

File No. 150990

Committee Item No. \_\_\_\_\_

Board Item No. 57

## COMMITTEE/BOARD OF SUPERVISORS

### AGENDA PACKET CONTENTS LIST

Committee: \_\_\_\_\_

Date: \_\_\_\_\_

Board of Supervisors Meeting

Date: December 8, 2015

#### Cmte Board

<input type="checkbox"/>	<input type="checkbox"/>	Motion
<input type="checkbox"/>	<input type="checkbox"/>	Resolution
<input type="checkbox"/>	<input type="checkbox"/>	Ordinance
<input type="checkbox"/>	<input type="checkbox"/>	Legislative Digest
<input type="checkbox"/>	<input type="checkbox"/>	Budget and Legislative Analyst Report
<input type="checkbox"/>	<input type="checkbox"/>	Youth Commission Report
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Introduction Form
<input type="checkbox"/>	<input type="checkbox"/>	Department/Agency Cover Letter and/or Report
<input type="checkbox"/>	<input type="checkbox"/>	MOU
<input type="checkbox"/>	<input type="checkbox"/>	Grant Information Form
<input type="checkbox"/>	<input type="checkbox"/>	Grant Budget
<input type="checkbox"/>	<input type="checkbox"/>	Subcontract Budget
<input type="checkbox"/>	<input type="checkbox"/>	Contract/Agreement
<input type="checkbox"/>	<input type="checkbox"/>	Form 126 – Ethics Commission
<input type="checkbox"/>	<input type="checkbox"/>	Award Letter
<input type="checkbox"/>	<input type="checkbox"/>	Application
<input type="checkbox"/>	<input type="checkbox"/>	Public Correspondence

#### OTHER

**(Click the text below for a direct link to the document)**

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>OCII Memo - November 16, 2015, Received November 17, 2015</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Appeal Letter - November 13, 2015</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>CCII Resolution No. 33-2015 - June 2, 2015</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>CCII Resolution No. 69-2015 - November 3, 2015</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Project Sponsor Brief - December 3, 2015</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Golden State Warriors/NBA Brief - November 30, 2015</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Mission Bay Alliance Brief - November 30, 2015</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>OCII Brief - November 30, 2015</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Draft Subsequent Environmental Impact Report</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Response to Comments</u>
NOTE: DSEIR and Response to Comments documents are linked on the Clerk of the Board's Legislative Research Center, and are not contained in the paper packet due to size limitations.		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Appellant Brief - November 30, 2015</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Clerical Documents and Hearing Notice</u>

Prepared by: John Carroll  
Prepared by: \_\_\_\_\_ 8557

Date: December 4, 2015  
Date: \_\_\_\_\_





November 16, 2015

***Via Email and U.S. Mail***

101-0732015-259

Angela Calvillo  
Clerk of the Board of Supervisors  
City Hall, Room 244  
San Francisco, CA 94102-4689

Re: Appeal of Certification of the Final Subsequent Environmental Impact Report ("FSEIR") for the Golden State Warriors Event Center and Mixed-Use Development Project at Mission Bay South Blocks 29-32, an Environmental Leadership Development Project (Office of Community Investment and Infrastructure ("OCII") Resolution No. 69-2015)

Dear Ms. Calvillo:

OCII is in receipt of an appeal dated November 13, 2015 regarding the Commission on Community Investment and Infrastructure certification of the FSEIR for the above-referenced project (the "Appeal"). OCII received this Appeal on November 13, 2015 before the close of business. OCII has determined that the Appeal has been filed in a timely manner and that the Appeal complies with the requirements of the procedures established by the Commission on Community Investment and Infrastructure Resolution No. 33-2015 for the appeal of a Final Environmental Impact Report certification of an Environmental Leadership Development Project, as defined under the California Public Resources Code section 21183.

OCII requests that a public hearing be set for the Appeal referenced above before the Board of Supervisors. Attached for your reference are a copy of the Appeal letter and a list of individuals and organizations that have requested notices regarding this Project.

Edwin M. Lee  
MAYOR

Tiffany Bohee  
EXECUTIVE DIRECTOR

Mara Rosales  
CHAIR

Miguel Bustos  
Marily Mondejar  
Leah Pimentel  
Darshan Singh  
COMMISSIONERS

Sincerely,

  
Tiffany Bohee  
Executive Director

C: Thomas N. Lippe, Esq., Mission Bay Alliance

**Attachments:**

1. Notice of Appeal and Appeal of Commission on Community Investment and Infrastructure and Resolution 69-2015
2. Notice Distribution List

One S. Van Ness Ave.,  
5th Floor,  
San Francisco, CA  
94103

415 749 2400

[www.sfocii.org](http://www.sfocii.org)

8558



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THOMAS N. LIPPE, APC

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12th Floor  
San Francisco, California 94105

Telephone: 415-777-5604  
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Email: [Lippelaw@sonic.net](mailto:Lippelaw@sonic.net)

November 13, 2015

Ms Tiffany Bohee  
Executive Director  
Office of Community Investment and Infrastructure  
1 South Van Ness Avenue, 5th Floor  
San Francisco, CA 94103

  
**RECEIVED**

**NOV 13 2015**

**Office of Community Investment & Infrastructure  
One S. Van Ness Avenue, 5th Floor  
San Francisco, CA 94103**

**Re: Notice of Appeal and Appeal of Commission on Community Investment and Infrastructure Resolution 69-2015, certifying the Final Subsequent Environmental Impact Report for the Warriors Arena Project, and Resolution 70-2015, adopting CEQA Findings for the Warriors Arena Project, both approved on November 3, 2015.**

Dear Ms Bohee:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project").

The Mission Bay Alliance hereby appeals

1. Resolution 69-2015, approved by the Commission on Community Investment and Infrastructure on November 3, 2015, certifying the Final Subsequent Environmental Impact Report for the Warriors Arena Project, attached hereto as Exhibit 1.
2. Resolution 70-2015, approved by the Commission on Community Investment and Infrastructure on November 3, 2015, making CEQA Findings included in Resolution 70-2015, attached hereto as Exhibit 2.

This appeal is brought pursuant to Public Resources Code section 21151(c),<sup>1</sup> OCII Resolution 33-2015 (approved June 2, 2015), the Memorandum entitled "Appeal Filing to the Board of Supervisors In Its Capacity as Governing Body of the Successor Agency" (attached hereto as Exhibit

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<sup>1</sup>"If a nonelected decisionmaking body of a local lead agency certifies an environmental impact report, approves a negative declaration or mitigated negative declaration, or determines that a project is not subject to this division, that certification, approval, or determination may be appealed to the agency's elected decisionmaking body, if any."



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3), and San Francisco Ordinance 25-12 (File No. 120898).

The grounds for this appeal are set forth below. The MBA intends this appeal to include all of the grounds it submitted to OCII in its many written and oral comments on the SEIR and Project, including but not limited to the grounds specifically listed in this letter. (See also, July 27, 2015, letter from the Alliance to OCII at FSEIR, Vol. 6, p. Com-37.)

Regarding the written and oral comments where these grounds were raised to OCII, each topic includes an index of said documents, and where helpful to clarify where a ground was so raised, certain grounds are followed by more specific references to the documentary record.

**A. PUBLIC COMMENT.**

1. The OCII thwarted public comment on the SEIR.

The October 23, 2015, notice of publication of the Response to Comments informed the public they would have no further opportunity to comment on the FSEIR/RTC. But the OCII hearing agenda for November 3, 2015, published on October 29, 2015, suggested that public comment on the FSEIR/RTC would be heard at the hearing, and in fact, it was. The October 23, 2015, notice of publication is inconsistent with CEQA section 21177(a), which contemplates public comment on EIRs up to the end of the hearing at which the project is approved. Therefore, the October 23, 2015, notice of publication has frustrated the ability of the public to comment. The City and OCII should remedy this misstep by recirculating the FSEIR with full disclosure that the public may comment on the FSEIR/RTC.

- November 2, 2015, letter from Thomas Lippe to OCII and Planning Department re: Comments on Final Subsequent Environmental Impact Report for the Warriors Arena Project Re Air Quality, Transportation, Hydrology, Water Quality, Biological, and Noise Impacts (“Nov 2 Lippe FSEIR”).

**B. PROJECT DESCRIPTION.**

1. The SEIR presents a shifting and inconsistent project description that thwarts informed decision-making and public participation about the project.

- July 26, 2015 letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-63-65;
- November 2, 2015 letter from Soluri Meserve, pp. 5-7

**C. TIERING.**

1. The SEIR attempts to rely on and tier from EIRs prepared in 1990 and 1998 for Mission Bay



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Redevelopment planning efforts, yet tiering is not permissible because the Project is different than the project described in the prior EIRs.

- (a) Reliance on the 1990 and 1998 EIRs for analysis of the impact areas excluded from consideration in the SEIR was impermissible because new information and/or changes in circumstances rendered the prior analyses inapplicable to the currently proposed Project.
  - (b) The Record contains substantial evidence supporting a fair argument that the Project will result in potentially significant impacts associated with the resource areas excluded from consideration in the SEIR or, alternatively, supplemental review is required under Public Resources Code section 21166 for those same resource areas.
  - (c) The SEIR's approach to environmental review, including relying on environmental documents almost two decades old as well as numerous subsequently prepared reports and other documents prepared outside of the CEQA process fails to provide a cohesive, understandable document meeting CEQA's mandates for adequacy, completeness, and a good faith effort at full disclosure.
- June 30, 2015, oral comments by Osha Meserve at FSEIR, Vol. 6, p. PH-45;
  - July 26, 2015, letter from the Brandt-Hawley Law Group, pp. 1-2;
  - July 26, 2015, letter from the Mission Bay Alliance, by Thomas Lippe, Susan Brandt-Hawley, Patrick Soluri, and Osha Meserve, to OCII and Planning Department regarding EIR tiering, at FSEIR, Vol. 6, p. 33;
  - June 30, 2015, oral comments by Osha Meserve at FSEIR, Vol. 6, p. PH-45;
  - November 2, 2015, letter from Soluri Meserve, pp. 1-3.

**D. AB900 AND ADMINISTRATIVE RECORD.**

1. OCII has failed to comply with applicable requirements to compile and maintain a complete and adequately indexed Record, and also failed to timely make the Record made available online at the time of release of the DSEIR. Therefore, the Project may not rely on AB 900 litigation fast tracking.. (See Resolution 70-2015, CEQA Findings, pp. 14, 17.)

- July 9, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, p. Com-30;
- July 26, 2015, letter from the Mission Bay Alliance, by Thomas Lippe, Susan Brandt-Hawley, Patrick Soluri, and Osha Meserve to OCII and Planning Department regarding litigation streamlining



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under AB 900 at FSEIR, Vol.6, p. Com-35;

- November 2, 2015, letter from Soluri Meserve, p. 3.

**E. ALTERNATIVES.**

1. The Draft SEIR fails to adequately address and the Final SEIR fails to adequately respond to comments regarding the inadequacy of EIR analysis of the No Project alternative.

- July 26, 2015, DSEIR comment letter from Susan Brandt-Hawley, at FSEIR, Vol.6, p. COM-44, ALT-2.

2. The Draft SEIR fails to adequately address and the Final SEIR fails to adequately respond to comments regarding the failure to consider a potentially-feasible off-site alternative.

- July 26, 2015, DSEIR comment letter from Susan Brandt-Hawley, at FSEIR, Vol.6, p. Com-44-45, ALT-3.

3. The OCII findings regarding the feasibility of alternatives are not supported by substantial evidence, including the findings regarding the off-site alternative proposed by the Alliance near Pier 80.

- November 3, 2015, letter to OCII from Susan Brandt-Hawley.
- October 13, 2015, letter to OCII from Susan Brandt-Hawley.

**F. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO AIR QUALITY IMPACTS.**

1. The Alliance's Air Quality related grounds for appeal are set forth in detail in the following documents:

- July 26, 2015, letter from Thomas Lippe to OCII and Planning Department re Air Quality Impacts including all exhibits identified in and attached to said letter ("July 26 Lippe") at FSEIR, Vol.6, p. Com-86;
- July 19, 2015, letter from Greg Gilbert of Autumn Wind Associates ("July 19 Gilbert") at FSEIR, Vol.6, p. Com-96;
- July 20, 2015, letter from Paul Rosenfeld and Jessie Jaeger of SWAPE ("July 20 SWAPE") at FSEIR, Vol.6, p. Com-104;



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- Nov 2 Lippe FSEIR;
- October 30, 2015, letter from Greg Gilbert of Autumn Wind Associates, submitted to OCII on November 3, 2015 (“October 30 Gilbert”);
- November 2, 2015, letter from John Farrow (“Nov 2 Farrow FSEIR”), attached as Exhibit A to Lippe Nov 2 FSEIR,
- November 2, 2015, letter report from Paul Rosenfeld and Jessie Jaeger of SWAPE to Thomas Lippe, attached as Exhibit 1 to Nov 2 Farrow FSEIR (“Nov 2 SWAPE”);
- “Health Risk Assessments for Proposed Land Use Projects,” California Air Pollution Control Officers Association 2009, attached as Exhibit 2 to Nov 2 Farrow FSEIR.<sup>2</sup>
- CEQA Air Quality Handbook, A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review, San Luis Obispo Air Pollution Control District 2012, attached as Exhibit 3 to Nov 2 Farrow FSEIR.<sup>3</sup>
- Mission Bay Land Use Plan, November 2005, attached as Exhibit 4 to Nov 2 Farrow FSEIR.<sup>4</sup>
- “Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessment.” Office of Environmental Health Hazard Assessment, February 2015, attached as Exhibit 5 to Nov 2 Farrow FSEIR.<sup>5</sup>
- Adoption of the Revised Air Toxics Hot Spots Program Technical Support Document for Cancer Potency Factors, Office of Environmental Health Hazard Assessment, June 1, 2009, attached as Exhibit 6 to Nov 2 Farrow FSEIR.<sup>6</sup>
- Adoption of the Revised Air Toxics Hot Spots Program Risk Assessment Guidelines: Revised Technical Support Document for Exposure Assessment and Stochastic Analysis, Office of

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<sup>2</sup>[http://www.capcoa.org/wpcontent/uploads/2012/03/CAPCOA\\_HRA\\_LU\\_Guidelines\\_8-6-09.pdf](http://www.capcoa.org/wpcontent/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf).

<sup>3</sup>[http://www.slocleanair.org/images/cms/upload/files/CEQA\\_Handbook\\_2012\\_v2%20%28Updated%20Sept%202015%29.pdf](http://www.slocleanair.org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20Sept%202015%29.pdf).

<sup>4</sup><http://sfocii.org/Modules/ShowDocument.aspx?documentid=783>.

<sup>5</sup>[http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html).

<sup>6</sup>[http://www.oehha.ca.gov/air/hot\\_spots/tsd052909.html](http://www.oehha.ca.gov/air/hot_spots/tsd052909.html).



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Environmental Health Hazard Assessment, August 27, 2012, attached as Exhibit 7 to Nov 2 Farrow FSEIR.<sup>7</sup>

- Technical Support Document for Exposure Assessment and Stochastic Analysis, Office of Environmental Health Hazard Assessment, August 2012, attached as Exhibit 8 to Nov 2 Farrow FSEIR.<sup>8</sup>

2. The City cannot use the SEIR's thresholds of significance for criteria air pollutants until it formally adopts them in a rule-making procedure. (July 26 Lippe, p. 3; July 19 Gilbert, p. 14.)

3. The SEIR's numerical construction and operational thresholds of significance for criteria pollutants (ozone precursors, PM10, PM2.5), toxics air contaminants, and health risk and its analysis of the significance of the Project's incremental and cumulative impacts from these pollutants for both construction and operation are invalid, based on legal errors and not supported by substantial evidence. (July 26 Lippe; July 19 Gilbert; July 20 SWAPE; Nov 2 Lippe FSEIR; October 30 Gilbert; Nov 2 Farrow FSEIR, Nov 2 SWAPE.)

(a) Air quality thresholds of significance for ozone precursors used in the SEIR are borrowed from another agency and not supported by substantial evidence. (July 26 Lippe, pp. 4-9; July 19 Gilbert, pp. 3-6; October 30 Gilbert, pp. 2-6.)

(b) Air quality thresholds of significance for ozone precursors used in the SEIR are based on inapplicable, outdated, non-scientific New Source Rule ("NSR") values. (July 26 Lippe, pp. 4-9; July 19 Gilbert, pp. 3-6; October 30 Gilbert, pp. 2-6.)

(c) The DSEIR's impact assessments for construction related criteria pollutants (ozone precursors, PM10, PM2.5) and TAC emissions are invalid. (July 26 Lippe, pp. 9-10; July 19 Gilbert, pp. 6-7);

(1) The SEIR underestimates the Project's construction related emissions by incorrectly using a default hauling trip length of 20-miles, provided by the California Emissions Estimator Model ("CalEEMod"), rather than actual trip length, to determine the on-road hauling emissions that would occur during construction. (July 26 Lippe, p. 10; July 20 SWAPE, 2-6.)

(d) The DSEIR's impact assessments for operational criteria pollutants (ozone

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<sup>7</sup>[http://www.oehha.ca.gov/air/hot\\_spots/tsd082712.html](http://www.oehha.ca.gov/air/hot_spots/tsd082712.html).

<sup>8</sup>[http://www.oehha.ca.gov/air/hot\\_spots/pdf/2012tsd/Chapter3\\_2012.pdf](http://www.oehha.ca.gov/air/hot_spots/pdf/2012tsd/Chapter3_2012.pdf).



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precursors, PM10, PM2.5) and TAC emissions are invalid. (July 26 Lippe, pp. 10-11; July 20 SWAPE, 2-6.)

- (1) The SEIR fails to include vehicle emissions from Warriors game traffic in its analysis of operational emissions. (July 26 Lippe, p. 11; July 19 Gilbert, p. 10; October 30 Gilbert, pp. 6-10.)

The DSEIR's impact assessment for operational ozone precursor emissions is also misleading because it omits from its quantitative tally of criteria pollutants the emissions the Project will generate in San Francisco and the Mission Bay neighborhood from basketball game-associated "vehicle miles traveled" (DSEIR, p. 5-37.) The DSEIR's rationale for this startling omission is that moving the Warriors games from Oakland to San Francisco will reduce the same number of "vehicle miles traveled" in Oakland that the Project will generate in San Francisco and the Mission Bay neighborhood.

This rationale is based on the unstated, but incorrect, assumption that the environmental setting at Oracle Arena and the Mission Bay site are identical. These settings are very different, in many crucial respects. First and foremost, the Mission Bay neighborhood and the surrounding areas of San Francisco are populated by San Franciscans, not Oaklanders. The residents, citizens, and registered voters of San Francisco are entitled to know what the Project's air quality impacts will be *on them*, regardless of whether the residents, citizens, and registered voters of Oakland will experience an air quality benefit as a result of the move. (July 26 Lippe, pp. 10-11.)

- (2) To the extent the SEIR's thresholds of significance are invalid, Mitigation Measure M-AQ-2b fails to reduce ozone precursor emissions to less-than-significant levels and SEIR does not consider the feasibility or effectiveness of more robust mitigation strategies that could reduce ozone precursor emissions further below the (invalid) thresholds. (See DSEIR, p. 5.4-39, Table 5.4-9, "Estimated Emissions Reduction Required".) (July 26 Lippe, p. 12.)

4. Mitigation Measure M-AQ-1 does not comply with CEQA's legal requirements.

(a) The SEIR attempts to mitigate the Project's criteria air pollutant emissions by limiting the offroad equipment used during construction to machinery equipped with, at a minimum, Tier 2 engines with 40 percent NOx verified diesel emission control strategies (VDECS), and at a maximum, Tier 4 or Tier 4 interim engines (Volume 2, p. 5.4-32). However, the SEIR does not demonstrate the feasibility of this proposed measure. The



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Project will need to acquire approximately 195 pieces of equipment outfitted with Tier 2 and/or Tier 4 engines. Due to the limited supply of cleaner-burning off-road equipment, the implementation of this measure, in its entirety, is highly unrealistic. As a result, the proposed Project should not rely on this mitigation measure to reduce emissions; rather the Project should pursue additional, feasible mitigation measures other than Tier 2/Tier 4 construction equipment to reduce the Project's criteria air pollutant emissions. (July 26 Lippe, p. 9; July 20 SWAPE, 6-8; October 30 Gilbert, pp. 10-14.)

(b) M-AQ-1 includes a limit on idling time of two minutes, and provides exceptions to this limit as provided in state law (DSEIR, p. 5.4-36), but fails to describe what these exceptions are. The DSEIR must fully describe this measure in order for the public and City decision makers to assess its effectiveness. (July 26 Lippe, p. 10.)

(c) M-AQ-1 is unenforceable and places inappropriate reliance on project sponsor for interpretation and compliance determinations. (July 26 Lippe, p. 10; July 19 Gilbert, pp. 7-10; October 30 Gilbert, pp. 14-16.)

(d) The Response to Comment AQ-6a is Inadequate. (Nov 2 Lippe FSEIR, pp. 2-3; October 30 Gilbert, p. 11.)

(e) The Response to Comment AQ-6e is Inadequate. (Nov 2 Lippe FSEIR, pp. 3-5; October 30 Gilbert, pp. 14-16.)

5. Mitigation Measure M-AQ-2b does not comply with CEQA's legal requirements and the response to this comment is Inadequate. (Nov 2 Lippe FSEIR, pp. 5-6; October 30 Gilbert, pp. 17-19; 19-21.)

(a) The per ton charge for emission offsets is too low to achieve complete offset of the Project's emissions (Comment AQ-7). (July 26 Lippe, pp. 11-12; October 30 Gilbert, pp. 17-19.)

(b) Mobile-based emission offsets sources are too short lived to completely offset Project generated emissions. (July 26 Lippe, pp. 12-13; July 19 Gilbert 14-15; October 30 Gilbert, pp. 19-21.)

6. The SEIR's cancer and health risk assessment for toxic air contaminants is invalid, based on legal errors and not supported by substantial evidence.

(a) The City's reliance on the EPA's judgment of "acceptable" cancer risk is legally flawed for several reasons. First, the City relies on a simplistic misrepresentation of actual EPA policy. Second, even if EPA policy is what the City implies it is, the DSEIR errs as a



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matter of CEQA law by using the EPA's judgment of "acceptable" cancer risk to determine the significance of the Project's impacts. (July 26 Lippe, pp. 13-18.)

(b) The SEIR does not assess the Project's individual excess cancer risk to the Bay Area Air Quality Management District's (BAAQMD) 10 in one million significance threshold. Rather, it determines the Project's significance by comparing the cumulative cancer risk (background risk plus Project risk) to BAAQMD's cumulative risk threshold of 100 in one million. (July 26 Lippe, pp. 13-18.)

(c) The DSEIR fails to utilize BAAQMD's cumulative PM2.5 threshold of 0.8  $\mu\text{g}/\text{m}^3$ . (July 26 Lippe, pp. 18-19; July 20 SWAPE, pp. 10-11.)

(d) The FSEIR fails to provide a project-specific health risk assessment for the Project. The thresholds of significance and the analysis in the FSEIR provide only a cumulative impact analysis. Thus, the FSEIR fails to consider whether the Project's toxic air contaminant (TAC) emissions are, by themselves, a significant impact. Although the FSEIR fails to identify a threshold of significance for project-specific effects, Project-caused excess TAC cancers are more than four times the threshold used by most California air districts to determine the significance of an individual project's impacts. (Nov 2 Farrow FSEIR, pp. 1-3; July 20 SWAPE, pp. 8-10; Nov 2 SWAPE, pp. 2-4.)

(e) The SEIR's assessment of cumulative TACs is invalid because it fails to include all sources of related impacts. The FSEIR fails to include all foreseeable sources of TAC emissions in its cumulative impact analysis, as it omits foreseeable future construction and operation of developments approved in the vicinity of the Project. The health risk assessment should be revised to include TAC emissions from these sources, as they could potentially result in a significant cumulative impact. (Nov 2 Farrow FSEIR, p. 3; Nov 2 SWAPE, pp. 4-12.)

(f) Project health risks are underestimated using older standards. The FSEIR fails to incorporate updated child breathing rates, set forth by OEHHA, in its health risk assessment. Even though OEHHA published these higher breathing rates for children in 2012 and recommends that TAC analyses use these rates, and even though comments requested that the FSEIR provide an updated analysis using these breathing rates, the FSEIR failed to do so. (July 19 Gilbert, pp. 13-14; Nov 2 Farrow FSEIR, pp. 4-5; Nov 2 SWAPE, pp. 12-15.)

7. The SEIR's impact assessment for construction-related dust pollution is based on legal errors or is not supported by substantial evidence. (July 26 Lippe, pp. 1-3.)

8. Construction and operational mitigation options have not been thoroughly reviewed for diesel alternatives. (July 19 Gilbert, pp. 6-7; October 30 Gilbert, p. 16-17.)



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9. Operational mitigation measure for electrical outlets is vague and unenforceable. (July 19 Gilbert, p. 10.)
10. Construction emissions from wastewater improvements have not been adequately Reviewed in the SEIR. (See July 24, 2015, letter from Thomas Lippe to OCII re Hydrology, Water Quality and Biological Impacts, pp. 1-4; July 19 Gilbert, pp. 2-3.)
11. Changes to the project since publication of the DSEIR require recirculation of a revised DSEIR due to new and more severe significant impacts. (Lippe Nov 2 FSEIR, pp. 6-7.)
12. New Information regarding Mitigation Measure M-AQ-2b since publication of the DSEIR require recirculation of a revised DSEIR. ((Lippe Nov 2 FSEIR, pp. 5-6; October 30 Gilbert, pp. 17-18; Oral testimony of Thomas N. Lippe at November 3, 2015, OCII hearing).

By letter dated November 2, 2015, to the OCII, the Bay Area Air Quality Management District announced that it would not participate in Mitigation Measure M-AQ-2b's offset plan because the City and Project Sponsor refuse to agree to BAAQMD's offset fees.

The City cannot find that "Impact AQ-4: Potential conflicts with BAAQMD's 2010 Clean Air Plan" is less than significant with mitigation because the City and Project Sponsor refuse to agree to BAAQMD's offset fees per Mitigation Measure M-AQ-2b. (See Exhibits 4 and 5.)

There is also no evidence that the "Option 2" offset within Mitigation Measure M-AQ-2b is feasible. There are too many unanswered questions regarding Option 2, including lack of assured verification of offsets to ensure their effectiveness, and lack of assurance that offset sources are available in the quantity required. BAAQMD's offset program at least answers some, if not all, of these questions.

The City cannot find that all feasible mitigation measures that would substantially reduce "Impact AQ-1: Impacts of Criteria Air Pollutants from Construction" have been adopted as required by CEQA section 21081, because there is no evidence that paying the offset fees demanded by BAAQMD is infeasible. Also, as discussed above, there is no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible; therefore, it is not an adequate substitute for BAAQMD's offset program. This also applies to Impact AQ-2 [Impacts of Criteria Air Pollutants from Project Operations]; and Impact C-AQ-1 [Project Contribution to Regional Air Quality Impacts].

**G. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO TRANSPORTATION IMPACTS.**



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1. The Alliance's Transportation-related grounds for appeal are set forth in detail in the following documents:

- July 27, 2015, letter from Thomas Lippe to OCII and Planning Department re Transportation Impacts ("July 27 Lippe") at FSEIR, Vol. 6, p. Com-117, , including all exhibits listed on page 20 thereof, including:
- Exhibit 1 thereto, July 23, 2015, letter to Tom Lippe from traffic engineer Dan Smith ("July 23 Smith") at FSEIR, Vol. 6, p. Com-127; and
- Exhibit 2 thereto, July 21, 2015, letter to Tom Lippe from traffic engineer Larry Wymer ("July 21 Wymer") at FSEIR, Vol. 6, p. Com-141;
- Nov 2 Lippe FSEIR, including:
- As Exhibit F thereto, a November 2, 2015, letter from Dan Smith ("Nov 2 Smith FSEIR")
- As Exhibit G thereto, a November 2, 2015, letter from Larry Wymer ("Nov 2 Wymer FSEIR").
- November 10, 2015, letter from Dan Smith to Tom Lippe re Emergency Access, which is attached hereto as Exhibit 4 ("Nov 10 Smith FSEIR Access").
- November 10, 2015, letter from Dan Smith to Tom Lippe re Port Parking Facilities, which is attached hereto as Exhibit 5 ("Nov 10 Smith FSEIR Port").
- November 13, 2015, letter from Dan Smith to Tom Lippe re King Street Electrical Work, which is attached hereto as Exhibit 6 ("Nov 13 Smith FSEIR King St").

2. The SEIR fails to assess the Project's traffic impacts on the entire affected environment.

(a) The City's selections of intersections (and freeway ramps) studied in the DSEIR excludes intersections it knew or should have known would potentially be significantly impacted by the project.

- July 27 Lippe, p. 1; July 23 Smith, p. 8; July 21 Wymer, pp. 1-12; Nov 2 Smith FSEIR pp. 5-8; Nov 2 Wymer FSEIR.

3. The SEIR fails to disclose the severity of the Project's impacts on intersections and freeway ramps which the project will cause to deteriorate to Level of Service (LOS) F.

- July 27 Lippe, p. 3; July 23 Smith, p. 11; July 21 Wymer, p. 12-13; Nov 2 Smith FSEIR p. 16-18.



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4. The SEIR fails to identify the significance and severity of the Project's impacts on intersections where the Project will use Parking Control Officers.

- July 27 Lippe, p. 4; July 23 Smith, p. 11; Nov 2 Smith FSEIR pp. 16-18.

5. The SEIR's analysis of the project's construction-related traffic congestion and delay impacts is legally flawed because it is based on invalid criteria, it fails to lawfully assess the Project's cumulative construction period impacts, and it improperly defers the development of mitigation measures to reduce the Project's construction-related traffic impacts to less than significant.

- July 27 Lippe, pp. 5-7; July 23 Smith, p. 15; Nov 2 Smith FSEIR p. 22.

6. The SEIR's Analysis of the Project's Operational Traffic and Transit Congestion and Delay Impacts Is Legally Flawed.

(a) The SEIR understates traffic and transit volumes in the PM peak period of 4:00 to 6:00 PM by using "time of arrival" at the Arena as a proxy measurement for "time of travel."

- July 27 Lippe, p. 7; July 23 Smith, p. 1; July 21 Wymer, p. 12-13; Nov 2 Smith FSEIR p. 13-16.

(b) The DSEIR only analyzes impacts of weeknight basketball games that start at 7:30 PM, not at other start times closer to the PM peak.

- July 23 Smith, p. 5; July 21 Wymer, pp. 12-13; Nov 2 Smith FSEIR pp. 3-5.

7. The SEIR's Analysis of the Project's Cumulative Impacts Does Not Comply With CEQA.

(a) The 5% threshold of significance for impacts at intersections and freeway ramps operating at LOS E or F violates CEQA.

- July 27 Lippe, p. 11.

(b) The year 2040 baseline for assessing the significance of the Project's cumulative impacts violates CEQA and the SEIR's excessively distant time frame and massive development assumptions masks significance of project's nearer term cumulative impacts.

- July 27 Lippe, p. 12; July 23 Smith, pp. 25-26; Nov 2 Smith FSEIR pp. 20-22.

(c) The SEIR's use of a "projection" based approach to the Project's cumulative impacts is misleading.



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- July 27 Lippe, p. 13.

(d) The SEIR's cumulative analysis fails to consider and analyze the project in the context of the City's proposal to remove the northern portion of I-280 as far south as the Mariposa Street interchange.

- July 23 Smith, p. 13.

8. The SEIR's methodology for analyzing project impacts on the transit system is legally flawed. The SEIR's use of transit screenline and route capacities is misleading and unsupported, so the City's process for evaluating a project's impacts on public transit evades disclosure of significant impacts. The SEIR's use of a project specific threshold of significant impact of 100 percent of screenline capacity rather than the normal 85 percent of screenline capacity exacerbates overcrowding impacts on the regular user community of and is unsupported and unwarranted.

- July 27 Lippe, p. 14; July 23 Smith, pp. 5-8; Nov 2 Smith FSEIR p. 18-20.

9. The SEIR Unlawfully Defers the Development of Mitigation Measures.

- Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts. (DSEIR, p. 1-15.)
- Mitigation Measure E.47: Transportation System Management Plan. (DSEIR, p. 1-17.)
- Mitigation Measure M-TR-5a: Additional Caltrain Service. (DSEIR, p. 1-18.)
- Mitigation Measure M-TR-5b: Additional North Bay Ferry and/or Bus Service. (DSEIR, p. 1-19.)
- Mitigation Measure M-TR-9a: Crane Safety Plan for Project Construction. (DSEIR, p. 1-20.)
- Mitigation Measure M-TR-9d: Event Center Exterior Lighting Plan. (DSEIR, p. 1-21.)
- Mitigation Measure M-TR-11b: Participation in the Ballpark/Mission Bay Transportation Coordinating Committee. (DSEIR, p. 1-22.)
- Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events. (DSEIR, p. 1-23.)
- Mitigation Measure M-TR-13: Additional Muni Transit Service during Overlapping Events. (DSEIR, p. 1-24.)



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- Mitigation Measure M-TR-14: Additional BART Service to the East Bay during Overlapping Events. (DSEIR, p. 1-24.)

- Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring. (DSEIR, p. 1-25.)

- July 27 Lippe, p. 16; July 23 Smith, pp. 17-25.

10. Mitigation measures are vague, insubstantive, unresponsive to the impact purportedly addressed or do not qualify as mitigation under ceqa.

- Improvement Measure I-TR-1

- Mitigation Measure M-TR-2a

- Mitigation Measure M-TR-2b

- Impact and Mitigation Measure TR-5a

- Impact and Mitigation Measure TR-5b

- July 23 Smith, pp. 17-25.

11. The SEIR impermissibly characterizes mitigation measures for the Project's transportation impacts as elements or components of the Project thereby failing to adequately analyze and disclose the Project's potentially significant impacts separate from the analysis of the feasibility and effectiveness of proposed mitigation measures.

- November 3, 2015, letter from Soluri Meserve to SFMTA, pp. 1-3;

• July 26, 2015, letter from Dan Smith of Smith Engineering & Management at FSEIR, Vol. 6, pp. Com-135-139;

- July 27 letter from Thomas Lippe at FSEIR, p. Com-126.

12. By characterizing mitigation measures for the Project's transportation impacts as elements or components of the Project, the SEIR fails to set forth enforceable mitigation.

- November 3, 2015, letter from Soluri Meserve to SFMTA, pp. 1-3;

• July 26, 2015, letter from Dan Smith of Smith Engineering & Management at FSEIR, Vol. 6, pp.



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Com-135-139;

- July 27 letter from Thomas Lippe at FSEIR, p. Com-126.

13. The SEIR relies on the Project's contribution to a fair-share fee program to mitigate the Project's transportation impacts without adequately disclosing the required information about such mitigation.

- November 3, 2015, letter from Soluri Meserve to SFMTA, pp. 1-4;
- November 2, 2015, letter from Dan Smith of Smith Engineering & Management, pp. 2-3.  
Urban Decay

14. The Transit Analysis understates impacts because it relies on stale transit baseline data.

- July 23 Smith, p. 9; Nov 2 Smith FSEIR pp. 9-13.

15. The Traffic Analysis understates impacts because it relies on stale traffic baseline data.

- July 23 Smith, p. 10; Nov 2 Smith FSEIR pp. 9-13.

16. The SEIR's discussion of transportation impacts is incomplete.

- July 27 Lippe, p. 18; Nov 2 Smith FSEIR p. 1-3;

17. Complex interrelated issues are not addressed in the SEIR

- July 23 Smith, p. 12.

18. There is no evidence the DSEIR considered the disruptive impacts of the at-grade rail crossing of 16th Street on intersection LOS at the intersections of 16th and 3rd and 16th and 7th Streets.

July 23 Smith, p. 14.

19. The Project's truck loading and truck staging provisions are inadequate.

- July 23 Smith, p. 14; Nov 2 Smith FSEIR p. 22.

20. The SEIR concludes, without adequate foundation, that the project would not have an adverse impact on emergency access to UCSF hospitals.



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- July 23 Smith, p. 16; Nov 2 Smith FSEIR p. 22; Nov 10 Smith FSEIR Access.

21. New information since publication of the DSEIR require recirculation of a revised DSEIR because the omission of this information from the DSEIR rendered public comment meaningless.

Section 13.11.6 – Response TR-5 of the FSEIR/RTC responds to comments by BART (Comments A-BART-1, -4, -5, -7, -8, and -9) and the Alliance (O-MBA10L4-19) supplying a station-level analysis of impacts on BART that was critically missing in the DSEIR. This station-level analysis provides completely new information, including Table 13.11-2, and conclusions that were previously missing. Consequently, the information should be available for review for the full 45 day review period in Recirculated Draft status under CEQA.

- Nov 2 Smith FSEIR p. 22.

22. Changes to the project since publication of the DSEIR require recirculation of a revised DSEIR due to new and more severe significant impacts. The new project variant will dig up King Street for six months and Third Street for fourteen months. (FSEIR, pp. 12-11, 12-25.) This will exacerbate construction phase impacts on traffic, either creating new significant impacts not previously identified in the SEIR.

- Nov 13 Smith FSEIR King St.

**H. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO HYDROLOGY, WATER QUALITY, AND BIOLOGICAL IMPACTS.**

1. The Alliance's Hydrology, Water Quality, and Biological Impacts related grounds for appeal are set forth in detail in the following documents:

- July 24, 2015, letter from Thomas Lippe to OCII and Planning Department re Impacts on Hydrology, Water Quality, and Biological Resources ("July 24 Lippe") at FSEIR, Vol. 6, p. Com-147, including:
- July 21, 2015, letter to Thomas Lippe from Matt Hageman ("July 21 Hageman") at FSEIR, Vol. 6, p. Com-155;
- July 21, 2015, letter to Thomas Lippe from Erik Ringelberg and Kurt Balasek ("July 21 Ringelberg") at FSEIR, Vol. 6, p. Com-159;
- July 22, 2015, letter report by geotechnical engineer Martin Cline and Kurt Balasek, regarding Hazardous Materials ("July 22 Cline"), at FSEIR, Vol. 6, p. Com-70 (attached as Exhibit B to July



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26, 2015 Soluri Meserve letter to OCII re DSEIR at FSEIR, Vol. 6, p. Com-48.)

- Nov 2 Lippe FSEIR;
- As Exhibit H thereto, November 2, 2015, letter to Thomas Lippe from Matt Hageman (“Nov 2 Hageman”).
- As Exhibit I thereto, a November 2, 2015, letter from Erik Ringelberg and Kurt Balasek of BSK Associates (“Nov 2 BSK”)
- As Exhibit J thereto, a November 2, 2015, letter from Erik Ringelberg (“Nov 2 Ringelberg”).
- As Exhibit K thereto, a July 16, 2015, BSK Technical Memorandum Regarding the Proposed Warrior Arena Wetland Features by Erik Ringelberg and Kevin Grove (“July 16 BSK Wetland”).
- As Exhibit L thereto, an October 29, 2015, Draft Waters and Wetland Delineation Report Proposed Mission Bay Development, Blocks 29-32 San Francisco, California, by Erik Ringelberg and Kevin Grove of BSK Associates (“Oct 29 BSK Wetland”).

2. The DSEIR is not sufficient as an informational document with respect to the project’s wastewater treatment infrastructure impacts, and the Response to this comment (UTIL-3) is inadequate.

- July 26 Lippe, pp. 1-4; Nov 2 Lippe FSEIR, pp. 8-10;

3. The DSEIR is not sufficient as an informational document with respect to the Project’s contaminated wastewater (i.e. combined sewage and stormwater) impacts on San Francisco Bay water quality or biological resources (including from inadequately treated sewage and toxic chemicals (e.g., PCB’s and metals), and the FSEIR’s Response to these comments (Hyd-3 - Hyd-6) are inadequate.

- July 26 Lippe, pp. 4-10; Nov 2 Lippe FSEIR, pp. 10-12; July 21 Hageman; Nov 2 Hageman; Nov. 2 BSK; July 22 Cline, pp. 1-15.

4. The DSEIR is not sufficient as an informational document with respect to project impacts on biological resources, including wetlands and wildlife.

- (a) The SEIR’s exclusion of the Project’s impacts on biological resources is erroneous because there is substantial evidence supporting a fair argument the Project may have a significant effect by destroying the on-site wetland. And even if CEQA section 21166 applies, CEQA requires including this issue in the subsequent EIR because the presence of



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the wetland is a change in circumstances since certification of the 1998 FSEIR that gives rise to the potential for new significant effects not previously identified.

(b) The SEIR's exclusion of the Project's impacts on biological resources is erroneous because the lead agency failed to prepare any CEQA document that adequately describes the Project's environmental setting to allow an assessment of the Project's impacts on biological resources.

(c) The SEIR's failure to analyze wetland resources on the Project site resulted in the failure to disclose the Project's need for a federal Clean Water Act section 404 fill permit, as well as a consistency determination under the Coastal Zone Management Act.

- July 26 Lippe, pp. 11-15; July 16 BSK Wetland; July 21 Ringelberg; Oct 29 BSK Wetland; Nov 2 Lippe FSEIR, pp. 10-15; Nov 2 BSK; Nov 2 Ringelberg; October 7, 2015, letter to OCII from Soluri Meserve regarding Clean Water Act 404 and CZMA Consistency.

5. The SEIR fails to include all feasible mitigation measures to lessen or mitigate impacts to state and/or federal jurisdictional wetland features.

- July 26 Lippe, pp. 11-15; July 16 BSK Wetland; July 21 Ringelberg; Oct 29 BSK Wetland; Nov 2 Lippe FSEIR, pp. 12-13; Nov 2 BSK; Nov 2 Ringelberg.

6. The SEIR fail to include all feasible mitigation to lessen or mitigate the significant and unavoidable cumulative impact associated with exceeding of the capacity of the Mariposa Pump Station.

- July 26 Lippe, pp. 1-10; Nov 2 Lippe FSEIR, pp. 8-12; Nov 2 BSK; Nov 2 Ringelberg.

7. The DSEIR is not sufficient as an informational document with respect to the Project's flooding risk and inundation impacts.

- July 26 Lippe, pp. 15-16.

**I. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO NOISE IMPACTS.**

1. The Alliance's Noise related grounds for appeal are set forth in detail in the following documents:

- July 25, 2015, letter from Thomas Lippe to OCII and Planning Department re Noise Impacts ("July 25 Lippe"), at FSEIR, Vol. 6, p. Com-109, including all the exhibits attached thereto,



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including:

- July 24, 2015, letter to Thomas Lippe from acoustic engineer Frank Hubach (“July 24 Hubach”) at FSEIR, Vol. 6, p. Com-113,
- Nov 2 Lippe FSEIR, including
- As Exhibit S thereto, November 2, 2015, letter to Thomas Lippe from acoustic engineer Frank Hubach (“Nov 2 Hubach”)

2. The SEIR rigidly adheres to the regulatory scheme of the San Francisco Noise Ordinance in assessing the significance of Project generated noise, and this is true of both impact and non-impact equipment to be sued in construction and operational noise sources such as crowds and traffic. This is an error of law, because it injects the question of what is “allowed” into the determination of “significance.” The question of what is allowed is the final step in the CEQA process, and involves weighing considerations relating to the social and economic benefits of the Project.

Injecting consideration of what is “allowed” into the first step subverts the integrity of the entire analysis. For projects for which an EIR has been prepared, both the EIR and the mandatory findings required by CEQA section 21081, the analysis starts with whether an impact is significant.

A finding of significance triggers the obligation to identify and adopt feasible mitigation measures that are effective in substantially reducing the significant impact. Once all feasible and effective mitigation measures have been identified and adopted, if the impact remains significant, the agency may approve the project if it finds that social or economic considerations outweigh environmental harm. Each of these steps in the analysis is distinct.

The RTC’s responses to comments conflate and confuse these steps, and thereby undermine the integrity of the analysis. This conflation of the distinct steps in the analysis explains why the FSEIR/RTC’s insistence on using the San Francisco Police Code’s regulatory requirements (i.e., the City’s final resolution of what is allowed and what is not allowed) as thresholds of significance is inconsistent with CEQA. The Police Code’s regulatory requirements reflect the City’s effort to balance the protection of people from harmful noise against the need for social and economic activity. That balance does not necessarily reflect the point at which impacts become significant. Under CEQA, such balancing is also required, but not where significance is determined. In short, even where the lead agency believes an activity should be “allowed” because the social or economic considerations outweigh the environmental harm, the EIR must still disclose whether the impact is significant.

- July 25 Lippe; July 24 Hubach, Nov 2 Lippe FSEIR, pp. 1-2, 14-15; Nov 2 Hubach.



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3. The SEIR uses “ambient plus increment” thresholds of significance for all noise impacts. This is a legal error because as described by Mr. Hubach in the context of operational noise impacts (Impact NO-5), the DSEIR uses a series of “ambient plus increment” thresholds. As discussed by Mr. Hubach, using “ambient plus increment” thresholds where existing noise levels are already high:

disregards the fact the Project will make severe conditions worse. In addition, using these “ambient plus increment” thresholds for operational noise results in an unsustainable gradual increase in ambient noise. It is a formula for ever-increasing noise levels because each new project establishes a new, higher, baseline; then when the next project is approved, the incremental change will be added to the new baseline.

(July 24 Hubach, p. 5.)

By ignoring the severity of existing noise levels and only looking to the “de minimis” nature of the Project’s incremental effect, the DSEIR’s noise impact determinations violate CEQA. (See *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 120 (“CBE”) “[T]he relevant question”... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether “any additional amount” of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant. [footnote omitted]”).<sup>9</sup> *Communities* and *Kings County* teach that the significance of a cumulative impact depends on the environmental setting in which it occurs, especially the severity of existing environmental harm.

- July 25 Lippe; July 24 Hubach, Nov 2 Lippe FSEIR, pp. 1-2, 14-15; Nov 2 Hubach.

4. The SEIR fails to use thresholds of significance based on human health and welfare (e.g., the thresholds stated in San Francisco Police Code section 2909(d) without the narrow regulatory constraints of that ordinance, or the World Health Organization (WHO) standards referenced in the Alliance’s comment letter.

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<sup>9</sup>*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-21 [“They contend in assessing significance the EIR focuses upon the ratio between the project’s impacts and the overall problem, contrary to the intent of CEQA.... We find the analysis used in the EIR and urged by GWF avoids analyzing the severity of the problem and allows the approval of projects which, when taken in isolation, appear insignificant, but when viewed together, appear startling. Under GWF’s ‘ratio’ theory, the greater the overall problem, the less significance a project has in a cumulative impacts analysis. We conclude the standard for a cumulative impacts analysis is defined by the use of the term ‘collectively significant’ in Guidelines section 15355 and the analysis must assess the collective or combined effect of energy development”].)



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- July 25 Lippe, pp. 4-7; July 24 Hubach, pp. 3-6, Nov 2 Lippe FSEIR, pp. 1-2, 14-15; Nov 2 Hubach.

**J. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO GREENHOUSE GAS EMISSION IMPACTS.**

1. The SEIR's conclusion that greenhouse gas ("GHG") emissions are less than significant is not supported by substantial evidence.

- June 30, 2015, oral comments by Osha Meserve and Susan Vaughn at FSEIR, Vol. 6, PH-44 - PH-45;
- July 26, 2015, letter from Soluri Meserve, pp. 2-6;
- July 27, 2015, letter from Susan Vaughn, Sierra Club, FSEIR, Vol. 6, COM-180 - COM 181;
- July 20, 2015, letter report by air quality professionals Patrick Sullivan, CPP, REPA, and John Henkelman, regarding Greenhouse Gas Emissions, pp. 1-34 (Exhibit A to July 26, 2015 Soluri Meserve letter);
- November 2, 2015, letter from Soluri Meserve, pp. 3-6;
- November 2, 2015, letter report by air quality professionals Patrick Sullivan, CPP, REPA, and John Henkelman, regarding Greenhouse Gas Emissions, pp. 1-4 (Exhibit 1 to November 2, 2015 Soluri Meserve letter).

2. Recirculation is required due to the FSEIR's change in approach to GHG analysis from the quantitative analysis described in the DSEIR that relied on the faulty GHG inventory prepared for AB 900 Leadership Development Project certification concluding there would be "no net emissions" to a "qualitative" analysis stating GHG emissions would be less than significant based on the Project's consistency with the local GHG reduction plan.

- November 2, 2015, letter from Soluri Meserve, pp. 3-6;
- November 2, 2015, letter report by air quality professionals Patrick Sullivan, CPP, REPA, and John Henkelman, regarding Greenhouse Gas Emissions, pp. 1-4 (Exhibit 1 to November 2, 2015 Soluri Meserve letter).

3. As quantitative methods of assessing Project-level GHG emissions are available, the EIR's lack of quantification of the impact was a failure to proceed in the manner provided by law.



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- November 2, 2015, letter report by air quality professionals Patrick Sullivan, CPP, REPA, and John Henkelman, regarding Greenhouse Gas Emissions, pp. 1-4 (Exhibit 1 to November 2, 2015, Soluri Meserve letter);

- November 2, 2015, letter from Soluri Meserve, pp. 4-5.

4. The SEIR fails to require all feasible mitigation of the GHG emissions from the Project.

- July 26, 2015, letter from Soluri Meserve, pp. 4-6;

- November 2, 2015, letter from Soluri Meserve, pp. 3-6.

5. The SEIR impermissibly conflates analysis of the Project's design features (Improvement Measures) and mitigation measures, and thus fails to consider whether other possible mitigation measures would be more effective

6. The FSEIR fails to adequately respond in good faith to comments about the GHG analysis, including but not limited to explaining why it was proper to exclude the office towers from the GHG emissions inventory.

- November 2, 2015, letter from Soluri Meserve, pp. 3-5.

**K. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO GEOLOGY AND SOILS IMPACTS.**

1. The Record contains substantial evidence supporting a fair argument that the Project will result in potentially significant Geology and Soils impacts or, alternatively, supplemental review is required under Public Resources Code section 21166.

- July 26, 2015, letter from Soluri Meserve, pp. 13-20;

- July 21, 2015, letter report by geotechnical engineer Lawrence Karp, CE, CEG, regarding Geology and Soils impacts, pp. 1-11 (Exhibit C to July 26, 2015 Soluri Meserve letter);

- July 20, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-18 (Exhibit D to July 26, 2015, Soluri Meserve letter);

- November 2, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-4 (Exhibit 2 to November 2, 2015 Soluri Meserve letter);



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- November 2, 2015, letter from Soluri Meserve, pp. 9-11;

2. Reliance on the 1998 SEIR analysis of Geology and Soils was impermissible because the Project is different than the project described in the 1998 FSEIR, the 1998 FSEIR relies on outdated data and methodology to analyze impacts, and conditions have changed such that the 1998 FSEIR does not describe the present conditions at the site.

- July 26, 2015, letter from Soluri Meserve, pp. 13-20;

- July 21, 2015, letter report by geotechnical engineer Lawrence Karp, CE, CEG, regarding Geology and Soils impacts, pp. 1-11 (Exhibit C to July 26, 2015 Soluri Meserve letter);

- July 20, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-18 (Exhibit D to July 26, 2015 Soluri Meserve letter);

- November 2, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-4 (Exhibit 2 to November 2, 2015 Soluri Meserve letter);

- November 2, 2015, letter from Soluri Meserve, pp. 9-11

3. The EIR impermissibly defers development of mitigation measures necessary to ensure that Geology and Soils impacts are mitigated to less than significant levels.

- July 26, 2015, letter from Soluri Meserve, pp. 18-20;

- July 21, 2015, letter report by geotechnical engineer Lawrence Karp, CE, CEG, regarding Geology and Soils impacts, pp. 1-11 (Exhibit C to July 26, 2015 Soluri Meserve letter);

- July 20, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-18 (Exhibit D to July 26, 2015, Soluri Meserve letter);

- November 2, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-4 (Exhibit 2 to November 2, 2015 Soluri Meserve letter);

- November 2, 2015, letter from Soluri Meserve, pp. 9-11.

4. Recirculation is required due to new information presented in the FSEIR and within the



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Record regarding Geology and Soils impacts.

- July 22, 2015, letter report by geotechnical engineer Lawrence Karp, CE, CEG, regarding Geology and Soils impacts;
- July 22, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts);

5. The FSEIR fails to adequately respond in good faith to comments about Geology and Soils analysis.

- November 2, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-4 (Exhibit 2 to November 2, 2015 Soluri Meserve letter);

**L. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO HAZARDS AND HAZARDOUS MATERIALS IMPACTS.**

1. The Record contains substantial evidence supporting a fair argument that the Project will result in potentially significant Hazards and Hazardous Materials impacts or, alternatively, supplemental review is required under Public Resources Code section 21166.

- July 26, 2015, letter from Soluri Meserve, pp. 7-20;
- November 2, 2015, letter from Soluri Meserve, pp. 11-14;
- July 22, 2015, letter report by geotechnical engineer Martin Cline, GEG and Kurt Balasek, PG, CHg, QSD, regarding Hazardous Materials, pp. 1-15 (Exhibit B to July 26, 2015, Soluri Meserve letter);
- October 20, 2015, letter to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review for Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 - Updated Soil and Screening Levels

2. Reliance on the 1998 SEIR analysis of Hazards and Hazardous Materials was impermissible because the Project is different than the project described in the 1998 FSEIR, the 1998 FSEIR relies on outdated data and methodology to analyze impacts, and conditions have changed such that the 1998 FSEIR does not describe the present contamination at the site.

- July 26, 2015, letter from Soluri Meserve, pp. 7-13;



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- November 2, 2015, letter from Soluri Meserve, pp. 11-14;
- July 22, 2015, letter report authored by geotechnical engineer Martin Cline, GEG and Kurt Balasek, PG, CHg, QSD, regarding Hazardous Materials, pp. 1-15 (Exhibit B to July 26, 2015 Soluri Meserve letter);
- October 20, 2015, letter from Soluri Meserve to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review - Updated Soil and Screening Levels;
- October 20, 2015, report by Damian applied Technology regarding Updated Soil and Groundwater Screening Levels for the Golden State Warriors Arena;

3. Significant new information since the certification of the 1998 SEIR requires analysis of Hazards and Hazardous Materials impacts from risks of exposure.

- July 26, 2015, letter from Soluri Meserve, pp. 7-13
- November 2, 2015, letter from Soluri Meserve, pp. 11-14;
- July 22, 2015, letter report authored by geotechnical engineer Martin Cline, GEG and Kurt Balasek, PG, CHg, QSD, regarding Hazardous Materials, pp. 1-15 (Exhibit B to July 26, 2015 Soluri Meserve letter);
- October 20, 2015, letter from Soluri Meserve to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review - Updated Soil and Screening Levels;
- October 20, 2015, report by Damian applied Technology regarding Updated Soil and Groundwater Screening Levels for the Golden State Warriors Arena;

4. Recirculation of the FSEIR was required due to new information regarding substantially more severe and/or significant impacts associated with the presence of asbestos on the Project site. (FSEIR, Vol. 5, p. 13-22 to 13-29.)

- July 26, 2015, letter from Soluri Meserve, p. 13;
- July 22, 2015, letter report by geotechnical engineer Martin Cline, GEG and Kurt Balasek regarding Hazardous Materials, pp. 4-6 (Exhibit B to July 26, 2015 Soluri Meserve letter);
- November 2, 2015, letter from Soluri Meserve, p. 12, Exhibit 3, p. 3.

5. The FSEIR fails to adequately respond in good faith to comments about the Hazards and



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Hazardous Materials analysis.

**M. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO URBAN DECAY IMPACTS IN OAKLAND.**

1. The SEIR fails to adequately analyze the potentially significant impact of urban decay in Oakland.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, p. Com-65;
- July 13, 2015, memo from Philip King, Ph.D at FSEIR, Vol. 6, pp. Com-82-86;
- November 2, 2015, letter from Soluri Meserve, p. 14;
- November 2, 2015, memo from Philip King, Ph.D.

2. The FSEIR fails to provide a good faith response to comments on the issue of urban decay.

- November 2, 2015, letter from Soluri Meserve, p. 14;
- November 2, 2015, memo from Philip King, Ph.D.

3. The purported analysis of urban decay contained in the FSEIR requires recirculation.

- November 2, 2015, letter from Soluri Meserve, p. 14.

**N. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO WIND AND SHADOW IMPACTS.**

1. The FSEIR fails to adequately analyze and disclose significant wind impacts to open space within the Project site.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-62-63;
- November 2, 2015, letter from Soluri Meserve, pp. 6-8.

2. The FSEIR fails to adequately respond in good faith to comments about the wind analysis.

- November 2, 2015, letter from Soluri Meserve, pp. 6-8.

3. Recirculation of the FSEIR is required because the FSEIR disclosed a new significant wind



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impact.

- November 2, 2015, letter from Soluri Meserve, p. 8.

**O. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO RECREATION IMPACTS.**

1. A fair argument exists that the Project will accelerate substantial deterioration of Bayfront Park thereby requiring analysis in the SEIR.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-60-61;
- November 2, 2015, letter from Soluri Meserve, pp. 8-9.

2. Even if consistent with the 1998 SEIR, the proposed Project represents a major revision that will result in a significantly more significant impact to deterioration of Bayfront Park than previously analyzed in 1998.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-60-61;
- November 2, 2015, letter from Soluri Meserve, pp. 8-9.

3. The FSEIR fails as an informational document regarding impacts to recreation because it improperly excludes analysis of environmental impacts associated with development of Bayfront Park.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-60-61;
- November 2, 2015, letter from Soluri Meserve, pp. 8-9.

4. Even if construction of Bayfront Park was previously analyzed at a programmatic level in the 1998 EIR, new information and changed circumstances results in a new and more severe significant impacts related to hazardous material exposure to residents of Bayfront Park than previously analyzed in 1998 and require analysis in a recirculated SEIR.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-60-61;
- November 2, 2015, letter from Soluri Meserve, pp. 8-9.
- The FSEIR failed to adequately respond in good faith to comments about the Project's impacts to recreational facilities.



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- November 2, 2015, letter from Soluri Meserve, pp. 8-9.

**P. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO UTILITIES IMPACTS.**

1. The FSEIR fails as an informational document regarding water supply infrastructure because it impermissibly defers analysis of the impacts associated with constructing water supply infrastructure.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-58-59.

2. The FSEIR may not rely on the 1998 SEIR regarding analysis of water supply infrastructure because new information and/or changed circumstances results in new and more severe significant impacts associated with constructing these facilities that were not previously disclosed.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-58-59.

3. New information and/or changed circumstances prohibit the SEIR from relying on the Water Supply Assessment prepared for another project in 2013.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-58-59.

4. The FSEIR fails as an informational document with respect to its discussion of stormwater treatment facilities and the Project's impact.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-59-60.

5. The FSEIR fails as an informational document by not including a detailed statement of the Project's energy demand in the DSEIR that was circulate for public review. The information contained in the FSEIR RTC constitutes new information that requires recirculation.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-61-62.

**Q. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO LAND USE IMPACTS.**

1. The Draft SEIR fails to address and the Final SEIR fails to adequately respond to comments regarding the inconsistency of the Warriors Arena Project with the primary and secondary uses encompassed in and allowed by the Mission Bay South Redevelopment Plan. The OCII findings on land use consistencies are not supported by substantial evidence.



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- July 26, 2015, DSEIR comment letter from Susan Brandt-Hawley, at FSEIR, Vol.6, p. Com-40-41, LU-2, PD-1.
- November 2, 2015, letter to OCII from Susan Brandt-Hawley re FSEIR/RTC.
- Testimony at November 3, 2015, OCII public hearing by Susan Brandt-Hawley.

2. The Draft SEIR fails to address and the Final SEIR fails to adequately respond to comments regarding the inconsistency of the Warriors Arena Project with land use policies established by the Mission Bay South Redevelopment Plan and the Design for Development.

- July 26, 2015, DSEIR comment letter from Susan Brandt-Hawley, at FSEIR, Vol.6, p. COM-41, PP-1.

3. The Draft SEIR fails to address and the Final SEIR fails to adequately respond to comments regarding the inadequacy of the EIR's analysis of changing the land use planned for the Mission Bay South area by changing the planned community character as a biotechnology and medical hub with the Event Center.

- July 26, 2015, DSEIR comment letter from Susan Brandt-Hawley, at FSEIR, Vol.6, p. COM-43, LU-1.

**R. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO CULTURAL RESOURCE IMPACTS.**

1. The Draft SEIR fails to adequately address and the Final SEIR fails to adequately respond to comments regarding the inadequacy of the EI's project specific analysis and mitigation of cultural resources, and failure to provide an updated investigation of resources as part of the environmental setting.

- July 26, 2015, DSEIR comment letter from Susan Brandt-Hawley, at FSEIR, Vol.6, p. COM-45-46, CULT-1.

**S. THE OCII'S CEQA FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS ARE PREMATURE AND UNSUPPORTED.**

1. The CEQA Findings adopted by the OCII are premature and unsupported, as explained in the Alliance's comments on the SEIR. The SEIR is defective and cannot be relied upon as an informational document with respect to the analysis and public disclosure of impacts and mitigation measures regarding transportation under CEQA.



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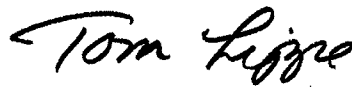
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2. Similarly, the Statement of Overriding Considerations is also premature and unsupported, because the OCII's CEQA findings adopted by are premature and unsupported, and without a legally adequate description of the nature and extent of the Project's environmental harm, the OCCI and the City cannot properly weigh whether the Project's benefits outweigh that harm.

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

**List of Exhibits**

- Exhibit 1: Resolution 69-2015, approved by the Commission on Community Investment and Infrastructure on November 3, 2015, certifying the Final Subsequent Environmental Impact Report for the Warriors Arena Project.
- Exhibit 2: Resolution 70-2015, approved by the Commission on Community Investment and Infrastructure on November 3, 2015, making CEQA Findings included in Resolution 70-2015.
- Exhibit 3: Memorandum entitled "Appeal Filing to the Board of Supervisors In Its Capacity as Governing Body of the Successor Agency."
- Exhibit 4: November 10, 2015, letter from Dan Smith to Tom Lippe re Emergency Access.
- Exhibit 5: November 10, 2015, letter from Dan Smith to Tom Lippe re Port Parking Facilities.
- Exhibit 6: November 13, 2015, letter from Dan Smith to Tom Lippe re King Street Electrical.

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# EXHIBIT 1



**COMMISSION ON COMMUNITY INVESTMENT AND INFRASTRUCTURE**

**RESOLUTION NO. 69-2015**

*Adopted November 3, 2015*

**CERTIFYING THE FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT  
FOR THE GOLDEN STATE WARRIORS EVENT CENTER AND MIXED-USE  
DEVELOPMENT ON BLOCKS 29-32 IN MISSION BAY SOUTH UNDER THE  
CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") AND THE CEQA  
GUIDELINES; MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA**

WHEREAS, The Commission on Community Investment and Infrastructure, ("Commission"), the successor agency to the San Francisco Redevelopment Agency ("Successor Agency"), takes the following certification action in compliance with the California Environmental Quality Act ("CEQA"), the California Public Resources Code Sections 21000 et seq., and the CEQA Guidelines, 14 Cal. Code Reg. Sections 15000 et seq. ("CEQA Guidelines") and acting in its capacity as lead agency under CEQA Section 21067; and,

WHEREAS, On September 17, 1998, the Commission of the former Redevelopment Agency of the City and County of San Francisco ("Redevelopment Commission") by Resolution No. 182-98, and the San Francisco Planning Commission, by Resolution No. 14696, together acting as co-lead agencies for conducting environmental review for the Redevelopment Plans for the Mission Bay North Redevelopment Project Area and the Mission Bay South Redevelopment Project Area (the "Plans"), the Mission Bay North Owner Participation Agreement ("North OPA") and the Mission Bay South Owner Participation Agreement ("South OPA"), and other permits, approvals and related and collateral actions (the "Mission Bay Project"), certified the Final Subsequent Environmental Impact Report ("Mission Bay FSEIR") (State Clearinghouse Number 97092068), as a program EIR for Mission Bay North and South pursuant to CEQA and CEQA Guidelines Sections 15168 (Program EIR) and 15180 (Redevelopment Plan EIR). The Mission Bay FSEIR document provided programmatic environmental review of the overall Mission Bay Redevelopment Plan (consisting of the approximately 300-acre Mission Bay North and South Redevelopment Plan Areas); and,

WHEREAS, On the same day, the Redevelopment Commission adopted Resolution No. 183-98, which adopted environmental findings, including a mitigation monitoring and reporting program ("MMRP") and a statement of overriding considerations, in connection with the approval of the Plans and other Mission Bay Project approvals, and adopted Resolution No. 190-98, approving the Redevelopment Plan for the Mission Bay South Redevelopment Project Area ("Plan") and Resolution No. 193-98 authorizing execution of the South OPA and related documents between the Redevelopment Agency and the Mission Bay Master Developer (originally Catellus Development Corporation and now FOCIL-MB, LLC, the successor to Catellus Development Corporation); and,



WHEREAS, On October 19, 1998, the Board of Supervisors adopted Motion No. 98-132 affirming certification of the Mission Bay FSEIR by the Planning Commission and the Redevelopment Agency, and Resolution No. 854-98 adopting environmental findings, including an MMRP and a statement of overriding considerations, for the Mission Bay Project. On November 2, 1998, the San Francisco Board of Supervisors ("Board of Supervisors"), by Ordinance No. 335-98, adopted the Plans; and,

WHEREAS, On February 1, 2012, state law dissolved the Former Redevelopment Agency and required the transfer of certain of its assets and obligations to the Successor Agency, and on June 27, 2012, state law clarified that successor agencies are separate public entities, Cal. Health & Safety Code §34170 et seq. ("Redevelopment Dissolution Law"); and,

WHEREAS, Redevelopment Dissolution Law required creation of an oversight board to the successor agency and provided that with approval from its oversight board and the State Department of Finance ("DOF"), a successor agency may continue to implement "enforceable obligations" such as existing contracts, bonds and leases, that were executed prior to the suspension of redevelopment agencies' activities. On January 24, 2014, DOF finally and conclusively determined that the Mission Bay North and South Owner Participation Agreements and Mission Bay Tax Increment Allocation Pledge Agreements are enforceable obligations pursuant to Health and Safety Code Section 34177.5(i); and,

WHEREAS, On October 2, 2012, the Board of Supervisors of the City, acting as the governing body of the Successor Agency, adopted Ordinance No. 215-12 (the "Implementing Ordinance"), which Implementing Ordinance was signed by the Mayor on October 4, 2012, and which, among other matters: (a) acknowledged and confirmed that the Successor Agency is a separate legal entity from the City, and (b) established this Commission and the Office of Community Investment and Infrastructure ("OCII") and delegated to the Commission the authority to (i) act in place of the Redevelopment Agency Commission to, among other matters, implement, modify, enforce and complete the Redevelopment Agency's enforceable obligations, (ii) approve all contracts and actions related to the assets transferred to or retained by the Successor Agency, including, without limitation, the authority to exercise land use, development, and design approval, consistent with applicable enforceable obligations, and (iii) take any action that the Redevelopment Dissolution Law requires or authorizes on behalf of the Successor Agency and any other action that this Commission deems appropriate, consistent with the Redevelopment Dissolution Law, to comply with such obligations; and,

WHEREAS, The Board of Supervisors' delegation to this Commission includes the authority to act as the lead agency that administers environmental review for private projects in Mission Bay North and South Redevelopment Plan Areas in compliance with the requirements of CEQA and the CEQA Guidelines, including CEQA Section 21067; and,



WHEREAS, The proposed project is the Golden State Warriors Event Center and Mixed-Use Development at Mission Bay South Blocks 29-32, with the MUNI UCSF/Mission Bay Station Variant and the Third Street Plaza variant, and related actions ("Event Center Project" or "Project"), as described in Chapter 3 of the Final Subsequent Environmental Impact Report ("FSEIR"). The Project Sponsor is GSW Arena LLC ("GSW"), an affiliate of the Golden State Warriors, LLC, which owns and operates the Golden State Warriors National Basketball Association team. GSW proposes to construct a multi-purpose event center and a variety of mixed uses, including office, retail, open space, and structured parking on an approximately 11-acre site on Blocks 29-32. The Project site is bounded by South Street on the north, Third Street on the west, 16th Street on the south, and by the future planned realigned Terry A. Francois Boulevard on the east; and

WHEREAS, In compliance with CEQA and the CEQA Guidelines, OCII determined that the Project required preparation of a Subsequent Environmental Impact Report and OCII provided public notice of that determination to governmental agencies and organizations and persons interested in the proposed project on November 19, 2014, initiating a 30-day public scoping period, which ended on December 19, 2014 and included a public scoping meeting on December 9, 2014.

WHEREAS, On June 5, 2015, OCII published and circulated the Draft Subsequent Environmental Impact Report (hereinafter "GSW DSEIR") to local, state, and federal agencies and to interested organizations and individuals. In addition, electronic copies of the GSW DSEIR were made available for public review on the OCII website and paper copies of the GSW DSEIR were made available for public review at OCII (1 South Van Ness Avenue, 5th Floor), the San Francisco Planning Department (1660 Mission Street, 1st Floor, Planning Information Counter), the San Francisco Main Library (100 Larkin Street) and San Francisco Library, Mission Bay Branch (960 4th Street).

WHEREAS, Notices of availability of the GSW DSEIR and of the date and time of the public hearing were posted near the project site and published in a newspaper of general circulation in San Francisco on June 5, 2015.

WHEREAS, On October 23, 2015, OCII published the Final Subsequent Environmental Impact Report ("FSEIR") for the Event Center Project consisting of the GSW DSEIR, the comments received during the review period, any additional information that became available after the publication of the GSW DSEIR, and the Responses to Comments document, all as required by law, copies of which are available through the Secretary of the Commission and at [www.gsweventcenter.com](http://www.gsweventcenter.com), and are incorporated herein by reference; and,

WHEREAS, The administrative record that contains the GSW DSEIR, the FSEIR and all documents related to, or relied on in the preparation thereof has been prepared by OCII in accordance with the Jobs and Economic Improvement through Environmental Leadership Act (AB 900). Governor Jerry Brown certified the proposed project as an environmental leadership development project under this Act on April 30, 2015, and on May 27, 2015, the Joint Legislative Budget



Committee concurred with this certification. Therefore, this project is eligible for streamlined judicial review. Project EIR files have been made available for review by the Commission and the public. These files are available for public review at OCII at 1 South Van Ness Avenue, 5th Floor, can be found at [www.gsweventcenter.com](http://www.gsweventcenter.com) and are part of the record before the Commission; now therefore be it,

RESOLVED, The Commission hereby certifies the Final Environmental Impact Report identified as OCII Case No. ER-2014-919-97 (also identified as Planning Department Case No. 2014.1441E and State Clearinghouse No. 2014112045), Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 (hereinafter "Project"), based upon the following findings:

1. The Commission has reviewed and considered the FSEIR and hereby does find that the contents of said report and the procedures through which the FSEIR was prepared, publicized, and reviewed comply with the provisions of CEQA and the CEQA Guidelines.
2. The Commission hereby does find that the FSEIR concerning Case No. ER-2014-919-97, Event Center and Mixed-Use Development at Mission Bay Blocks 29-32, reflects its independent judgment and analysis, is adequate, accurate and objective, and that the Comments and Responses document contains no significant revisions to the GSW DSEIR, and hereby does certify the completion of said FSEIR in compliance with CEQA and the CEQA Guidelines.
3. The Commission, in certifying the completion of said FSEIR, hereby does find that the Project:
  - A. Will have a significant and unavoidable project-specific effect on the environment in the following areas:
    - 1) On days without a SF Giants game at AT&T Park:
      - a) Increased traffic congestion and traffic impacts at seven intersections that would operate at LOS E or LOS F.
      - b) Increased traffic congestion and traffic impacts at one freeway ramp location that would operate at LOS E or LOS F.
      - c) A substantial increase in transit demand that could not be accommodated by regional transit capacity that would result in a significant impact to North Bay and South Bay regional transit service (Caltrain, Golden Gate Transit and Water Emergency Transportation Authority (WETA)).
    - 2) On days with overlapping evening events at the project site and at



AT&T Park:


- a) Increased traffic and traffic impacts at ten additional intersections that would operate at LOS E or LOS F.
  - b) Increased traffic and traffic impacts at three freeway ramp locations that would operate at LOS E or LOS F.
  - c) A substantial increase in transit demand that could not be accommodated by regional transit capacity would result in a significant impact to East Bay, North Bay and South Bay regional transit service (Bay Area Rapid Transit, Caltrain, Golden Gate transit and WETA).
- 3) Without implementation of the Muni Special Event Transit Service Plan:
- a) Increased traffic congestion and traffic impacts at nine intersections that would operate at LOS E or LOS F.
  - b) Increased traffic congestion and traffic impacts at three freeway ramp locations that would operate at LOS E or LOS F.
  - c) Transit service operation impacts on the Muni T Third light rail line and the 22 Fillmore bus route.
  - d) Capacity utilization standard exceedances for Caltrain, Golden Gate Transit and WETA.
- 4) Increased ambient noise levels due to increased vehicular traffic along local roadways in the project vicinity and to crowd noise associated with events at the event center.
- 5) Construction-related emissions of criteria air pollutants (reactive organic gases and nitrogen oxides) that would exceed applicable significance thresholds.
- 6) Long-term operational emissions of criteria air pollutants (ROG and NOx) that would exceed applicable significance thresholds in connection with project operations, from sources including new vehicle trips, maintenance and operation of standby diesel generators, boilers and area sources such as landscape equipment and use of consumer products.
- B. Will result in unavoidable cumulatively considerable contributions to the following significant cumulative effects on the environment:
- 1) During peak hours, cumulative increased traffic congestion and



traffic impacts at 16 intersections that would operate at LOS E or LOS F.

- 2) Cumulative increased traffic congestion and traffic impacts at three freeway ramp locations that would operate at LOS E or LOS F.
  - 3) Cumulative capacity utilization exceedances for BART, Caltrain, Golden Gate Transit and WETA.
  - 4) Increased cumulative roadway traffic noise in the project vicinity.
  - 5) Increased cumulative construction-related and operational emissions of criteria air pollutants that would exceed applicable significance thresholds.
  - 6) Cumulative wastewater flows that could exceed the capacity of the Mariposa Pump Station and associated force mains and conveyance piping, and construction impacts resulting from future construction of improvements to the Mariposa Pump Station and associated facilities to expand wastewater treatment capacity.
4. The Commission has reviewed and considered the information contained in the FSEIR prior to approving the Project.

I hereby certify that the foregoing resolution was adopted by the Commission at its meeting of November 3, 2015.



Commission Secretary







## EXHIBIT 2



**COMMISSION ON COMMUNITY INVESTMENT AND INFRASTRUCTURE**

**RESOLUTION NO. 70-2015**

*Adopted November 3, 2015*

**ADOPTING ENVIRONMENTAL REVIEW FINDINGS UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") AND THE CEQA GUIDELINES, INCLUDING THE ADOPTION OF A MITIGATION MONITORING AND REPORTING PROGRAM AND A STATEMENT OF OVERRIDING CONSIDERATION IN CONNECTION WITH THE DEVELOPMENT OF THE GOLDEN STATE WARRIORS EVENT CENTER AND MIXED-USE DEVELOPMENT AT MISSION BAY SOUTH BLOCKS 29-32; MISSION BAY SOUTH REDEVELOPMENT AREA**

WHEREAS, The Commission on Community Investment and Infrastructure, ("Commission"), the successor agency to the San Francisco Redevelopment Agency ("Successor Agency"), makes the following findings in compliance with the California Environmental Quality Act ("CEQA"), the California Public Resources Code Sections 21000 et seq., and the CEQA Guidelines, 14 Cal. Code Reg. Sections 15000 et seq. ("CEQA Guidelines") and acting in its capacity as lead agency under CEQA Section 21067; and,

WHEREAS, On September 17, 1998, the Commission of the former Redevelopment Agency of the City and County of San Francisco ("Redevelopment Commission") by Resolution No. 182-98, and the San Francisco Planning Commission, by Resolution No. 14696, together acting as co-lead agencies for conducting environmental review for the Redevelopment Plans for the Mission Bay North Redevelopment Project Area and the Mission Bay South Redevelopment Project Area (the "Plans"), the Mission Bay North Owner Participation Agreement ("North OPA") and the Mission Bay South Owner Participation Agreement ("South OPA"), and other permits, approvals and related and collateral actions (the "Mission Bay Project"), certified the Final Subsequent Environmental Impact Report ("Mission Bay FSEIR") (State Clearinghouse Number 97092068), as a program EIR for Mission Bay North and South pursuant to CEQA and CEQA Guidelines Sections 15168 (Program EIR) and 15180 (Redevelopment Plan EIR). The Mission Bay FSEIR document provided programmatic environmental review of the overall Mission Bay Redevelopment Plan (consisting of the approximately 300-acre Mission Bay North and South Redevelopment Plan Areas); and,

WHEREAS, On the same day, the Redevelopment Commission adopted Resolution No. 183-98, which adopted environmental findings, including a mitigation monitoring and reporting program ("MMRP") and a statement of overriding considerations, in connection with the approval of the Plans and other Mission Bay Project approvals, and adopted Resolution No. 190-98, approving the Redevelopment Plan for the Mission Bay South Redevelopment Project Area ("Plan") and Resolution No. 193-98 authorizing execution of the South OPA and related



documents between the Redevelopment Agency and the Mission Bay Master Developer (originally Catellus Development Corporation and now FOCIL-MB, LLC, the successor to Catellus Development Corporation); and,

WHEREAS, On October 19, 1998, the Board of Supervisors adopted Motion No. 98-132 affirming certification of the Mission Bay FSEIR by the Planning Commission and the Redevelopment Agency, and Resolution No. 854-98 adopting environmental findings, including an MMRP and a statement of overriding considerations, for the Mission Bay Project. On November 2, 1998, the San Francisco Board of Supervisors ("Board of Supervisors"), by Ordinance No. 335-98, adopted the Plans; and,

WHEREAS, On February 1, 2012, state law dissolved the Former Redevelopment Agency and required the transfer of certain of its assets and obligations to the Successor Agency, and on June 27, 2012, state law clarified that successor agencies are separate public entities, Cal. Health & Safety Code §34170 et seq. ("Redevelopment Dissolution Law"); and,

WHEREAS, Redevelopment Dissolution Law required creation of an oversight board to the successor agency and provided that with approval from its oversight board and the State Department of Finance ("DOF"), a successor agency may continue to implement "enforceable obligations" such as existing contracts, bonds and leases, that were executed prior to the suspension of redevelopment agencies' activities. On January 24, 2014, DOF finally and conclusively determined that the Mission Bay North and South OPAs and Mission Bay Tax Increment Allocation Pledge Agreements are enforceable obligations pursuant to Health and Safety Code Section 34177.5(i); and,

WHEREAS, On October 2, 2012, the Board of Supervisors of the City, acting as the governing body of the Successor Agency, adopted Ordinance No. 215-12 (the "Implementing Ordinance"), which Implementing Ordinance was signed by the Mayor on October 4, 2012, and which, among other matters: (a) acknowledged and confirmed that the Successor Agency is a separate legal entity from the City, and (b) established this Commission and the Office of Community Investment and Infrastructure ("OCII") and delegated to the Commission the authority to (i) act in place of the Redevelopment Agency Commission to, among other matters, implement, modify, enforce and complete the Redevelopment Agency's enforceable obligations, (ii) approve all contracts and actions related to the assets transferred to or retained by the Successor Agency, including, without limitation, the authority to exercise land use, development, and design approval, consistent with applicable enforceable obligations, and (iii) take any action that the Redevelopment Dissolution Law requires or authorizes on behalf of the Successor Agency and any other action that this Commission deems appropriate, consistent with the Redevelopment Dissolution Law, to comply with such obligations; and,

WHEREAS, The Board of Supervisors' delegation to this Commission includes the authority to act as the lead agency that administers environmental review for projects in Mission Bay North and South Redevelopment Plan Areas in compliance with the



requirements of CEQA and the CEQA Guidelines, including CEQA Section 21067; and,

WHEREAS, The proposed project is the Golden State Warriors Event Center and Mixed-Use Development at Mission Bay South Blocks 29-32, with the MUNI UCSF/Mission Bay Station Variant and the Third Street Plaza variant, and related actions (“Event Center Project” or “Project”), as described in Chapter 3 of the Final Subsequent Environmental Impact Report (“FSEIR”). The Project Sponsor is GSW Arena LLC (“GSW”), an affiliate of the Golden State Warriors, LLC, which owns and operates the Golden State Warriors National Basketball Association team. GSW proposes to construct a multi-purpose event center and a variety of mixed uses, including office, retail, open space, and structured parking on an approximately 11-acre site on Blocks 29-32. The Project site is bounded by South Street on the north, Third Street on the west, 16th Street on the south, and by the future planned realigned Terry A. Francois Boulevard on the east; and

WHEREAS, To implement the project, the Commission must take several actions including the approval of a new Major Phase, Basic Concept Design, and Schematic Design for Blocks 29-32; and amendments to the Mission Bay South Design for Development, Streetscape Plan and Signage Master Plan; and,

WHEREAS, The Executive Director also must take approval actions related to the project, including, without limitation, the approval of secondary use determination, approval of minor infrastructure plan amendments, and finding the subdivision map and irrevocable offer/easement vacations are consistent with the Mission Bay South Plan; and,

WHEREAS, OCII issued a Notice of Preparation, including an Initial Study on November 19, 2014; and,

WHEREAS, On June 5, 2015, OCII released for public review and comment the Draft Subsequent Environmental Impact Report for the Project, (OCII Case No. ER 2014-919-97, Planning Department Case No. 2014.1441E, State Clearinghouse No. 2014112045, the “GSW DSEIR”), which tiers from the Mission Bay FSEIR as provided by CEQA Guidelines Section 15168(c); and

WHEREAS, The Commission held a public hearing on the GSW DSEIR on June 30, 2015, and received written public comments until 5:00 pm on July 27, 2015, for a total of 52 days of public review; and

WHEREAS, On October 23, 2015, OCII published the FSEIR for the Event Center Project consisting of the GSW DSEIR, the comments received during the review period, any additional information that became available after the publication of the GSW DSEIR, and the Draft Summary of Comments and Responses, all as required by law, copies of which are available through the Secretary of the Commission and at [www.gsweventcenter](http://www.gsweventcenter), and are incorporated herein by reference; and,



WHEREAS, The administrative record that contains the GSW DSEIR, the FSEIR and all documents related to, or relied on in the preparation thereof has been prepared by OCII in accordance with the Jobs and Economic Improvement through Environmental Leadership Act (AB 900). Governor Jerry Brown certified the proposed project as an environmental leadership development project under this Act on April 30, 2015, and on May 27, 2015, the Joint Legislative Budget Committee concurred with this certification. Therefore, this project is eligible for streamlined judicial review. Project EIR files have been made available for review by the Commission and the public. These files are available for public review at OCII at 1 South Van Ness Avenue, 5th Floor, can be found at [www.gsweventcenter.com](http://www.gsweventcenter.com) and are part of the record before the Commission, and are incorporated in this resolution by this reference; and

WHEREAS, On November 3, 2015, the Commission reviewed and considered the FSEIR and, by Resolution No. 69-2015, which is incorporated in this resolution by this reference, found that the FSEIR was prepared, publicized and reviewed in compliance with CEQA and the CEQA Guidelines, reflects its independent judgment and analysis, is adequate, accurate and objective, and the Comments and Responses document contains no significant revisions to the DSEIR; and certified the FSEIR in compliance with CEQA; and,

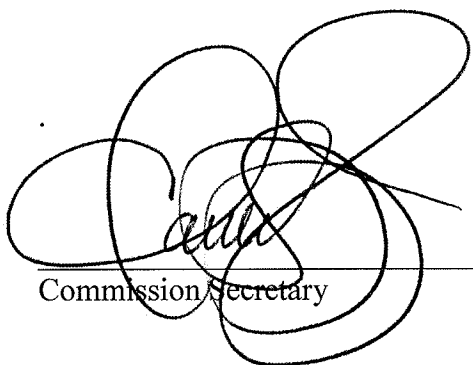
WHEREAS, OCII has prepared proposed Findings, as required by CEQA, regarding the alternatives, mitigation measures and significant environmental impacts analyzed in the FSEIR, overriding consideration for approving the Project, denoted as Exhibit A, and a proposed mitigation monitoring and reporting program denoted as Exhibit B, on file with the OCII Secretary and the San Francisco Planning Department under Case No. 2014.1441E, attached and incorporated in this resolution by this reference; now therefore be it

RESOLVED, That the Commission has reviewed and considered the FSEIR in relation to the Project actions associated with the Event Center Project that are before it and hereby adopts the Project CEQA Findings attached hereto as Exhibit A, including a statement of overriding considerations and the rejection of infeasible alternatives, and including as Exhibit B, the Mitigation Monitoring and Reporting Program; and,

RESOLVED, That the Executive Director is authorized to take any and all actions necessary to implement the Mitigation Monitoring and Reporting Program, attached hereto as Exhibit B, including, but not limited to, entering into agreements with the City and County of San Francisco to provide services assisting OCII with implementation duties.



I hereby certify that the foregoing resolution was adopted by the Commission at its meeting of November 3, 2015



Commission Secretary

Exhibit A: Environmental Review Findings

Exhibit B: Mitigation Monitoring and Review Program



## **EXHIBIT A**

### **Mission Bay Blocks 29-32 – Event Center and Mixed-Use Development**

#### **CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS: FINDINGS OF FACT, EVALUATION OF MITIGATION MEASURES AND ALTERNATIVES, AND STATEMENT OF OVERRIDING CONSIDERATIONS**

##### **COMMISSION ON THE COMMUNITY INVESTMENT AND INFRASTRUCTURE**

In determining to approve the Mission Bay Blocks 29-32 – Event Center and Mixed-Use Development Project (“Project”), the San Francisco Office of Community Investment and Infrastructure’s (“OCII”) Commission on Community Investment and Infrastructure (“OCII Commission”) makes and adopts the following findings of fact and decisions regarding mitigation measures and alternatives, and adopts the statement of overriding considerations, based on substantial evidence in the whole record of this proceeding and under the California Environmental Quality Act (“CEQA”), California Public Resources Code Sections 21000 et seq., particularly Sections 21081 and 21081.5, the Guidelines for Implementation of CEQA (“CEQA Guidelines”), 14 California Code of Regulations Sections 15000 et seq., particularly Sections 15091 through 15093, and Agency adopted CEQA Guidelines.

This document is organized as follows:

**Section I** provides a description of the Project proposed for adoption, the environmental review process for the Project, the approval actions to be taken and the location of records;

**Section II** identifies the impacts found not to be significant that do not require mitigation;

**Sections III and IIIA** identify potentially significant impacts that can be avoided or reduced to less-than-significant levels through mitigation and describe the disposition of the mitigation measures;

**Sections IV and IVA** identify significant impacts that cannot be avoided or reduced to less-than-significant levels and describe any applicable mitigation measures as well as the disposition of the mitigation measures;

**Section V** evaluates the different Project alternatives and the economic, legal, social, technological, and other considerations that support approval of the Project and the rejection of the alternatives, or elements thereof, analyzed; and

**Section VI** presents a statement of overriding considerations setting forth specific reasons in support of the OCII Commission’s actions and its rejection of the alternatives not incorporated into the Project.



The Mitigation Monitoring and Reporting Program (“MMRP”) for the mitigation measures that have been proposed for adoption is attached with these findings as **Exhibit B**. The MMRP is required by CEQA Section 21081.6, subdivision (a)(1), and CEQA Guidelines Sections 15091, subdivision (d), and 15097. **Exhibit B** provides a table setting forth each mitigation measure listed in the Final Subsequent Environmental Impact Report for the Project (“FSEIR”) that is required to reduce or avoid a significant adverse impact. **Exhibit B** also specifies the agency responsible for implementation of each measure. Where the Project Sponsor, GSW Arena LLC (“GSW” or “Project Sponsor”), an affiliate of Golden State Warriors, LLC, which owns and operates the Golden State Warriors National Basketball Association (“NBA”) team, is required to participate in the implementation of a mitigation measure, **Exhibit B** also states this requirement. **Exhibit B** also sets forth agency monitoring actions and a monitoring schedule for each mitigation measure. Where particular mitigation measures must be adopted and/or implemented by particular responsible agencies such as the City and County of San Francisco or one of its departments or commissions, the MMRP clearly identifies the agencies involved and the actions they must take. All of OCII’s specific obligations are also clear. The full text of each mitigation measure summarized or cited in these findings is set forth in **Exhibit B**. As explained further in the MMRP, in addition to listing mitigation measures, for the purposes of public disclosure and to assist in implementation and enforcement, the MMRP also lists “improvement measures,” “applicable regulations,” and the Project Transportation Management Plan (“TMP”).

These findings are based upon substantial evidence in the entire record before the OCII Commission. The references set forth in these findings to certain pages or sections of the Draft Subsequent Environmental Impact Report (“GSW DSEIR”) or the Responses to Comments document (“RTC”), which together constitute the FSEIR, are for ease of reference and are not intended to provide an exhaustive list of the evidence relied upon for these findings. A full explanation of the substantial evidence supporting these findings can be found in the FSEIR, and these findings hereby incorporate by reference the discussion and analysis in those documents supporting the FSEIR’s determinations regarding the Project’s impacts and mitigation measures designed to address those impacts. Reference to the GSW SEIR is intended as a general reference to information that may be found in either or both the GSW DSEIR or RTC.

## **I. APPROVAL OF THE PROJECT**

### **A. Project Description**

By this action, the OCII Commission adopts and takes action to implement substantially the Project identified in Chapter 3 of the FSEIR as modified by Chapter 14 of the FSEIR and the Muni University of California at San Francisco (“UCSF”)/Mission Bay Station Variant as described in Chapter 12 of the FSEIR with the option of the Third Street Plaza Variant. GSW proposes to construct a multi-purpose event center and a variety of mixed uses, including office, retail, open space and structured parking on an approximately 11-acre site on Blocks 29-32 within the Mission Bay South Redevelopment Plan Area of San Francisco.



The project site is bounded by South Street on the north, Third Street on the west, 16th Street on the south, and by the future planned realigned Terry A. Francois Boulevard on the east. The proposed event center would host the Golden State Warriors basketball team during the NBA season, and provide a year-round venue for a variety of other assembly and entertainment uses, including concerts, family shows, other sporting events, cultural events, conferences, and conventions.

The proposed roughly circular-shaped event center building would be located in the central-east portion of the site. The event center building would be approximately 135 feet at its roof peak, and would include multiple levels of varying elevations. The event center would be approximately 775,000 gross square feet ("gsf") and would be programmed with a capacity of 18,064 seats for basketball games, but could be reconfigured for concerts for a maximum capacity of about 18,500. The performance and seating areas could also be reconfigured in a cut-down configuration to create a smaller venue space.

Two office and retail buildings would be located on the west side of the project site. Specifically, one would be located at the northwest corner of site at Third and South Streets ("South Street office and retail building"). The other would be located at the southwest corner of the site at Third and 16th Streets ("16th Street office and retail building"). The South Street office and retail building would be approximately 345,000 gsf, and the 16th Street office and retail building would be approximately 300,000 gsf. Both buildings would be 11 stories (160 feet tall at building rooftop); each office and retail building would consist of a podium ground level plus 5 podium levels (90 feet tall), with a 5-story (70-foot tall) tower (with smaller floorplate than the podium) above. These buildings could serve a variety of office and/or research and development uses, with retail uses on the lower floor(s).

Additional retail uses would front on South Street and Terry A. Francois Boulevard, including an approximately 32,000 gsf 3-story, 41-foot high "food hall" located at the corner of Terry A. Francois Boulevard and South Street. An approximately 11,550 gsf 2-story, 38-foot high "gatehouse" building would be located mid-point along Third Street and would provide retail uses and house elevators/escalators connecting to parking facilities on lower floors.

Approximately 3.2 acres of open space would be designed within the site, including a proposed Third Street Plaza (elevated at approximately 8 to 12 feet above Third Street) on the west side of the project site between the event center and Third Street, and a proposed ground-level Southeast Plaza in the southeastern corner of the site.

Three levels of enclosed onsite parking (two below grade: Lower Parking Levels 1 and 2, and one at street level: Upper Parking Level) would be located below the office and retail buildings



and plaza areas. A total of 950 vehicle parking spaces are proposed on-site, including spaces for Fuel Efficient Vehicles (“FEV”) and carpool vehicles. The Project also includes use of 132 existing off-site parking spaces in the 450 South Street parking garage, primarily accessed from South Street directly north of the project site, to provide additional parking to serve the Project employees. The Project would also have 30 commercial loading spaces serving the Project uses, including 13 on-site below grade loading spaces and 17 on-street commercial loading spaces provided on South Street (8 spaces), Terry A. Francois Boulevard south of South Street (8 spaces), and 16th Street (1 space).

#### **1. Muni UCSF/Mission Bay Station Variant**

The Project incorporates the Muni UCSF/Mission Bay Station Variant, which is a minor variation of the Project in which, rather than extending the northbound platform only, the existing high-level northbound and southbound passenger platforms at the UCSF/Mission Bay light rail stop would be removed and replaced with a single high-level center platform to accommodate both northbound and southbound light rail service passengers. The new center platform would be located between the northbound and southbound light rail tracks in the general location of the existing UCSF/Mission Bay Station southbound platform. The platform would be approximately 320 feet long by 17 feet wide (the existing side platforms are about 160 feet long by 9 feet wide) and would allow for two two-car light rail trains to simultaneously board or alight passengers along the platform.

#### **2. Third Street Plaza Variant**

The Third Street Plaza variant is a minor variation of the Project. Under this variant, the area of the proposed Third Street Plaza would be modified to be consistent with the design standards of the UCSF view easement on the project site. Consequently, the “gatehouse” building, located mid-block along Third Street under the Project, would be relocated and the elevated main plaza would be replaced with an at-grade “event space” with no above-grade structural development. As a result, the variant would not require approval by UCSF for termination of their view easement that extends east from Third Street onto the project site. This variant may be implemented at the election of the developer. The Project impacts and mitigation discussed below would not be affected by this election.

### **B. Project Area**

#### **1. Mission Bay**

The approximate 300-acre Mission Bay Redevelopment Plan Area is located along San Francisco's central Bay waterfront, straddling Mission Creek Channel. In general, the Plan Area is bounded by Townsend Street to the north, Interstate 280 and Seventh Street to the west, Mariposa Street to the south, and San Francisco Bay to the east.



Before 1998, Mission Bay was characterized by low-intensity industrial development and vacant land. Since adoption of the North and South Plans in 1998, Mission Bay has undergone redevelopment into a mixture of residential, commercial (light industrial, research and development, labs and offices), retail, and educational/institutional uses and open space. As of 2014, 4,067 housing units (including 822 affordable units) of the planned 6,400 housing units within Mission Bay (roughly 64 percent) were complete, with another 900 (including 150 affordable units) under construction. Regarding office and laboratory space, approximately 1.7 million square feet of the 4.4 million square feet in the Mission Bay Plan Area (approximately 39 percent) was complete.

Approximately 82 percent of the previously-approved 2.65 million-square-foot UCSF North Campus has been developed, including six research buildings, an academic/office building, a campus community center, and a university housing development. The first phase of the UCSF Mission Bay Medical Center opened in early 2015. In addition, in November 2014, UCSF approved the Final UCSF 2014 Long Range Development Plan, which provides for additional planned development on the UCSF campus at Mission Bay through 2035. The City's new Public Safety Building at Third and Mission Rock Streets also became operational in April 2015. More than 15 acres of new non-UCSF parks and open space within Mission Bay have also been completed.

## **2. Project Site**

No buildings are currently located on the site. Portions of the site are unutilized, including a depressed area (measuring approximately 320 feet by 280 feet) created by an excavation and backfill associated with a prior environmental cleanup on the site. Other portions of the site are currently used for surface parking. Specifically, paved surface metered parking facilities are located in the west and north portions of the site. The existing surface parking facilities are accessed from 16<sup>th</sup> Street and South Street and include a total of 605 parking spaces. Chain link fencing is installed on the perimeter of the project site.

## **3. Surrounding Uses**

The UCSF Mission Bay campus is located west, northwest, southwest, and partially south of the project site. Fronting on Third Street directly west of the project site is an eight-story UCSF parking structure ("Third Street Garage"), and the UCSF Global Health and Clinical Sciences Building ("Mission Hall"). To the northwest of the project site fronting along Third Street is UCSF Hearst Tower, a 14-story building containing student housing; and to the north of that is the UCSF Helen Diller Family Cancer Research building. To the southwest of the project site fronting along Third Street is a complex containing the UCSF Energy Center, Betty Irene Moore Women's Hospital, Bakar Cancer Hospital, and Benioff Children's Hospital, which opened in February 2015. The UCSF Benioff Children's Hospital helipad, located atop the roof of the UCSF Ron Conway Gateway Medical Building at 1825 4th Street, also began operating in



February 2015. Directly south of the project site across 16th Street, between Third Street and Illinois Street, is a vacant lot recently acquired by UCSF (Blocks 33 and 34), which is planned for office space and possible outpatient clinical use development starting in 2016.

Directly south of the project site across 16th Street, between Illinois Street and Terry A. Francois Boulevard, is a recently-constructed six-story office building (409 Illinois Street) housing FibroGen Life Science and other biotech/high tech companies, and south of that is another recently-constructed six-story office building (499 Illinois Street) with biotech and UCSF clinical uses.

Directly north of the project site across and fronting on South Street are (from west to east) a vacant lot (recently acquired by Uber Technologies and Alexandria Real Estate Equities) and planned for development of office space, a six-story parking garage (450 South Street), and a six-story office building housing the Old Navy corporate headquarters.

Immediately east of the project site and west of Terry A. Francois Boulevard are City-owned parcels containing covered stockpiled materials. The planned Bayfront Park is located on Mission Bay Plan parcels P21 through P24, located northeast, east, and partially south of the project site. The north portion of the park (P21, located east of Terry A. Francois Boulevard, between Mission Bay Boulevard South and just south of Pierpoint Lane) is complete, and includes a landscaped parking lot and boat launch. The currently undeveloped central portion of the Bayfront Park is located east of the project site across Terry A. Francois Boulevard (on P22, from just south of Pierpoint Lane to just south of 16th Street). This portion of the park presently includes a paved trail (which constitutes a segment of the Bay Trail), surface parking lot, and unimproved open space. Construction of the south portion of Bayfront Park (on P23 and P24), located west of Terry A. Francois Boulevard between 16th Street and Mariposa Street, is currently underway in 2015 and scheduled for completion in 2016.

### **C. Project Objectives**

Consistent with Section 103 of the Mission Bay South Redevelopment Plan and as presented in the *Mission Bay Final Subsequent Environmental Impact Report* ("Mission Bay FSEIR"), certified in September 1998, the primary objectives of the Mission Bay Redevelopment Plan are:

- Eliminating blighting influences and the correction of environmental deficiencies in the Project Area, including, but not limited to, abnormally high vacancies, abandoned buildings, incompatible land uses, depreciated or stagnant property values, and inadequate or deteriorated public improvements, facilities, and utilities.
- Retaining and promoting, within the City and County of San Francisco, academic and research activities associated with the University of California San Francisco, which seeks to provide space for existing and new programs and consolidate academic and support units from many dispersed sites at a single major new site which can



accommodate the 2,650,000-gross sq. ft. program analyzed in the UCSF 1996 Long Range Development Plan (“LRDP”).

- Assembling of land into parcels suitable for modern, integrated development with improved pedestrian and vehicular circulation in the Project Area.
- Replanning, redesigning, and developing of undeveloped and underdeveloped areas which are improperly utilized.
- Providing flexibility in the development of the Project Area to respond readily and appropriately to market conditions.
- Providing opportunities for participation by owners in the redevelopment of their properties.
- Strengthening the community’s supply of housing by facilitating economically feasible, affordable housing through the installation of needed site improvements and expansion and improvement of the housing supply by the construction of approximately 6,090 market-rate units, including 1,700 units of very low-, low- and moderate-income housing.
- Strengthening the economic base of the Project Area and the community by strengthening retail and other commercial functions in the Project Area through the addition of approximately 1.5 million gross sq. ft. of retail space, a major hotel, and about 5,557,000 gross sq. ft. of mixed office, research and development, and light manufacturing uses.
- Facilitating emerging commercial-industrial sectors, including those expected to emerge or expand due to their proximity to the UCSF new site, such as research and development, biotechnical research, telecommunications, business service, multi-media services, and related light industrial through improvement of transportation access to commercial and industrial areas, improvement of safety within the Project Area, and the installation of needed site improvements to stimulate new commercial and industrial expansion, employment, and economic growth.
- Facilitating public transit opportunities to and within the Project Area to the extent feasible.
- Providing land in an amount of approximately 47 acres for a variety of open spaces.
- Achieving the objectives described above in the most expeditious manner feasible.

Consistent with the overall objectives of the Mission Bay Redevelopment Plan, GSW’s objectives for the proposed Event Center and Mixed-Use Development at Blocks 29-32 are to:

- Construct a state-of-the-art multi-purpose event center in San Francisco that meets National Basketball Association (NBA) requirements for sports facilities, can be used year-round for sporting events and entertainment and convention purposes with events



ranging in capacity from approximately 3,000-18,500, and expands opportunities for the City's tourist, hotel and convention business.

- Provide sufficient complementary mixed-use development, including office and retail uses, to create a lively local and regional visitor-serving destination that is active year-round, promotes visitor activity and interest during times when the event center is not in use, provides amenities to visitors of the event center as well as the surrounding neighborhood, and allows for a financially feasible project.
- Develop a project that meets high-quality urban design and high-level sustainability standards.
- Optimize public transit, pedestrian and bicycle access to the site by locating the project within walking distance to local and regional transit hubs, and adjacent to routes that provide safe and convenient access for pedestrians and bicycles.
- Provide adequate parking and vehicular access that meets NBA and project sponsor's reasonable needs for the event center and serves the needs of project visitors and employees, while encouraging the use of transit, bicycle, and other alternative modes of transportation.
- Provide the City with a world class performing arts venue of sufficient size to attract those events which currently bypass San Francisco due to lack of a world class 3,000-4,000 seat facility.
- Develop a project that promotes environmental sustainability, transportation efficiency, greenhouse gas reduction, stormwater management using green technology, and job creation consistent with the objectives of the California Jobs and Economic Improvement Through Environmental Leadership Act (AB 900),<sup>1</sup> as amended.

## **D. Environmental Review**

### **1. Preparation of the FSEIR**

As noted above, the EIR prepared for the Project is a Subsequent EIR ("SEIR"), tiered from the certified *Mission Bay Final Subsequent Environmental Impact Report* ("Mission Bay FSEIR"), which provided programmatic environmental review of the overall Mission Bay Redevelopment Plan (consisting of the Mission Bay North Redevelopment Plan and Mission Bay South Redevelopment Plan). The Mission Bay FSEIR evaluated the potential environmental effects of the overall development of the approximately 300-acre Mission Bay Plan Area.

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<sup>1</sup> AB 900, effective January 1, 2012, provides streamlining benefits under CEQA for privately-financed projects located on an infill site that has been determined to generate thousands of jobs and include state-of-the-art pollution reductions.



The Project at Blocks 29-32 is a subsequent activity allowed under, and consistent with, the Mission Bay South Redevelopment Plan. Consistent with the major redevelopment objectives in the Mission Bay South Redevelopment Plan, the Project would further diversify the economic base of the Mission Bay South Redevelopment Plan Area and add retail and entertainment amenities to the area. The Project would also provide Mission Bay employees and residents with additional opportunities to engage in recreational activities near their homes and jobs. The Project also promotes the Plan Bay Area's objective to create "neighborhoods where transit, jobs, schools, services and recreation are conveniently located near people's homes." (See Association of Bay Area Governments ("ABAG") / Metropolitan Transportation Commission ("MTC") Plan Bay Area, p. 42.)

On November 19, 2014, OCII, as lead agency responsible for administering the environmental review for private projects in the Mission Bay North and South Redevelopment Plan Area of San Francisco, issued a Notice of Preparation ("NOP") to notify and inform agencies and interested parties about the Project and to initiate the CEQA environmental review process for the Project. The NOP included an Initial Study, which described and analyzed environmental resource areas that would not be significantly affected by the Project and included mitigation measures to reduce certain impacts to less than significant levels. The Initial Study determined that the following topics were adequately analyzed in the Mission Bay FSEIR such that the Project would have no new significant impacts or no substantially more severe impacts previously found significant on these resources: Land Use; Population and Housing; Cultural and Paleontological Resources; Recreation; Air Quality (odors); Utilities and Services Systems (water supply and solid waste); Public Services (schools, parks, and other services); Biological Resources; Geology and Soils; Hydrology and Water Quality (groundwater, drainage, flooding, and inundation); Hazards and Hazardous Materials; Mineral and Energy Resources; and Agricultural and Forest Resources. As discussed further in the Initial Study and the RTC in the FSEIR, the Project as mitigated in the Initial Study will result in a less than significant impacts with respect to each of the above-listed topics.

During a 30-day public scoping period that ended on December 19, 2014, OCII accepted comments from agencies and interested parties identifying environmental issues that should be addressed in the SEIR. In addition, a public scoping meeting was held on December 9, 2014, to receive oral comments on the scope of the SEIR. OCII has considered the comments made by the public and agencies in preparing the SEIR on the Project.

The GSW DSEIR for the Project was published on June 5, 2015, and circulated to local, state, and federal agencies and to interested organizations and individuals for review from June 5, 2015, through July 27, 2015, for a total public comment period of 52 days. Paper copies of the GSW DSEIR were made available for public review at the following locations: (1) OCII, at 1 South Van Ness Avenue 5th Floor, San Francisco, California; (2) San Francisco Planning Department, 1660 Mission Street, 1st Floor, Planning Information Counter, San Francisco, California; (3) San Francisco Main Library, 100 Larkin Street, San Francisco, California; and



(4) San Francisco Library, Mission Bay Branch, 960 4th Street, San Francisco, California.<sup>2</sup> On June 5, 2015, the Planning Department also distributed notices of availability of the GSW DSEIR, published notification of its availability in a newspaper of general circulation in San Francisco, and posted notices at the project site.

During the public review period, OCII conducted a public hearing to receive oral comments on the GSW DSEIR. The public hearing was held before the OCII Commission on June 30, 2015, at San Francisco City Hall. A court reporter present at the public hearing transcribed the oral comments verbatim and prepared a written transcript. During the GSW DSEIR public review period, OCII received comments from approximately nine public agencies, 11 non-governmental organizations, and 155 individuals. See Chapter 11 of the FSEIR for a complete list of persons commenting on the GSW DSEIR.

The GSW DSEIR addressed environmental resource areas upon which the Project could result in potentially significant, physical environmental impacts as well as identified and analyzed alternatives to the Project. Specifically, the GSW DSEIR analyzed impacts to the following resources: Transportation and Circulation; Noise and Vibration; Air Quality; Greenhouse Gas Emissions; Wind and Shadow; Utilities and Service Systems (wastewater and stormwater); Public Services (police and fire services); and Hydrology and Water Quality (wastewater, stormwater, and flood hazards).

On October 23, 2015, OCII published the FSEIR, consisting of the GSW DSEIR, the comments received during the review period, any additional information that became available after the publication of the GSW DSEIR, and the RTC in fulfillment of requirements of CEQA and consistent with CEQA Guidelines Section 15132.

## **2. CEQA Streamlining**

In addition to tiering from the Mission Bay FSEIR and focusing the environmental analysis on potentially significant impacts of the Project as identified in the Initial Study (see, e.g., GSW DSEIR, pp. 2-2 to 2-8; RTC, pp. 13.3-22 to 13.3-31), the GSW SEIR utilizes CEQA streamlining provisions set forth in Public Resources Code section 21099.

Public Resources Code Section 21099(d), effective January 1, 2014, provides that, “aesthetics and parking impacts of a [1] residential, mixed- use residential, or employment center project on an [2] infill site [3] located within a transit priority area shall not be considered significant impacts on the environment.” The Project meets all three of the criteria set forth in Public

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<sup>2</sup> Electronic copies of the GSW SEIR and the administrative record could be accessed through the internet on the OCII website, Mission Bay webpage starting on June 5, 2015 at the following address: <http://www.sfocii.org/index.aspx?page=61>, and on the Planning Department website, Environmental Impacts and Negative Declarations webpage at the following address: <http://www.sf-planning.org/index.aspx?page=1828>.



Resources Code Section 21099(d). The Project qualifies as an employment center project because the project site is designated Commercial Industrial / Retail within the Mission Bay South Redevelopment Plan and the Project includes a floor area ratio that exceeds 0.75. (Pub. Resources Code, § 21099, subd. (a)(1).) The project site constitutes an infill site because, among other reasons, the site is located in an urban area within the City of San Francisco and was previously developed with industrial and commercial uses. (Pub. Resources Code, § 21099, subd. (a)(2).) Finally, the Project is located within a transit priority area because, among other reasons, the project site is located within one-half mile of several transit routes, including San Francisco Municipal Transportation Agency (SFMTA) Muni Metro stops connecting two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. (Pub. Resources Code, §§ 21064.3, 21099, subd. (a)(7).) Thus, CEQA does not require the GSW SEIR to consider either aesthetics or the adequacy of parking in determining the significance of Project impacts.

Public Resources Code Section 21099(d) states that a Lead Agency maintains the authority to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers. Consistent with OCII's normal procedures, the design review process considers relevant design and aesthetic issues. Furthermore, for informational purposes, Chapter 3 of the GSW DSEIR, Project Description, includes graphic depictions of the Project and Chapter 5, Section 5.2, of the GSW DSEIR, Transportation and Circulation, presents a parking demand analysis and considers any secondary physical impacts associated with constrained supply (e.g., queuing by drivers waiting for scarce onsite parking spaces that affects the public right-of-way) as applicable in the transportation analysis.

### **3. Recirculation**

Under section 15088.5 of the CEQA Guidelines, recirculation of an EIR is required when "significant new information" is added to the EIR after public notice is given of the availability of the Draft EIR for public review but prior to certification of the Final EIR. The term "information" can include changes in the project or environmental setting, as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:

- (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.



- (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.
- (4) The DEIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

(CEQA Guidelines, § 15088.5, subd. (a).)

Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR. The above standard is “not intend[ed] to promote endless rounds of revision and recirculation of EIRs.” (*Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1132 (*Laurel Heights*)). “Recirculation was intended to be an exception, rather than the general rule.” (*Ibid.*)

OCII recognizes that minor changes have been made to the Project and additional evidence has been developed after publication of the GSW DSEIR. Specifically, as discussed in the RTC, after publication of the GSW DSEIR, the Project Sponsor proposed Project refinements that are described in Chapter 12 of the FSEIR. The Project refinements constitute minor Project changes (generator relocation, project design to reduce wind hazards, transportation improvements, revised construction tower crane plan, modification of certain construction techniques, and modification of sources of electricity during construction). As described in the FSEIR, these refinements would result in either no changes to the impact conclusions or a reduction in the severity of the impact presented in the GSW DSEIR.

Chapter 12 of the FSEIR also includes an additional Project variant. Like the Project refinements, the variant constitutes a minor change to the Project. The variant would generally have the same impacts as those identified for the Project in the GSW DSEIR and all impact significance determinations would be the same.

Finally, the FSEIR includes supplemental data and information that was developed after publication of the GSW DSEIR to further support the information presented in the GSW DSEIR. None of this supplemental information affects the conclusions or results in substantive changes to the information presented in the GSW DSEIR or to the significance of impacts as disclosed in the GSW DSEIR. The OCII Commission finds that none of the changes and revisions in the FSEIR substantially affects the analysis or conclusions presented in the GSW DSEIR; therefore, recirculation of the GSW DSEIR for additional public comments is not required.



CEQA case law emphasizes that “[t]he CEQA reporting process is not designed to freeze the ultimate proposal in the precise mold of the initial project; indeed, new and unforeseen insights may emerge during investigation, evoking revision of the original proposal.” (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 736-737; see also *River Valley Preservation Project v. Metropolitan Transit Development Bd.* (1995) 37 Cal.App.4th 154, 168, fn. 11.) “CEQA compels an interactive process of assessment of environmental impacts and responsive project modification which must be genuine. It must be open to the public, premised upon a full and meaningful disclosure of the scope, purposes, and effect of a consistently described project, with flexibility to respond to unforeseen insights that emerge from the process.’ [Citation.] In short, a project must be open for public discussion and subject to agency modification during the CEQA process.” (*Concerned Citizens of Costa Mesa, Inc. v. 33rd Dist. Agricultural Assn.* (1986) 42 Cal.3d 929, 936.) Similarly, additional studies included in a Final EIR that result in minor modifications or additions to analysis concerning significant impacts disclosed in a Draft EIR does not constitute “significant new information” requiring recirculation of an EIR. (See *Mount Shasta Bioregional Ecology Center v. County of Siskiyou* (2012) 210 Cal.App.4th 184, 221 [incorporation of technical studies in a Final EIR disclosing additional locations affected by a significant noise impact identified in the Draft EIR did not require recirculation].) Here, the changes made to the Project and the additional evidence relied on in the FSEIR are exactly the kind of information and revisions that the case law recognizes as legitimate and proper and does not trigger the need to recirculate the GSW DSEIR. In fact, OCII requested many of the Project refinements and the performance of additional analysis based on comments received from the Mission Bay Citizens Advisory Committee, the UCSF Chancellor’s Office, neighborhood organizations in the vicinity of the Event Center, and other community stakeholders.

#### **E. AB 900**

The Project Sponsor applied to the Governor of California for certification of the Project as a leadership project under AB 900, and the application was subject to public review from March 2, 2015, through April 1, 2015. On March 21, 2015, the California Air Resources Board (CARB) issued Executive Order G-15-022, determining that the Project would not result in any net additional greenhouse gases (GHGs) for purposes of certification under AB 900. On April 30, 2015, Governor Edmund G. Brown Jr. certified the Project as an eligible project under AB 900, and the Governor’s Office of Planning and Research (OPR) forwarded the Governor’s determination to the Joint Legislative Budget Committee. OPR prepared an independent evaluation of the transportation efficiency analysis. On May 22, 2015, the State Legislative Analyst’s Office indicated that the Project aligns with the intent of AB 900, and recommended to the Joint Legislative Budget Committee that it concur with the Governor’s determination. On May 27, 2015, the Joint Legislative Budget Committee concurred with the Governor’s determination that the Project is an eligible project under AB 900.



The process of certifying a project as an environmental leadership project pursuant to AB 900, including quantification of GHG emissions, is a separate process from the preparation of an EIR under CEQA, with separate and distinct review and approval requirements. The Governor's findings and certification of the Project as an environmental leadership development project are final and are not subject to judicial review. (Pub. Resources Code, § 21184, subd. (b)(1).) Because the Project is an environmental leadership development project, OCII has complied with procedures set forth in Public Resources sections 21186 and 21187 as part of the administrative review process for the Project. In the event of litigation challenging approval of the Project by the OCII Commission (or by the Board of Supervisors after an administrative appeal), the environmental leadership development project is subject to Rules of Court specifically designed to ensure the actions or proceedings challenging the adequacy of an EIR adopted for an environmental leadership development project or the granting of project approvals for such a project, including any potential appeals therefrom, are resolved, within 270 days of certification of the record of proceedings. (Pub. Resources Code, § 21185.) The same is true of any state court litigation over any other project approvals needed by other state, regional, or local agencies for the Project. (*Id.*)

#### **F. Consistency with the Mission Bay South Redevelopment Plan**

The Mission Bay South Redevelopment Plan designates land uses for specific parcels within the Plan Area. Proposed land uses to be permitted for Blocks 29-32 are designated as Commercial Industrial/Retail, and the plan provides for either principal or secondary uses at this site. Primary uses are permitted in accordance with the Plan's provisions, and secondary uses are permitted, provided that such use generally conforms with redevelopment objectives and planning and design controls established pursuant to this Plan. As the GSW DSEIR explains on page 4-2, "[o]n September 17, 1998, by Resolution No. 14702, the Planning Commission determined that the Mission Bay South Redevelopment Plan provides for a type, intensity, and location of development that is consistent with the overall goals, objectives, and policies of the General Plan. Therefore, the project's consistency with the Mission Bay South Redevelopment Plan ... would ensure that the project would not obviously or substantially conflict with General Plan goals, policies, or objectives."

A project is consistent with a general plan "if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment." (*Corona-Norco Unified School Dist. v. City of Corona* (1993) 17 Cal.App.4th 985, 994.) A 100% match with each policy is not required. (*Clover Valley Foundation v. City of Rocklin* (2011) 197 Cal.App.4th 200, 238.) Rather, a lead agency must consider whether a project is "compatible with 'the objectives, policies, general land uses and programs specified in the general plan.'" (*Ibid.*) A project will only be considered inconsistent if it "conflicts with a general plan policy that is fundamental, mandatory, and clear." (*Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 782.)



The Mission Bay South Redevelopment Plan identifies the following principal uses under the Commercial Industrial/Retail land use designation applicable to Blocks 29-32: manufacturing; institutions; retail sales and services; arts activities; art spaces; office use; home and business services; animal care; wholesaling; automotive; and other uses (e.g., greenhouse, nursery, open recreation and activity areas, parking and certain telecommunications-related facilities). The following secondary uses are also identified: institutions, assembly and entertainment, and other uses (including public structures or uses of a nonindustrial character).

Additionally, the Mission Bay South Redevelopment Plan describes general controls and limitations for development, and sets limits on leasable square footages of various uses within defined zones within the Plan Area, including the project site. The Plan sets a maximum floor area ratio of 2.9 to 1 for the commercial industrial/ retail uses at the project site, and the maximum building height within the entire Plan Area is 160 feet. The plan further indicates that within the limits, restrictions, and controls established in the plan, OCII is authorized to establish height limits of buildings, land coverage, density, setback requirements, design and sign criteria, traffic circulation and access standards and other development and design controls in the Design for Development.

The OCII Commission finds that the Project does not conflict with any land use plans or policies that provide guidance for development proposed within the region, including the Mission Bay South Redevelopment Plan, the San Francisco General Plan, San Francisco Planning Code, Plan Bay Area, the 2010 Clean Air Plan, San Francisco Bay Plan, and the San Francisco Basin Plan.

#### **G. Approval Actions**

The OCII Commission, as the lead agency under CEQA for the Project, is responsible for certifying the FSEIR. Thereafter, local agencies and possibly one state agency will rely on the FSEIR for the approval actions listed below and in doing so will adopt CEQA findings, including a statement of overriding considerations and a mitigation monitoring and reporting program. With the exception of OCII and the OCII Commission, which together make up the Lead Agency, all other agencies approving the Project, including the City and County of San Francisco and its departments and commissions, will be acting as Responsible Agencies.<sup>3</sup>

The following approvals or permits are required for the Project to be implemented:

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<sup>3</sup> By Resolution 33-2015, to increase public participation in the CEQA process, the OCII Commission voluntarily requested that the Board of Supervisors consider any appeal filed of the OCII's certification of the GSW FSEIR. If such an appeal were filed, the Board would affirm or reverse that certification. If reversed, the Board would adopt findings and remand the FSEIR to the OCII for further action consistent with its findings. However, consistent with Ordinance No. 215-12, by which the Board of Supervisors, acting as the Successor Agency to the former San Francisco Redevelopment Agency, delegated final land use decisionmaking authority over the project area to the OCII Commission, the Board of Supervisors has no decision-making authority over the project except in its capacity as a responsible agency under CEQA.



- Approval by the OCII Executive Director of secondary use findings of consistency for the proposed event center
- Approval by the OCII Commission of a new Major Phase for Blocks 29-32, and related conditions of approval
- Approval by the OCII Commission of Combined Basic Concept and Schematic Designs (Schematic Designs) for the Project
- Approval by the OCII Commission (and any other City Departments as required under the Mission Bay South Plan, OPA, Interagency Corporation Agreement, and associated documents) of: amendments to the Mission Bay South Design for Development, and modifications to the Mission Bay South Signage Master Plan and Mission Bay South Streetscape Plan, and conditions of approval.
- Approval by Mayor, Department of Public Works Executive Director, and OCII Executive Director of any non-material changes to Mission Bay South Infrastructure Plan
- Entertainment Commission approval of applicable entertainment permits, including, but not limited to, a Place of Entertainment permit
- Planning Commission approval of office building Schematic Designs related to Proposition M allocation
- Port of San Francisco staff approval of changes to waterfront infrastructure, including roadway striping
- San Francisco MTA/Department of Public Works approval for reconfiguration of adjacent streets
- San Francisco Department of Public Works and Board of Supervisors approval of subdivision maps, including street vacations, acceptance of public improvements and right-of-way dedications, and encroachment permits to the extent required
- Termination or relocation of existing City-reserved easements by applicable City departments, including the San Francisco Public Utilities Commission, to the extent required
- San Francisco Department of Building Inspection approval of a building/site permit, and related approvals from other City departments including the San Francisco Public Utilities Commission (SFPUC) for utility connections
- Approval from the University of California (UCSF) to terminate and/or modify a view easement extending 100 feet within the project site along the Campus Way axis or consent to implementation of the Project if it encroaches into the view easement area (not required under the Third Street Plaza Project Variant)



## H. Contents and Location of Record

The record upon which all findings and determinations related to the Project consists of those items listed in Public Resources Code section 21167.6, subdivision (e), including but not limited to the following documents, which are incorporated by reference and made part of the record supporting these findings:

- The NOP and all other public notices issued by OCII in conjunction with the Project.
- The GSW DSEIR and all documents referenced in or relied upon by the FSEIR. (The references in these findings to the FSEIR include the GSW DSEIR, the RTC, and the Initial Study.)
- The MMRP for the Project.
- All findings and resolutions adopted by OCII in connection with the Project, and all documents cited or referred to therein.
- All information including written evidence and testimony provided by City and OCII staff to the OCII Commission relating to the SEIR, the Project, and the alternatives set forth in the GSW SEIR or these CEQA findings.
- All information provided by the public, including the proceedings of the public hearings on the adequacy of the GSW DSEIR and the transcripts of the hearings, including the OCII Commission hearing on June 30, 2015, and written correspondence received by OCII staff during the public comment period of the GSW DSEIR.
- All information and documents included on the website prepared for the Project pursuant AB 900, which are available at the following link: <http://www.gsweventcenter.com/>

The OCII Commission has relied on all of the documents listed above in reaching its decision on the Project, even if not every document was formally presented to the Commission. Without exception, any documents set forth above not found in the Project files fall into one of two categories. In the first category, many of the documents reflect prior planning or legislative decisions of which the OCII Commission was familiar with when approving the Project. (See *City of Santa Cruz v. Local Agency Formation Com.* (1978) 76 Cal.App.3d 381, 391-392; *Dominey v. Dept. of Personnel Admin.* (1988) 205 Cal.App.3d 729, 738, fn. 6.) In the second category, documents that influenced the expert advice provided to OCII staff or consultants, who then provided advice to the OCII Commission as final decisionmakers, form part of the underlying factual basis for the OCII Commission's decisions relating to approval of the Project and properly constitute part of the administrative record. (See Pub. Resources Code, § 21167.6, subd. (e)(10); *Browning-Ferris Industries v. City Council of City of San Jose* (1986) 181



Cal.App.3d 852, 866; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 153, 155.)

The public hearing transcript, a copy of all letters regarding the GSW DSEIR received during the public review period, the administrative record, and background documentation for the FSEIR, as well as additional materials concerning approval of the Project and adoption of these findings are contained in the Project files. Project files are available by contacting Claudia Guerra, OCII Commission Secretary, the Custodian of Records for OCII, at the Office of Community Investment and Infrastructure, 1 South Van Ness Avenue, 5th Floor, San Francisco, CA 94103. All files have been available to the OCII Commission and the public for review in considering these findings and whether to approve the Project.

## **I. Findings About Significant Environmental Impacts and Mitigation Measures**

The following Sections – II, III and IV – set forth the OCII Commission’s findings about the FSEIR’s determinations regarding significant environmental impacts and the mitigation measures proposed to address them. These findings provide the written analysis and conclusions of the OCII Commission regarding the environmental impacts of the Project and the mitigation measures included as part of the FSEIR and adopted by the OCII Commission as part of the Project. To avoid duplication and redundancy, and because the OCII Commission agrees with, and hereby adopts, the conclusions in the FSEIR, these findings will not repeat the analysis and conclusions in the FSEIR, but instead incorporates them by reference in these findings and relies upon them as substantial evidence supporting these findings.

In making these findings, the OCII Commission has considered the opinions of staff and experts, other agencies, and members of the public. The OCII Commission finds that the determination of significance thresholds is generally a decision requiring judgment within the discretion of OCII; the significance thresholds used in the FSEIR are supported by substantial evidence in the record, including the expert opinion of the FSEIR preparers and OCII staff; and the significance thresholds used in the FSEIR provide reasonable and appropriate means of assessing the significance of the adverse environmental effects of the Project. Thus, although as a legal matter, the OCII Commission is not bound by the significance determinations in the FSEIR (see Pub. Resources Code, § 21082.2, subd. (e)), the OCII Commission finds them persuasive and hereby adopts them as its own.

These findings do not attempt to describe the full analysis of each environmental impact contained in the FSEIR. Instead, a full explanation of these environmental findings and conclusions can be found in the FSEIR, and these findings hereby incorporate by reference the discussion and analysis in the FSEIR supporting the FSEIR’s determination regarding the Project’s impacts and mitigation measures designed to address those impacts. In making these findings, the OCII Commission ratifies, adopts and incorporates in these findings, the determinations and conclusions of the FSEIR relating to environmental impacts and mitigation



measures, except to the extent any such determinations and conclusions are specifically and expressly modified by these findings.

As set forth below, the OCII Commission adopts and incorporates all of the mitigation measures within its authority and jurisdiction as lead agency, as set forth in the FSEIR and presented in the attached MMRP (**Exhibit B**), in order to substantially lessen or avoid the potentially significant and significant impacts of the Project. The MMRP will remain available for public review during the compliance period. In adopting mitigation measures from the FSEIR, the OCII Commission intends to adopt each of the mitigation measures proposed in the FSEIR for the Project for adoption by OCII. The OCII Commission also intends that the MMRP should include each and every mitigation measure included in the FSEIR, including those assigned to responsible agencies. Accordingly, in the event a mitigation measure recommended in the FSEIR has inadvertently been omitted in these findings or the MMRP, any such mitigation measure is hereby adopted and/or incorporated in the findings below by reference. In addition, in the event the language describing a mitigation measure set forth in these findings or the MMRP fails to accurately reflect the mitigation measures in the FSEIR due to a clerical error, the language of the policies and implementation measures as set forth in the FSEIR shall control. The impact numbers and mitigation measure numbers used in these findings reflect the impact and mitigation measure numbers used in the FSEIR.

In the section II, III and IV below, the same statutory findings are made for a category of environmental impacts and mitigation measures. Rather than repeat the identical finding dozens of times to address each and every significant effect and mitigation measure, the initial finding obviates the need for such repetition because in no instance is the OCII Commission rejecting the conclusions of the FSEIR or the mitigation measures recommended in the FSEIR for the Project.

## **II. IMPACTS FOUND TO BE LESS THAN SIGNIFICANT AND THUS REQUIRING NO MITIGATION**

Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15126.4, subd. (a)(3), 15091.) Based on substantial evidence in the whole record of this proceeding, the OCII Commission finds that implementation of the Project will not result in any significant impacts in the following areas and that these impact areas, therefore, do not require mitigation. In some instances, the Project would have no impact in a particular area; these instances are denoted below by "NI" for no impact.

### **A. Land Use and Land Use Planning**

- 1. Impact LU-1, Impacts on an established community from physical division of the area.** (GSW DSEIR Appendix NOP-IS p. 29; RTC, Response LU-1; Response PP-1; Response PD-1.)



2. **Impact LU-2**, Consistency with plans, policies and regulations. (GSW DSEIR Appendix NOP-IS p. 30; RTC, Response LU-1; Response LU-2; Response PP-1; Response PD-1.)

3. **Impact LU-3**, Effects on existing land use character. (GSW DSEIR Appendix NOP-IS p. 32; RTC, Response LU-1; Response PP-1; Response PD-1.)

4. **Impact C-LU-1**, Significant cumulative impacts to land use (GSW DSEIR Appendix NOP-IS p. 34; RTC, Response LU-1; Response PD-1.)

## **B. Population and Housing**

1. **Impact PH-1**, Effects of construction activities on population growth. (GSW DSEIR Appendix NOP-IS p. 39.)

2. **Impact PH-2**, Effects of construction on existing housing units and housing demand. (GSW DSEIR Appendix NOP-IS p. 40.)

3. **Impact PH-3**, Effects of construction on existing housing units or residents from displacement. (GSW DSEIR Appendix NOP-IS p. 40.)

4. **Impact PH-4**, Effects of operations on population growth. (GSW DSEIR Appendix NOP-IS p. 41; RTC, Response PD-4.)

5. **Impact PH-5**, Effects of operations on housing displacement or housing demand (GSW DSEIR Appendix NOP-IS p. 43.)

6. **Impact PH-6 (NI)**, Effects of operations on displacement of people (GSW DSEIR Appendix NOP-IS p. 43.)

7. **Impact C-PH-1**, Significant cumulative effects on population and housing (GSW DSEIR Appendix NOP-IS p. 43.)

## **C. Cultural and Paleontological Resources**

1. **Impact CP-1**, Substantial adverse change to historical resources. (GSW DSEIR Appendix NOP-IS p. 47.)

2. **Impact CP-3**, Destruction of paleontological or geologic features (GSW DSEIR Appendix NOP-IS p. 55.)

3. **Impact CP-4**, Disturbance of human remains (GSW DSEIR Appendix NOP-IS p. 56.)

## **D. Transportation and Circulation**



1. **Impact TR-1**, Construction-related ground transportation impacts (GSW DSEIR p. 5.2-111; RTC, Response TR-10; Response TR-11.)
2. **Impact TR-4**, Effects on transit demand without SF Giants game. (GSW DSEIR p. 5.2-135; RTC, Response TR-2; Response TR-5; Response TR-12.)
3. **Impact TR-7**, Effects on bicycle safety and accessibility without SF Giants game. (GSW DSEIR p. 5.2-157; RTC, Response TR-2; Response TR-7.)
4. **Impact TR-8**, Effects of loading on hazardous conditions or delays for traffic, transit, bikes or pedestrians. (GSW DSEIR p. 5.2-161; RTC, Response TR-2; Response TR-8.)
5. **Impact TR-9b**, Effects of construction lighting on UCSF helipad flight operations. (GSW DSEIR p. 5.2-266.)
6. **Impact TR-9c**, Obstruction of UCSF helipad airspace surfaces. (GSW DSEIR p. 5.2-267.)
7. **Impact TR-10**, Effects on emergency vehicle access without SF Giants game. (GSW DSEIR p. 5.2-166; RTC, Response TR-9; Response TR-11.)
8. **Impact TR-16**, Effects on bicycle safety and accessibility with overlapping SF Giants evening game. (GSW DSEIR p. 5.2-189; RTC, Response TR-2.)
9. **Impact TR-17**, Effects on emergency vehicle access with overlapping SF Giants evening game. (GSW DSEIR p. 5.2-189; RTC, Response TR-2.)
10. **Impact TR-23**, Effects on bicycle safety and accessibility without Muni Special Event Transit Service Plan. (GSW DSEIR p. 5.2-206; RTC, Response TR-2.)
11. **Impact TR-24**, Effects on loading without Muni Special Event Transit Service Plan. (GSW DSEIR p. 5.2-207; RTC, Response TR-2.)
12. **Impact TR-25**, Effects on emergency vehicle access without Muni Special Event Transit Service Plan. (GSW DSEIR p. 5.2-208; RTC, Response TR-2.)
13. **Impact C-TR-1**, Cumulative construction-related ground transportation impacts. (GSW DSEIR p. 5.2-210; RTC, Response TR-10; Response TR-11.)
14. **Impact C-TR-7**, Cumulative adverse bicycle impacts. (GSW DSEIR p. 5.2-230; RTC, Response TR-2.)
15. **Impact C-TR-8**, Cumulative adverse loading impacts. (GSW DSEIR p. 5.2-230; RTC, Response TR-2.)



16. **Impact C-TR-10**, Cumulative adverse emergency vehicle access impacts. (GSW DSEIR p. 5.2-230; RTC, Response TR-2.)

**E. Noise and Vibration**

1. **Impact NO-1**, Effects of construction on ambient noise levels in the Project vicinity above levels existing without the Project. (GSW DSEIR p. 5.3-20; FSEIR, Chapter 12, Sections 12.2.3 and 12.3.2; Response NOI-2; Response NOI-3; Response NOI-4.)

2. **Impact NO-2**, Construction noise in excess of standards in general plan, noise ordinance of other applicable standards. (GSW DSEIR p. 5.3-24; RTC, Response NOI-2; Response NOI-4.)

3. **Impact NO-3**, Effects of construction on groundborne vibration levels. (GSW DSEIR p. 5.3-24; FSEIR, Chapter 12, Section 12.3.2; Response NOI-3b; Response NOI-5.)

4. **Impact C-NO-3**, Noise impacts of UCSF helipad operations on Project occupants (GSW DSEIR p. 5.3-44.)

**F. Air Quality**

1. **Impact AQ 3: Toxic Air Contaminants from Construction Activities**. (GSW DSEIR p. 5.4-43; FSEIR, Chapter 12, Sections 12.2.1, 12.3.2; Response AQ-1; Response AQ-4; Response AQ-5; Response AQ-6.)

2. **Impact C-AQ-2: Contribution to Cumulative Toxic Air Contamination and Diesel Particulate Matter Emissions** (GSW DSEIR 5.4-56; FSEIR, Chapter 12, Sections 12.2.1, 12.3.2; Response AQ-1; Response AQ-5.)

**G. Greenhouse Gas Emissions**

1. **Impact C-GG-1**, Effect of greenhouse gas emissions or conflict with existing greenhouse gas regulations (GSW DSEIR p. 5.5-10; RTC, Response AB-1; Response GHG-2.)

**H. Wind and Shadow**

1. **Impact C-WS-1**, Cumulative impacts of development on wind in a manner that would substantially affect off-site public areas. (GSW DSEIR p. 5.6-19; FSEIR, Chapter 12, Section 12.2.2; Response WS-1.)



2. **Impact C-WS-2**, Cumulative shadow impacts on publically accessible open space or public areas within Mission Bay South Plan Area (GSW DSEIR p. 5.6-21; RTC, Response WS-2.)

3. **Impact C-WS-3**, Cumulative shadow impacts on publically accessible open space or public areas outside Mission Bay South Plan Area (GSW DSEIR p. 5.6-23; RTC, Response WS-2.)

**I. Recreation**

1. **Impact RE-1**, Effects on existing parks and recreational facilities. (GSW DSEIR Appendix NOP-IS p. 62; RTC, Response REC-1; Response REC-2.)

2. **Impact RE-2**, Project requires construction or expansion of recreational facilities. (GSW DSEIR Appendix NOP-IS p. 63; RTC, Response REC-1; Response REC-2.)

3. **Impact C-RE-1**, Cumulative recreational impacts. (GSW DSEIR Appendix NOP-IS p. 64.)

**J. Utilities and Service Systems**

1. **Impact UT-1**, Effects on water supply facilities or entitlements. (GSW DSEIR Appendix NOP-IS p. 66; RTC, Response UTIL-1; Response UTIL-2.)

2. **Impact UT-2**, Construction of new or expanded water treatment facilities. (GSW DSEIR Appendix NOP-IS p. 68; RTC, Response UTIL-1)

3. **Impact UT-3**, Sufficient permitted landfill capacity for Project's waste disposal needs. (GSW DSEIR Appendix NOP-IS p. 69.)

4. **Impact UT-4**, Project complies with federal, state and local statutes and regulations related to solid waste. (GSW DSEIR Appendix NOP-IS p. 71.)

5. **Impact UT-5**, Project in itself would require the construction of new, or expansion of existing, wastewater treatment facilities. (GSW DSEIR p. 5.7-11; RTC, Response UTIL-3; Response UTIL-4; Response UTIL-6.)

6. **Impact C-UT-1**, Cumulative utilities and service system impacts (GSW DSEIR Appendix NOP-IS p. 72.)

7. **Impact C-UT-3**, Cumulative impact on demand for new stormwater drainage facilities or expansion of existing facilities (GSW DSEIR p. 5.8-18; RTC, Response UTIL-7; Response UTIL-8.)

**K. Public Services**



1. **Impact PS-1**, Effects of Project on need for new or altered governmental facilities for schools or other services. (GSW DSEIR Appendix NOP-IS p. 75; RTC, Response PS-3.)
2. **Impact PS-2**, Effects of Project construction on fire protection, emergency medical services and law enforcement. (GSW DSEIR p. 5.8-11; RTC, Response PS-1; Response PS-2.)
3. **Impact PS-3**, Effects of Project operation on fire protection or emergency medical services. (GSW DSEIR p. 5.8-12; RTC, Response PS-1; Response PS-2.)
4. **Impact PS-4**, Effects of Project operation on law enforcement. (GSW DSEIR p. 5.8-14; RTC, Response PS-1; Response PS-2.)
5. **Impact C-PS-1**, Cumulative impacts on schools or other services (GSW DSEIR Appendix NOP-IS p. 75; RTC, Response PS-3.)
6. **Impact C-PS-2**, Cumulative impacts on fire protection, emergency medical services and law enforcement (GSW DSEIR p. 5.8-16; RTC, Response PS-1; Response PS-2.)

#### **L. Biological Resources**

1. **Impact BI-1**, Effects of Project on special status species. (GSW DSEIR Appendix NOP-IS p. 77; RTC, Response BIO-1; Response BIO-2; Response BIO-3.)
2. **Impact BI-2 (NI)**, Effects of Project on riparian habitat or sensitive natural community. (GSW DSEIR Appendix NOP-IS p. 79; RTC, Response BIO-1; Response BIO-4.)
3. **Impact BI-3**, Effects of Project on wetlands or navigable waters. (GSW DSEIR Appendix NOP-IS p. 79; RTC, Response BIO-1; Response BIO-2; Response BIO-5.)
4. **Impact BI-5**, Project complies with local policies or ordinances protecting biological resources (GSW DSEIR Appendix NOP-IS p. 83.)
5. **Impact C-BI-1**, Cumulative impacts on biological resources (GSW DSEIR Appendix NOP-IS p. 84; RTC, Response BIO-1; Response BIO-2; Response BIO-3; Response BIO-4; Response BIO-5; Response BIO-6.)

#### **M. Geology and Soils**

1. **Impact GE-1**, Exposure of people to rupture of earthquake fault, seismic groundshaking, ground failure or landslides. (GSW DSEIR Appendix NOP-IS p. 86; RTC, Response GEO-1; Response GEO-2; Response GEO-3; Response GEO-4.)



2. **Impact GE-2**, Erosion or loss of top soil. (GSW DSEIR Appendix NOP-IS p. 87.)
3. **Impact GE-3**, Location of Project on unstable soils, or creation of unstable soils by Project. (GSW DSEIR Appendix NOP-IS p. 88; RTC, Response GEO-5.)
4. **Impact GE-4**, Location of Project on expansive or problematic soils. (GSW DSEIR Appendix NOP-IS p. 91; RTC, Response GEO-6.)
5. **Impact GE-5**, Effect of Project on topography or unique geologic features (GSW DSEIR Appendix NOP-IS p. 92.)
6. **Impact C-GE-1**, Cumulative impacts related to geologic hazards (GSW DSEIR Appendix NOP-IS p. 92.)

**N. Hydrology and Water Quality**

1. **Impact HY-1**, Violation of water quality standards or degradation of water quality from construction-related activities (GSW DSEIR Appendix NOP-IS p. 99; RTC, Response HYD-2.)
2. **Impact HY-1a**, Violation of water quality standards or degradation of water quality from construction-related dewatering. (GSW DSEIR p. 5.9-31; RTC, Response HYD-1.)
3. **Impact HY-2**, Effects of Project operation on groundwater supplies and groundwater recharge. (GSW DSEIR Appendix NOP-IS p. 101.)
4. **Impact HY-3**, Effects of Project on existing drainage patterns and rates and amounts of surface runoff. (GSW DSEIR Appendix NOP-IS p. 102.)
5. **Impact HY-4**, Effects of Project on flood risk exposure and flood flows. (GSW DSEIR Appendix NOP-IS p. 102; RTC, Response HYD-6.)
6. **Impact HY-5**, Effects of Project on exposure to seiche or tsunami inundation. (GSW DSEIR Appendix NOP-IS p. 103; RTC, Response HYD-8.)
7. **Impact HY-7**, Effect of Project on exposure to flooding. (GSW DSEIR p. 5.9-41; RTC, Response HYD-6; Response HYD-7.)
8. **Impact C-HY-1**, Cumulative effects on hydrology and water. (GSW DSEIR Appendix NOP-IS p. 105; RTC, Response HYD-1; Response HYD-6; Response HYD-7; Response HYD-8.)
9. **Impact C-HY-2**, Cumulative impacts on compliance with National Pollutant Discharge Elimination System ("NPDES") permit requirements, water quality standards



or waste water requirements related to changes in wastewater and stormwater discharges; on the Mission Bay separate stormwater system; or on polluted runoff. Cumulative wet weather flows would not contribute to an increase in combined sewer discharges. (GSW DSEIR p. 5.9-44; RTC, Response HYD-3; Response HYD-5.)

**10. Impact C-HY-3**, Cumulative impacts on flood risk (GSW DSEIR p. 5.9-48; RTC, Response HYD-6; Response HYD-7.)

**O. Hazards and Hazardous Materials**

**1. Impact HZ-3**, Effects on adopted emergency response and evacuation plans, and fire exposure risk. (GSW DSEIR Appendix NOP-IS p. 119; RTC, Response HAZ-8.)

**2. Impact C-HZ-1**, Cumulative impacts related to hazardous materials. (GSW DSEIR Appendix NOP-IS p. 121.)

**P. Mineral and Energy Resources**

**1. Impact ME-1**, Project utilization of large amounts of fuel, water or energy (GSW DSEIR Appendix NOP-IS p. 123; FSEIR, Chapter 12, Section 12.3.2; Response EN-1; Response PD-4.)

**2. Impact C-ME-1**, Cumulative impacts on energy resources (GSW DSEIR Appendix NOP-IS p. 125.)

**III. FINDINGS OF POTENTIALLY SIGNIFICANT IMPACTS THAT CAN BE AVOIDED OR REDUCED TO A LESS-THAN-SIGNIFICANT LEVEL**

Public Resources Code section 21002 provides that “public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects[.]” The same statute provides that the procedures required by CEQA “are intended to assist public agencies in systematically identifying both the significant effects of projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects.”

The mandate and principles announced in Public Resources Code section 21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required. For each significant environmental effect identified in an EIR for a project, the approving agency must issue a written finding reaching one or more of three permissible conclusions. (CEQA Guidelines, § 15091.) The first such finding is that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR. (CEQA Guidelines, § 15091, subd. (a)(1).) The second permissible finding is that such changes or alterations are within the responsibility and jurisdiction of another public agency and not the



agency making the finding, and such changes have been adopted by such other agency or can and should be adopted by such other agency. (CEQA Guidelines, § 15091, subd. (a)(2).) The third potential conclusion is that specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR. (CEQA Guidelines, § 15091, subd. (a)(3).) Public Resources Code, section 21061.1 defines “feasible” to mean “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, legal, and technological factors.” CEQA Guidelines section 15364 adds another factor: “legal” considerations. (See also *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 565 (“*Goleta I*”).)

The concept of “feasibility” also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417 (*City of Del Mar*); *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1506-1509 [court upholds CEQA findings rejecting alternatives in reliance on applicant’s project objectives]; see also *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001 (CNPS) [“an alternative ‘may be found infeasible on the ground it is inconsistent with the project objectives as long as the finding is supported by substantial evidence in the record’”] (quoting 1 Kostka & Zischke, *Practice Under the Cal. Environmental Quality Act* [Cont.Ed.Bar 2d ed. 2009], § 17.30, p. 825); *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165, 1166 [“[i]n the CALFED program, feasibility is strongly linked to achievement of each of the primary program objectives”; “a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need not study alternatives that cannot achieve that basic goal”].) Moreover, “‘feasibility’ under CEQA encompasses ‘desirability’ to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors.” (*City of Del Mar*, *supra*, 133 Cal.App.3d at p. 417; see also CNPS, *supra*, 177 Cal.App.4th at p. 1001 [“an alternative that ‘is impractical or undesirable from a policy standpoint’ may be rejected as infeasible”] [quoting 2 Kostka & Zischke, *Practice Under the Cal. Environmental Quality Act*, *supra*, § 17.29, p. 824]; *San Diego Citizenry Group v. County of San Diego* (2013) 219 Cal.App.4th 1, 17.)

The findings in this Section III and Section IIIA and in Section IV and Section IVA concern mitigation measures set forth in the FSEIR. These findings discuss mitigation measures as proposed in the FSEIR and as recommended for adoption by the OCII Commission. The full explanation of the potentially significant environmental impacts is set forth in the GSW DSEIR (including the Initial Study which OCII made part of the GSW DSEIR through its inclusion in GSW DSEIR Volume 3 – Appendix NOP-IS) and in some cases is further explained in the RTC. As indicated in the MMRP, in most cases, mitigation measures will be implemented by OCII or the Project Sponsor. In these cases, implementation of mitigation measures will be made



conditions of project approval. For each of these mitigation measures and the impacts they address, the OCII Commission finds that changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect as identified in the GSW FSEIR. (CEQA Guidelines, § 15091, subd. (a)(1).)

In the case of all other mitigation measures, an agency other than OCII (either another City agency or a non-City agency) will have responsibility for implementation or assisting in the implementation or monitoring of mitigation measures. This is because certain mitigation measures are partly or wholly within the responsibility and jurisdiction of another public agency (other than OCII). In such instances, the entity that will be responsible for implementation is identified in the MMRP for the Project (**Exhibit B**). Generally, OCII has designated the agencies to implement mitigation measures as part of their existing permitting or program responsibilities. Based on past experience and ongoing relationships and communications with these agencies, OCII has reason to believe that they can and will implement the mitigation measures assigned to them. These agencies include, for example, the San Francisco Municipal Transportation Agency ("SFMTA"), which operates and maintains local traffic and transit systems, Port, which manages Port property, and other agencies, which will participate in mitigation measure implementation through their normal program operations, such as the Ballpark/Mission Bay Transportation Coordinating Committee. In the case of SFMTA, to the extent that mitigation measures identify new SFMTA responsibilities, SFMTA has indicated to OCII that it generally finds that it will be feasible to implement the mitigation measures.<sup>4</sup>

The OCII also will be assisted in monitoring implementation of mitigation measures by other agencies, as indicated in the MMRP in **Exhibit B**, such as the San Francisco Entertainment Commission, the San Francisco Department of Building Inspection ("DBI"), the San Francisco Department of Public Works ("SFPW") through their permit responsibilities, the San Francisco Public Utilities Commission ("SFPUC") through its operation of the City's combined sewer system, or the SFMTA as part of its operation and maintenance of traffic and transit systems. For each of these mitigation measures and the impacts they address, the OCII Commission finds that the changes or alterations are in whole or in part within the responsibility and jurisdiction of a public agency other than OCII and that the changes have been adopted by such other agency or can and should be adopted by such other agency. (CEQA Guidelines, § 15091, subd. (a)(2).)

The mitigation measures proposed for adoption in Sections III, IIIA, IV and IVA are the same as the mitigation measures identified in the FSEIR for the Project as proposed. The full text of all of the mitigation measures as proposed for adoption is contained in **Exhibit B**, the MMRP.

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<sup>4</sup> Letter from SFMTA Director of Transportation Edward D. Reiskin to Tiffany Bohee, OCII Executive Director, dated May 15, 2015 and Letter from SFMTA Director of Transportation Edward D. Reiskin to Tiffany Bohee, OCII Executive Director, dated October 20, 2015.



The OCII Commission adopts all of the mitigation measures proposed for the Project that are within the jurisdiction and control of OCII. For those mitigation measures that are the responsibility of agencies other than OCII (e.g., the City and County of San Francisco and its subsidiary agencies), the OCII Commission finds that those measures can and should be implemented by the other agencies as part of their existing permitting or program responsibilities. Based on the analysis contained in the GSW DSEIR and FSEIR, other considerations in the record, and the standards of significance, the OCII Commission finds that implementation of all of the proposed mitigation measures discussed in this Section III and Section IIIA will reduce potentially significant impacts to a less-than-significant level.

#### **A. Cultural and Paleontological Resources**

**1. Impact CP-2: Adverse change in the significance of an archaeological resource.** (GSW DSEIR Appendix NOP-IS p. 48; RTC, Section 13.10.2, Response CULT-1.) The Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5. Specifically, there is a reasonable presumption that archaeological resources may be present within the project site that could be disturbed during subsurface construction. However, the impact can be reduced to a less-than-significant level through Mitigation Measure M-CP-2a and Mitigation Measure M-CP-2b. Implementation of Mitigation Measure M-CP-2a would reduce any potential impacts to archaeological resources by retaining an archeological consultant to create a testing program and be available to conduct an archaeological monitoring and/or data recovery program. If an archaeological site associated with descendant Native Americans, the Overseas Chinese, or other descendant group is discovered, a representative of that descendant group shall be contacted and can monitor the archaeological field investigations of the site. Implementation of Mitigation Measure M-CP-2b would reduce any potential impacts to accidentally discovered buried or submerged historical resources by distributing an “ALERT” sheet to the Project prime contractor, to any Project subcontractor, or to any utilities firm involved in soils disturbing activities. If an archaeological resource is encountered, the soil disturbing activities shall be suspended until OCII or its designated representative determines what additional measures should be undertaken.

**MM M-CP-2a: Archaeological Testing, Monitoring and/or Data Recovery Plan**

**MM M-CP-2b: Accidental Discovery of Archaeological Resources**

#### **B. Transportation and Circulation**

**1. Impact TR-6: Pedestrian impacts without an overlapping SF Giants evening game.** (GSW DSEIR p. 5.2-147; RTC, Response, TR-2; Response TR-6.) The Project could result in sidewalk overcrowding or potentially hazardous pedestrian conditions



without an overlapping SF Giants evening game. Overall, the Project would implement numerous improvements that would enhance pedestrian conditions and safety in the Project vicinity. The existing and proposed pedestrian facilities would be adequate to meet the pedestrian demand associated with the Project uses. The exception would be the crosswalks at the intersection of Third/South, which would operate at LOS E or LOS F conditions during the weekday evening and late evening, and Saturday evening conditions for sell-out events (i.e., the Basketball Game scenario). Mitigation Measure M-TR-6: Active Management of Pedestrian Flows at the Intersection of Third/South and the Project's TMP protocols for events would manage short-term peak pedestrian flows at adjacent intersections and would mitigate pedestrian impacts to less-than-significant levels. At all other locations and Project conditions, the addition of Project-generated pedestrian trips would not substantially affect pedestrian flows, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas.

**MM M-TR-6: Active Management of Pedestrian Flows at the Intersection of Third/South.**

**2. Impact TR-9a: Temporary obstruction of UCSF helipad airspace surfaces.**

(GSW DSEIR p. 5.2-262; FSEIR, Chapter 12, Section 12.3.1; Response TR-12.)

Placement and usage of cranes during construction could temporarily obstruct helipad airspace surfaces. The GSW DSEIR determined that, based on the preliminary Project construction plan for the Project construction cranes, one of the Project construction cranes would have the potential to result in a temporary penetration of a Part 77 Transitional Surface associated with the helipad, which would be considered a potentially significant impact. After publication of the GSW DSEIR, the Project Sponsor refined its construction crane plan with the goal to further reduce potential Project effects on the UCSF helipad during construction. Based on the analysis of the refined construction crane plan, none of the proposed tower construction cranes would penetrate the Part 77 Approach or Transitional Surfaces associated with the UCSF helipad. Furthermore, adequate clearance for the construction cranes would be provided for the South Street alternate flight path. However, if the refined construction crane plan details were to change with respect to proposed tower crane size, location or other factors, then the Project would have the potential to result in greater and/or less effects. Mitigation Measure M-TR-9a, Crane Safety Plan for Project Construction, identifies feasible measures that would reduce potential temporary impacts associated with the use of cranes during the construction period to less than significant. The objective of the crane safety plan is to ensure the safe use of the UCSF Benioff Children's Hospital helipad, and the safety for people residing or working in the Project area during construction. Therefore, with implementation of Mitigation Measure M-TR-9a, this impact would be less than significant with mitigation.



### **MM M-TR-9a: Crane Safety Plan for Project Construction**

**3. Impact TR-9d: Lighting impacts on UCSF helipad flight operations** (GSW DSEIR p. 5.2-270; FSEIR, Chapter 12, Section 12.3.1; Response TR-12; Response TR-PD-1.) Routine and specialized exterior lighting could impact flight operations. The use of certain specialized lighting systems would have the potential to adversely affect a pilot's vision and execution of a visual night time approach or departure to/from the UCSF helipad. Lights that adversely affect the night vision of pilots and interfere with the execution of a visual nighttime approach to the helipad would endanger the pilot, passengers, and people on the ground. Therefore, the possible use of these specialized lighting systems would be considered a potentially significant impact. Mitigation Measure M TR-9d: Event Center Exterior Lighting Plan identifies feasible measures that would reduce potential impacts associated with potential specialized lighting systems to less than significant.

### **MM M-TR-9d: Event Center Exterior Lighting Plan**

**4. Impact TR-13: Local transit impacts with overlapping evening SF Giants game.** (GSW DSEIR p. 5.2-183; RTC, Response TR-2; Response TR-5; Response TR-2; Response TR-5; Response TR-12.) Implementation of the Project could result in substantial increase in transit demand that could not be accommodated by adjacent Muni transit capacity with an overlapping evening SF Giants game. Overall, on days with overlapping evening events at the project site and at AT&T Park, transit demand would exceed the capacity prior to and following the events, and the Project would result in significant transit impacts. Implementation of Mitigation Measure M-TR-13: Enhanced Muni Transit Service during Overlapping Events would minimize transit impacts. The additional Muni capacity would generally be within what is currently provided for SF Giants games and the additional capacity provided as part of the Muni Special Event Transit Service Plan for the Project. Implementation of the mitigation measure would ensure that Muni service would be provided to accommodate the T Third demand via Muni bus shuttles to AT&T Park and/or the proposed event center, and would not result in secondary transportation impacts. Thus, with implementation of this mitigation measure, the Project's transit impacts would be less than significant with mitigation.

### **MM M-TR-13: Enhanced Muni Transit Service during Overlapping Events**

**5. Impact TR-15: Pedestrian impacts with an overlapping SF Giants evening game.** (GSW DSEIR p. 5.2-185; RTC, Response TR-2.) The Project could result in sidewalk overcrowding or potentially hazardous pedestrian conditions with an overlapping SF Giants game. Overall, on days with overlapping evening events at the project site and at AT&T Park, pedestrian conditions would become more crowded prior to and following the events; however, with the TMP transportation management



strategies and implementation of Mitigation Measure M-TR-6: Active Management of Pedestrian Flows at the Intersection of Third/South, the impact of the Project on pedestrians during overlapping evening events would be less than significant with mitigation.

**MM M-TR-6: Active Management of Pedestrian Flows at the Intersection of Third/South.**

**6. Impact TR-22, Pedestrian impacts without Muni Special Event Transit Service Plan** (GSW DSEIR p. 5.2-203; RTC, Response TR-2). Without the implementation of the Muni Special Event Transit Service Plan, the number of attendees arriving by transit would decrease while the number of attendees arriving by automobiles would increase. Mitigation Measure M-TR-22: Provide Safe Pedestrian Access to Adjacent Transit and Parking Facilities and Monitoring would ensure that the pedestrian impacts would remain the same as those identified in Impact TR-6 for pedestrian conditions without an overlapping SF Giants evening game and in Impact TR-15 for pedestrian conditions with an overlapping SF Giants evening game irrespective of whether SFMTA Parking Control Officers (“PCOs”) were available during various events, and would not result in secondary transportation impacts. With implementation of Mitigation Measure M-TR-22: Provide Safe Pedestrian Access to Adjacent Transit and Parking Facilities, Project-generated pedestrian demand during large events would not substantially affect pedestrian flows, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas. Therefore, without implementation of the Muni Special Event Transit Service Plan, the Project’s impact on pedestrians would be less than significant with mitigation.

**MM M-TR-22: Provide Safe Pedestrian Access to Adjacent Transit and Parking Facilities and Monitoring**

**C. Noise and Vibration**

**1. Impact NO-4: Noise in excess of General Plan and Noise Ordinance standards during operations.** (GSW DSEIR p. 5.3-27; FSEIR, Chapter 12, Section 12.2.1; Response NOI-2; Response PD-1.) Operation of the event center would introduce new stationary noise sources to the Project area. Operation of the Project would introduce new stationary noise sources that would be subject to the requirements of the San Francisco Noise Ordinance. These new sources include generators and mechanical equipment, as well as the potential for amplified sound within the Third Street plaza. As explained in the GSW DSEIR and the RTC Document, predicted noise levels from new stationary sources would not meaningfully contribute to the existing monitored ambient noise levels in the Project area, and the Project would therefore be consistent with the restrictions of the noise ordinance.



The Project would also introduce new land uses, and these new uses would be exposed to noise levels of up to 75 DNL. However, modern building techniques and materials, as well as inclusion of non-operable windows and ventilation systems, would be sufficient to ensure that the Project would comply with land use compatibility requirements of the San Francisco General Plan, and this impact would be less than significant.

With respect to amplified sound, either interior to the event center or in open-air plazas on the project site, the predicted sound levels and hours of occurrence would be consistent with the noise ordinance. However, due to uncertainties as to the nature and extent of future outside events at the Third Street Plaza, implementation of Mitigation Measure M-NO-4a: Noise Control Plan for Outdoor Amplified Sound would ensure that noise levels from amplified sound exterior to the event center would comply with the noise ordinance. In addition, implementation of Mitigation Measure M-NO-4b: Noise Control Plan for Place of Entertainment Permit would ensure that noise levels from concerts, basketball games, and other events would comply with the noise ordinance, regardless of current unknowns as to the nature of future events within the arena. Therefore, this impact would be less than significant with mitigation.

**MM M-NO-4a: Noise Control Plan for Outdoor Amplified Sound**

**MM M-NO-4b: Noise Control Plan for Place of Entertainment Permit**

**D. Air Quality**

**1. Impact AQ-4: Potential conflicts with BAAQMD's 2010 Clean Air Plan.**

(GSW DSEIR p. 5.4-51; RTC, Response AQ-1; Response AQ-2; Response AQ-3; Response AQ-4; Response AQ-6; Response AQ-7.) Without mitigation measures or the adoption of control measures, emissions associated with the Project could conflict with the 2010 Clean Air Plan ("CAP"). The Project would be consistent with the 2010 CAP, however, with implementation of mitigation measures, which include offsetting emissions to below significance thresholds in addition to Project-specific measures to reduce pollutant emissions. Additionally, the Project would be consistent with the 2010 CAP by virtue of incorporation of control measures of the CAP, including land use/local impact measures and energy/climate measures as well as the transportation demand management measures incorporated in the Project. The Project would also not hinder implementation of the 2010 CAP. Therefore, the Project would not conflict with, or obstruct implementation of the 2010 Clean Air Plan, and this impact would be less than significant with mitigation.

**MM M-AQ-1: Construction Emissions Minimization**

**MM M-AQ-2a: Reduce Operational Emissions**



## **MM M-AQ-2b: Emissions Offsets**

### **E. Wind and Shadow**

**1. Impact WS-1: Wind effects on off-site public spaces.** (GSW DSEIR p. 5.6-10; FSEIR, Chapter 12, Section 12.2.2; Response WS-1.) The GSW DSEIR indicated that the Project could result in a net increase in the total duration of the wind hazard exceedance at off-site public walkways in the Project vicinity and proposed Mitigation Measure M-WS-1: Develop and Implement Design Measures to Reduce Project Off-site Wind Hazards, which describes potential design measures that would serve to reduce or avoid Project wind hazards. Although preliminary evaluation by the Project Sponsor of certain potential on-site design modifications indicated such modifications would be effective in reducing the Project wind hazard impact to a less than significant, the impact was conservatively identified as significant and unavoidable with mitigation because Project design was not yet finalized. After publication of the GSW DSEIR, the Project Sponsor pursued design measures as required by Mitigation Measure M-WS-1, and identified an on-site design modification that would reduce the Project wind hazard impact to less than significant as verified by wind tunnel testing. Because design modifications have been identified, the impact will be reduced to a level of less than significant through Mitigation Measure M-WS-1.

Under the Third Street Plaza Variant, the Project would not alter wind in a manner that would substantially affect off-site public areas, and, accordingly, the impact would be less than significant and no mitigation would be required.

#### **MM M-WS-1: Develop and Implement Design Measures to Reduce Project Off-site Wind Hazards**

### **F. Biological Resources**

**1. Impact BI-4: Effects on the movement of wildlife or established migratory corridors or nurseries** (GSW DSEIR Appendix NOP-IS p. 81; RTC, Response BIO-1; Response BIO-6; PD-1.) The Project could interfere substantially with the movement of native resident or migratory wildlife species resident or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Specifically, migratory and resident birds which breed locally in San Francisco have the potential to nest in shrub vegetation observed within the project site and could be adversely affected by Project construction. Implementation of Mitigation Measure M-BI-4a: Preconstruction Surveys for Nesting Birds would avoid disrupting or destroying active nests which could occur within the Project site during bird breeding season, and would reduce this impact to less than significant. Migratory birds may also be affected by increased risk of collisions with the proposed structures and due to the Project's artificial night lighting. This impact will be reduced due to a level of less than



significant through Mitigation Measure M-BI-4b: Bird Safe Building Practices, which requires bird safe practices in the proposed building and lighting design that are consistent with the City's *Standards for Bird-Safe Buildings*.

**MM M-BI-4a: Preconstruction Surveys for Nesting Birds**

**MM M-BI-4b: Bird Safe Building Practices**

**G. Hydrology and Water Quality**

**1. Impact HY-6: Operational effects on water quality** (GSW DSEIR p. 5.9-33; RTC, Response HYD-2; Response HYD-3; Response HYD-4; Response HYD-5.)  
Operation of the Project could affect the quality of effluent discharges from the Southeast Water Pollution Control Plant if future uses at the project site were to discharge unusual chemicals or pollutants not typically associated with most other San Francisco discharges, such as radioactive or biohazardous materials. National Pollutant Discharge Elimination System Mitigation Measure M-HY 6: Wastewater Sampling Ports will reduce the impacts to a level of less-than-significant by installing sampling ports as part of the Project design to facilitate sampling to monitor discharge quality and by participating in the City's existing Water Pollution Prevention Program.

**MM M-HY-6: Wastewater Sampling Ports**

**H. Hazards and Hazardous Materials**

**1. Impact HZ-1: Routine transport, use and disposal of hazardous materials.** (GSW DSEIR Appendix NOP-IS p. 111; RTC, Response HAZ-4; Response REC-1.)  
During operation, the proposed event center and other development would use common types of hazardous materials, such as cleaners, disinfectants and chemical agents, as well as diesel fuel for generators. This impact will be reduced to a level below significance by implementation of Mitigation Measure M-HZ 1a: Guidelines for Handling Biohazardous Materials, which requires that any businesses that handle biohazardous materials to certify that they follow the safety guidelines, use high efficiency particulate air filters or substantially equivalent devices, do not handle or use biohazardous materials requiring Biosafety Level 4 containment. In addition, during construction, there is the potential to encounter serpentinite, which could contain naturally occurring asbestos. This impact will be further reduced to less than significant by implementation of Mitigation Measure M-HZ 1b: Geologic Investigation and Dust Mitigation Plan for Naturally Occurring Asbestos, which will limit any potential exposure to naturally occurring asbestos. Together, these mitigation measures will reduce this impact to a level that is less than significant.

**MM M-HZ-1a: Guidelines for Handling Biohazardous Materials**



**MM M-HZ-1b: Geologic Investigation and Dust Mitigation Plan for  
Naturally Occurring Asbestos**

**2. Impact HZ-2: Exposure to Contaminants during Construction.** (GSW DSEIR Appendix NOP-IS p. 115; RTC, Response HAZ-1; Response HAZ-2; Response HAZ-3; Response HAZ-7.) The Project would be located on a site identified on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Construction activities associated with the Project could expose construction workers, the public, or the environment to hazardous materials. A Risk Management Plan (“RMP”) was prepared subsequent to and as required by the Mission Bay FSEIR, and remedial actions consistent with the RMP have been completed. Compliance with the RMP, as required by the deed restriction, would ensure that human health and environmental risks during and after development of the Project would be within acceptable levels and no new or different mitigation would be required. However, the Mission Bay FSEIR determined that further risk evaluation would be required, if future uses at the project site were to include a public school or child care facility. Thus, in the event that child care facilities were to occur under the Project, implementation of Mitigation Measure M-HZ-2: RMP Provisions for Child Care Facilities, would reduce this impact to less than significant.

**MM M-HZ-2: RMP Provisions for Child Care Facilities**

**IIIA. FINDINGS FOR POTENTIALLY SIGNIFICANT CUMULATIVE IMPACTS  
THAT CAN BE AVOIDED OR REDUCED TO A LESS-THAN-SIGNIFICANT LEVEL**

**A. Cultural and Paleontological Resources**

**1. Impact C-CP-1: Contribution to Cumulative Impacts on Cultural Resources** (GSW DSEIR Appendix NOP-IS p. 57.) Implementation of the Project, along with cumulative projects in the Mission Bay area, could have a significant impact on recorded and unrecorded archeological resource. The Project’s contribution to this cumulative impact would be avoided or substantially reduced by the implementation of Mitigation Measures M-CP-2a: Archaeological Testing, Monitoring and/or Data Recovery Program and M-CP-2b: Accidental Discovery of Archaeological Resources. Implementation of Mitigation Measure M-CP-2a would reduce any potential impacts to archeological resources by retaining an archeological consultant to create a testing program and be available to conduct an archaeological monitoring and/or data recovery program. If an archaeological site associated with descendant Native Americans, the Overseas Chinese, or other descendant group is discovered, a representative of that descendant group shall be contacted and can monitor the archaeological field investigations of the site. Implementation of Mitigation Measure M-CP-2b would reduce any potential impacts to accidentally discovered buried or submerged historical resources by distributing an



“ALERT” sheet to the Project’s prime contractor, to any Project subcontractor, or to any utilities firm involved in soils disturbing activities. If an archeological resource is encountered, the soil disturbing activities shall be suspended until OCII or its designated representative determines what additional measures should be undertaken. Consequently, with implementation of these mitigation measures, the Project would not make a considerable contribution to the cumulative impact, and this impact would be less than significant with mitigation.

**Mitigation Measure M-CP-2a: Archaeological Testing, Monitoring and/or Data Recovery Program**

**Mitigation Measure M-CP-2b: Accidental Discovery of Archaeological Resources**

**B. Transportation and Circulation**

**1. Impact C-TR-4: Contribution to Cumulative Impacts on Muni** (GSW DSEIR p. 5.2-222; RTC, Response TR-2; Response TR-12.) 2040 cumulative conditions could have significant impacts on Muni service and could contribute transit impacts at Muni screenlines. The Project’s contribution to this cumulative impact would be avoided or substantially reduced by the implementation of Mitigation Measure M-TR-13: Enhanced Muni Transit Service during Overlapping Events. The additional Muni capacity would generally be within what is currently provided for SF Giants games and the additional capacity provided as part of the Muni Special Event Transit Service Plan for the Project. Implementation of the mitigation measure would ensure that Muni service would be provided to accommodate the T Third demand via Muni bus shuttles to AT&T Park and/or the proposed event center, and would not result in secondary transportation impacts. Thus, with implementation of this mitigation measure, the Project’s transit impacts would be less than cumulatively considerable (i.e., less than significant) with mitigation.

**Mitigation Measure M-TR-13: Enhanced Muni Transit Service during Overlapping Events**

**2. Impact C-TR-6: Contribution to Cumulative Impacts on Pedestrians** (GSW DSEIR p. 5.2-227; RTC, Response TR-2.) Pedestrian volumes would increase between implementation of the Project and 2040 cumulative conditions due to buildout of planned Mission Bay developments in the Project vicinity. The Project’s contribution to this cumulative impact would be avoided or substantially reduced by the implementation of Mitigation Measure M-TR-6: Active Management of Pedestrian Flows at the Intersection of Third/South, and the Project’s TMP protocols for events would manage short-term peak pedestrian flows at adjacent intersections. Consequently, with implementation of



this mitigation measure, the Project would not make a considerable contribution to the cumulative impact, and this impact would be less than significant with mitigation.

**Mitigation Measure M-TR-6: Active Management of Pedestrian Flows at the Intersection of Third/South**

**3. Impact C-TR-9: Contribution to Cumulative Construction Impacts on UCSF Helipad Operations** (GSW DSEIR p. 5.2-231; FSEIR, Chapter 12, Section 12.3.1.) Under cumulative conditions, development in the immediate Project vicinity would have the potential to result in cumulative impacts to the UCSF helipad. The Project's contribution to this cumulative impact would be avoided or substantially reduced by the implementation of Mitigation Measure M-TR-9a: Crane Safety Plan for Project Construction, which identifies feasible measures that would reduce potential temporary impacts associated with the use of cranes during the construction period and ensure the safe use of the UCSF Benioff Children's Hospital helipad, and the safety for people residing or working in the Project area during construction. Consequently, with implementation of this mitigation measure, the Project would not make a considerable contribution to the cumulative impact, and this impact would be less than significant with mitigation.

**Mitigation Measure M-TR-9a: Crane Safety Plan for Project Construction**

**C. Noise and Vibration**

**1. Impact C-NO-1: Contribution to Cumulative Construction Noise Impacts** (GSW DSEIR p. 5.3-39; FSEIR, Chapter 12, Sections 12.2.3, 12.3.2; Response NOI-2.) Cumulative construction noise in the Project area could cause a substantial temporary or periodic increase in ambient noise levels during Project construction. The Project's contribution to this cumulative impact would be avoided or substantially reduced by the implementation of Mitigation Measure C-NO-1: Construction Noise Control Measures, which requires site-specific noise attenuation measures during construction to reduce the generation of construction noise. Consequently, with implementation of this mitigation measure, the Project would not make a considerable contribution to the cumulative impact, and this impact would be less than significant with mitigation.

**Mitigation Measure M-C-NO-1: Construction Noise Control Measures**

**IV. SIGNIFICANT IMPACTS THAT CANNOT BE AVOIDED OR REDUCED TO A LESS THAN SIGNIFICANT LEVEL**

Based on substantial evidence in the whole record of these proceedings, the OCII Commission finds that, where feasible, changes or alterations have been required, or incorporated into, the Project to reduce the significant environmental impacts listed below as identified in the FSEIR.



The OCII Commission finds that the mitigation measures in the FSEIR and described below are appropriate, and that changes have been required in, or incorporated into, the Project that, to use the language of Public Resources Code section 21002 and CEQA Guidelines section 15091, may substantially lessen, but do not avoid (i.e., reduce to less-than-significant levels), the potentially significant or significant environmental effects associated with implementation of the Project as described in Sections III and IV.

The OCII Commission adopts all of the mitigation measures proposed in the FSEIR that are relevant to the Project and set forth in the MMRP, attached hereto as **Exhibit B**. The OCII Commission further finds, however, for the impacts listed below, that no feasible mitigation is currently available to render the effects less than significant. The effects therefore remain significant and unavoidable. Based on the analysis contained within the FSEIR, other considerations in the record and stated herein, and the standards of significance, the OCII Commission finds that because some aspects of the Project would cause potentially significant impacts for which feasible mitigation measures are not available to reduce the impact to a less-than-significant level, the impacts are significant and unavoidable.

With respect to a project for which significant impacts are not avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found that the project's "benefits" rendered "acceptable" its "unavoidable adverse environmental effects." (CEQA Guidelines, §§ 15093, 15043, subd. (b); see also Pub. Resources Code, § 21081, subd. (b).) The California Supreme Court has stated, "[t]he wisdom of approving . . . any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law requires that those decisions be informed, and therefore balanced." (*Goleta II, supra*, 52 Cal.3d at p. 576.) The OCII Commission determines that the following significant impacts on the environment, as reflected in the FSEIR, are unavoidable, but under Public Resources Code Section 21081, subdivisions (a)(3) and (b), and CEQA Guidelines 15091, subdivision (a)(3), 15092, subdivision (b)(2)(B), and 15093, the OCII Commission determines that the impacts are acceptable due to the overriding considerations described in Section VI below. This finding is supported by substantial evidence in the record of this proceeding.

#### **A. Transportation and Circulation**

**1. Impact TR-2: Effects on Vehicle Traffic on Multiple Intersections without SF Giants game.** (GSW DSEIR p. 5.2-117; FSEIR, Chapter 12; Response TR-2; Response TR-4; Response TR-12.) The Project would result in significant traffic impacts at seven intersections that would operate at LOS E or LOS F under Existing plus Project conditions without a SF Giants game at AT&T Park. These include the intersections of King/Fourth Streets, Fifth/Harrison Streets/I-280 westbound off-ramp, Fifth/Bryant



Streets/I-280 eastbound on-ramp, Third/Channel Streets, Fourth/Channel Streets, Seventh Street/Mission Bay Drive, and Seventh/Mississippi/16th Streets. Mitigation Measure M-TR-2a: Additional PCOs during Events would reduce the Project's impacts related to event-related traffic conditions, and would not result in secondary transportation-related impacts, but would not reduce impacts to less-than-significant levels. Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts would require the Project Sponsor to work with the City to pursue and implement commercially reasonable strategies to reduce transportation impacts. The measures identified above would reduce traffic congestion in the Project vicinity and would not result in secondary transportation impacts. However, even with implementation of these measures, the arrival and departure peak of vehicle trips to and from the event center through these intersections would continue to occur, and therefore, the Project's significant traffic impacts would remain significant and unavoidable with mitigation.

The Project would result in significant and unavoidable impacts at intersections not previously identified in the Mission Bay FSEIR due to event-related vehicles that would result in exceedance of the intersection LOS threshold. Mission Bay FSEIR Mitigation Measures 47a - 47c, and 47e - 47i would minimize traffic impacts but would not reduce them to less-than-significant levels, and traffic impacts would remain significant and unavoidable with mitigation.

**Mitigation Measure M-TR-2a: Additional PCOs during Events**

**Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts**

**Mission Bay FSEIR Mitigation Measure E.47: Transportation System Management Plan**

**2. Impact TR-3: Effect of Project on Traffic Volumes at Freeway Ramps without SF Giants game.** (GSW DSEIR p. 5.2-132; RTC, Response TR-2; Response TR-4; Response TR-12.) The Project would result in significant traffic impacts at the I-80 eastbound on-ramp at Fifth/Bryant Streets that would operate at LOS E or LOS F under Existing plus Project conditions without a SF Giants game at AT&T Park. Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts would help reduce the Project traffic increase on regional freeway mainline and ramps. However, the reduction in Project-generated vehicle trips would not reduce impacts to less-than-significant levels. Thus, for these reasons, the Project's impacts related to freeway ramp operations would be significant and unavoidable with mitigation.

**Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts.**



**3. Impact TR-5: Effect of Project Regional Transit Service Demand without SF Giants game.** (GSW DSEIR p. 5.2.144, RTC, Response TR-2; Response TR-5; Response TR-12.) The Project would result in a substantial increase in transit demand that could not be accommodated by regional transit capacity such that significant adverse impacts to regional transit service would occur under Existing plus Project conditions without a SF Giants game at AT&T Park. Implementation of Mitigation Measure M-TR-5a: Additional Caltrain Service and Mitigation Measure M-TR-5b: Additional North Bay Ferry and/or Bus would help reduce or minimize the severity of the capacity utilization exceedances for the regional transit service providers, and would not result in secondary transportation impacts. However, since the provision of additional South Bay and North Bay service is uncertain and full funding for the service has not yet been identified, the Project's significant impacts remain significant and unavoidable with mitigation.

**Mitigation Measure M-TR-5a: Additional Caltrain Service**

**Mitigation Measure M-TR-5b: Additional North Bay Ferry and/or Bus Service**

**4. Impact TR-11: Effect of Project Traffic at Multiple Intersections with SF Giants game.** (GSW DSEIR p. 5.2-171; RTC, Response TR-2; Response TR-4; Response TR-12.) On days with overlapping evening events at the project site and at AT&T Park, intersections in the Project vicinity would become more congested prior to and following the events, and the Project would result in significant traffic impacts at the following ten study intersections: King/Fifth/I-280 ramps, Fifth/Harrison Streets/I-80 westbound off-ramp, Fifth/Bryant Streets/I-80 eastbound on-ramp, Third/South Streets, Seventh Street/Mission Bay Drive, Fourth/16th Streets, Owens/16th Streets, Seventh/Mississippi/16th Streets, Illinois/Mariposa Streets, and Mariposa Street/I-280 northbound off-ramp. Implementation of Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts, Mitigation Measure M-TR-11a: Additional PCOs during Overlapping Events, and Mitigation Measure M-TR-11b: Participation in the Ballpark/Mission Bay Transportation Coordinating Committee would minimize the severity of traffic impacts at these intersections and would not result in secondary transportation impacts, but would not improve intersection LOS to LOS D or better. Thus, traffic impacts at the ten study intersections would remain significant and unavoidable with mitigation.

In addition to the mitigation measures described above, Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events would require the Project Sponsor to continue to work with the City to pursue and implement additional strategies to reduce transportation impacts. One potential strategy involves using off-site parking lot(s) south of the event center and providing shuttles to the event center if the location of off-site parking is not within walking distance to the event center;



but regardless, secondary traffic impacts associated with Mitigation Measure M-TR-11c, involving the use of one or more off-site parking lot(s) would contribute to the same significant and unavoidable impact (with mitigation) that would be caused by the Project-generated traffic described in the first paragraph in this impact statement above. With implementation of off-site parking lots during overlapping events as part of Mitigation Measure M-TR-11c, the significant traffic impacts identified above at the intersections of Fourth/16th Streets and Mariposa Street/I-280 northbound off-ramp would not occur, and instead a significant and unavoidable traffic impact would occur at the intersection of Pennsylvania/Cesar Chavez Streets/I-280 northbound off-ramp. Thus, with implementation of off-site parking lots during overlapping events as part of Mitigation Measure M-TR-11c, significant traffic impacts would occur at nine rather than ten intersections; however, impacts in the Project vicinity during overlapping evening events at the project site and at AT&T Park would remain significant and unavoidable with mitigation.

**Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts**

**Mitigation Measure M-TR-11a: Additional PCOs During Overlapping Events**

**Mitigation Measure M-TR-11b: Regular Participation in Ballpark/Mission Bay Transportation Coordinating Committee**

**Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events**

**5. Impact TR-12: Effect of Project Traffic at Freeway Ramps with SF Giants game.** (GSW DSEIR p. 5.2-180; RTC, Response TR-2; Response TR-4; Response TR-12.) The Project, under the Basketball Game scenario with an overlapping SF Giants evening game at AT&T Park, would result in a significant impact at the I-80 westbound off-ramp at Fifth/Harrison Streets during the weekday evening and Saturday evening peak hours (i.e., attendees driving to San Francisco from the East Bay), and at the I-280 northbound off-ramp at Mariposa Street during the weekday evening peak hour (i.e., attendees driving to the event center and AT&T Park from the south of the project site). The Project would also result in a significant impact at the I-80 eastbound on-ramp at Fifth/Bryant Streets during the weekday late evening peak hour (i.e., attendees returning to the East Bay). As discussed in Impact TR-3 for conditions without an overlapping SF Giants evening game, no feasible mitigation measures are available for the freeway ramp impacts because there is insufficient physical space for additional capacity without redesign of the I-80 and I-280 ramps and mainline structures, which may require acquisition of additional right-of-way; and other potential measures would not adequately



address the short-term peak travel patterns associated with special events. Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts and Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events would reduce the Project traffic increase on regional freeway mainline and ramps. However, the mitigation measures would not reduce impacts related to freeway ramp operations to less-than-significant levels. Thus, for these reasons, the Project's impacts related to freeway ramp operations would be significant and unavoidable with mitigation.

**Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts**

**Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events**

**6. Impact TR-14: Effect of Project on Regional Transit Demand with SF Giants game.** (GSW DSEIR p. 5.2-184, RTC, Response TR-2; Response TR-4; Response TR-12.) Under existing plus Project conditions with an overlapping SF Giants evening game at AT&T Park, the Project would result in significant Project-specific transit impacts to East Bay, North Bay and South Bay transit service. Implementation of Mitigation Measure M-TR-5a: Additional Caltrain Service, Mitigation Measure M-TR-5b: Additional North Bay Ferry and Bus Service, and Mitigation Measure M-TR-14: Additional BART Service to the East Bay during Overlapping Events would reduce or minimize the severity of the capacity utilization exceedances for the regional transit service providers, and would not result in secondary transportation impacts. However, since the provision of additional South Bay, North Bay and BART service is uncertain and full funding for the service has not yet been identified, the mitigation measures would not reduce the impact to a less-than-significant level. Accordingly, the Project's significant impacts to regional transit demand would be significant and unavoidable with mitigation.

**Mitigation Measure M-TR-5a: Additional Caltrain Service during Events**

**Mitigation Measure M-TR-5b: Additional North Bay Bus and Ferry Service during Events**

**Mitigation Measure M-TR-14: Additional BART Service to the East Bay during Overlapping Events**

**7. Impact TR-18. Effect of Project on Traffic Without Muni Special Event Transit Service Plan.** (GSW DSEIR p. 5.2-191, RTC, Response TR-2.) The Project without implementation of the Muni Special Event Transit Service Plan would result in significant traffic impacts at the following additional study intersections, or analysis



periods: Third/Channel Streets (weekday late evening), Fourth/Channel Streets (Saturday evening), Seventh Street/Mission Bay Drive (weekday late evening), Illinois/Mariposa Streets (weekday evening, Saturday evening), and Owens/16th Streets (weekday late evening). Mitigation Measure M-TR-2a: Additional PCOs during Events, Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts, and Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring, would reduce the severity of the impact and would not result in secondary transportation impacts. Even with implementation of the mitigation measures, however, the Project's traffic impacts would remain significant and unavoidable with mitigation.

**Mitigation Measure M-TR-2a: Additional PCOs during**

**Mitigation Measure M-TR-2b: Additional Measures to Reduce Transportation Impacts**

**Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring**

**8. Impact TR-19: Effect of Project Traffic on Freeway Ramps Without Muni Special Event Transit Service Plan.** (GSW DSEIR p. 5.2-197.) The Project without implementation of the Muni Special Event Transit Service Plan would result in significant traffic impacts at the following three additional freeway ramp locations: I-80 eastbound on-ramp at Fifth/Bryant Streets (weekday late evening), I-80 westbound off-ramp at Fifth/Harrison Streets (Saturday evening), I-280 northbound off-ramp at Mariposa Street (weekday evening). Mitigation Measure M-TR-2b: Auto Mode Share Performance Standard and Monitoring, and Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring, would reduce the severity of the impact, and would not result in secondary transportation impacts. Even with implementation of the mitigation measures, however, the Project's impacts related to freeway ramp operations would remain significant and unavoidable with mitigation.

**Mitigation Measure M-TR-2b: Additional Measures to Reduce Transportation Impacts**

**Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring**

**9. Impact TR-20: Effect of Project Transit Demand Without Muni Special Event Transit Service Plan.** (GSW DSEIR p. 5.2-199; RTC, Response TR-2; Response TR-5.) Under existing plus Project conditions without the Muni Special Event Transit Service Plan, the Project would result in significant Project-specific transit impacts, as follows: T Third during the weekday evening, weekday late evening, and Saturday evening peak hours; 22 Fillmore during the weekday late evening; and Saturday evening



peak hours. Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring would reduce the severity of the impact, and would not result in secondary transportation impacts. Even with implementation of this mitigation measure, however, the Project's impacts related to transit operations would remain significant and unavoidable with mitigation.

**Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring**

**10. Impact TR-21: Effect of Project Regional Transit Demand Without Muni Special Event Transit Service Plan.** (GSW DSEIR p. 5.2-202, RTC, Response TR-2.) Under existing plus Project conditions without a SF Giants game at AT&T Park and without the Muni Special Event Transit Service Plan, the Project would result in significant Project-specific transit impacts on WETA and Golden Gate Transit service during the weekday late evening peak hours. Implementation of Mitigation Measure M-TR-5a: Additional Caltrain Service and Mitigation Measure M-TR-5b: Additional North Bay Ferry and Bus Service would reduce or minimize the severity of the impact, but not to a less than significant level. Accordingly, the Project's significant impacts to regional transit capacity would remain significant and unavoidable with mitigation.

**Mitigation Measure M-TR-5a: Additional Caltrain Service**

**Mitigation Measure M-TR-5b: Additional North Bay Ferry and Bus Service**

**B. Noise**

**1. Impact NO-5: Noise Impacts from Project Traffic and Crowd Noise.** (GSW DSEIR p. 5.3-32; RTC, Response NOI-2; Response NOI-3; Response NOI-6.) Noise levels generated by crowds prior to, during, and after events could result in a substantial increase in noise levels at the receptor adjacent to the northbound Muni T-Line transit platform, particularly during nighttime egress hours of 9 p.m. to 11 p.m., and this impact would be significant and unavoidable. Operation of the Project would introduce new mobile noise sources that would contribute to ambient noise levels in the Project vicinity. Increases in roadway traffic noise would be significant and unavoidable during events either with or without implementation of the Muni Special Event Transit Service Plan, even with implementation of Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts and Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events. Therefore, the Project's effect on crowd and traffic noise remains significant and unavoidable with mitigation.

**Mitigation Measure M-TR-2c: Additional Strategies to Reduce Transportation Impacts**



## **Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events**

### **C. Air Quality**

#### **1. Impact AQ-1: Impacts of Criteria Air Pollutants from Construction**

**Activities.** (GSW DSEIR p. 5.4-28; FSEIR, Chapter 12, Sections 12.2.3, 12.3.2; Response AQ-1; Response AQ-2; Response AQ-3; Response AQ-4; Response AQ-6; Response PD-3.) Construction of the Project would generate emissions of fugitive dust and criteria air pollutants. The Project Sponsor, through its contractors, would be required to implement dust control measures in compliance with the requirements of the Construction Dust Control Ordinance, which would ensure that the construction-related impacts due to fugitive dust would be less than significant.

Estimated emissions of criteria air pollutants indicate that average daily construction emissions of PM<sub>10</sub> and PM<sub>2.5</sub> would be below the applicable thresholds. Emissions of ROG and NO<sub>x</sub>, however, would exceed the applicable significance thresholds. Implementation of Mitigation Measure M-AQ-1: Construction Emissions Minimization would reduce ROG and NO<sub>x</sub> emissions, but additional implementation of Mitigation Measure M-AQ-2b: Emission Offsets would be further required to reduce NO<sub>x</sub> emissions to below the applicable threshold. However, because implementation of emissions offsets is dependent in part on the actions of a third party and a specific emission offset project has not yet been identified, this measure is not fully within the control of the Project Sponsor. As such, the impact related to regional emissions of criteria pollutants during construction is conservatively considered significant and unavoidable with mitigation.

#### **Mitigation Measure M-AQ-1: Construction Emissions Minimization**

#### **2. Impact AQ-2: Impacts of Criteria Air Pollutants from Project Operations.**

(GSW DSEIR p. 5.4-37, FSEIR, Chapter 12, Section 12.2.1; Response AQ-1; Response AQ-4; Response AQ-6; Response AQ-7.) Operation of the Project would include a variety of sources that would contribute to long term emissions of criteria air pollutants (ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>). These sources would include new vehicle trips, maintenance and operation of standby diesel generators, boilers, and area sources such as landscape equipment and use of consumer products. Calculations of average daily and maximum annual emissions indicate that the Project without mitigation would result in levels of ROG and NO<sub>x</sub> that would exceed significance thresholds; this would be a significant impact. Mitigation Measures M-AQ-2a: Reduce Operational Emissions, and Mitigation Measure M-AQ-2b: Emission Offsets would reduce the severity of the impact. However, this impact is conservatively considered significant and unavoidable with mitigation because implementation of an emissions offset project is dependent in part on



the actions of a third party and a specific emission offset project has not yet been identified, beyond the control of the Project Sponsor.

**Mitigation Measure M-AQ-2a: Reduce Operational Emissions**

**Mitigation Measure M-AQ-2b: Emission Offsets**

**Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts**

**Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events**

**IVA. SIGNIFICANT CUMULATIVE IMPACTS THAT CANNOT BE AVOIDED OR REDUCED TO A LESS-THAN-SIGNIFICANT LEVEL**

**A. Transportation and Circulation**

**1. Impact C-TR-2: Project Traffic Contribution to Cumulative Impacts at Multiple Intersections.** (GSW DSEIR p. 5.2-212; RTC, Response TR-2.) Overall, combined for all analysis peak hours, the Project would result in cumulative impacts, or contribute to 2040 cumulative impacts at the following 16 study intersections: King/Third Streets, King/Fourth Streets, King/Fifth Streets/I-280 ramps, Fifth/Harrison Streets/I-80 westbound off-ramp, Fifth/Bryant Streets/I-80 eastbound on-ramp, Third/Channel Streets, Fourth/Channel Streets, Seventh Street/Mission Bay Drive, Third/South Streets, Third/16th Streets, Fourth/16th Streets, Owens/16th Streets, Seventh/Mississippi/16th Streets, Illinois/Mariposa Streets, Mariposa Street/I-280 northbound off-ramp, and Third/Cesar Chavez Streets. As noted above, the Project would result in Project-specific impacts or contribute considerably to cumulative impacts at nine intersections during the weekday p.m. peak hour, and at the eight intersections during the Saturday evening peak hour. Implementation of Mitigation Measure M-TR-2a: Additional PCOs during Events, Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts, Mitigation Measure M-TR-11a: Additional PCOs During Overlapping Events, Mitigation Measure M-TR-11b: Participation in Ballpark/Mission Bay Transportation Coordinating Committee, and Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events would reduce the Project's contribution to cumulative impacts related to event-related traffic conditions; however, these impacts would remain significant and unavoidable with mitigation.

With implementation of the off-site parking facilities as part of Mitigation Measure M-TR-11c, the Project would also result in cumulative impacts, or contribute to 2040 cumulative impacts at 16 study intersections; however, significant traffic impacts would not occur at the intersections of Fourth/16th Streets or Mariposa Street/I-280 northbound off-ramp, and



instead would occur at the intersections of Pennsylvania/Cesar Chavez Streets/I-280 northbound off-ramp and Pennsylvania Street/I-280 southbound off-ramp. Therefore, the Project's contribution to this 2040 cumulative impacts would remain significant and unavoidable with mitigation.

**Mitigation Measure M-TR-2a: Additional PCOs during**

**Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts**

**Mitigation Measure M-TR-11a: Additional PCOs During Overlapping Events**

**Mitigation Measure M-TR-11b: Participation in Ballpark/Mission Bay Transportation Coordinating Committee**

**Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events**

**2. Impact C-TR-3: Project Traffic Contribution to Cumulative Impacts at Freeway Ramps.** (GSW DSEIR p. 5.2-220; RTC, Response TR-2.) The Project, in combination with past, present, and reasonably foreseeable development in San Francisco, would contribute considerably to cumulative traffic impacts at three freeway ramps (i.e., I-80 eastbound on-ramp at Fifth/Bryant Streets, I-80 westbound off-ramp at Fifth/Harrison Streets, and I-280 southbound on-ramp at Mariposa Street). Implementation of Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts and Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events would reduce the Project's contribution to cumulative impacts related to event-related traffic conditions but would not mitigate the contribution to less-than-significant levels. Therefore, the Project's contribution to cumulative impacts at the ramp locations is considered significant and unavoidable with mitigation.

**Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts**

**Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events**

**3. Impact C-TR-5: Project Traffic Contribution to Cumulative Impacts to Regional Transit.** (GSW DSEIR p. 5.2-226; RTC, Response TR-2.) The Project would result in significant cumulative transit impacts to regional transit. Implementation of Mitigation Measure M-TR-5a: Additional Caltrain Service, Mitigation Measure M-TR-5b: Additional North Bay Ferry and Bus Service, and Mitigation Measure M-TR-14:



Additional BART Service to the East Bay during Overlapping Events would reduce or minimize the severity of the capacity utilization exceedances for the regional transit service providers, although not to less than significant levels. Accordingly, the Project's cumulative impacts to regional transit capacity would remain significant and unavoidable with mitigation.

**Mitigation Measure M-TR-5a: Additional Caltrain Service**

**Mitigation Measure M-TR-5b: Additional North Bay Ferry and Bus Service**

**Mitigation Measure M-TR-14: Additional BART Service to the East Bay During Overlapping Events**

**B. Noise**

**1. Impact C-NO-2: Project Contribution to Cumulative Impacts on Crowd and Traffic Noise.** (GSW DSEIR p. 5.3-42; RTC, Response NOI-2b.) Operation of the Project would contribute to ambient noise levels in the Project vicinity. Cumulative increases in roadway traffic noise would be significant and unavoidable during events even with implementation of Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts and Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events. Therefore, this impact would be significant and unavoidable with mitigation.

**Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts**

**Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events**

**C. Air Quality**

**1. Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts.** (GSW DSEIR p. 5.4-55; FSEIR, Chapter 12, Sections 12.2.1, 12.2.3, 12.3.2; Response AQ-1; Response AQ-2; Response AQ-3; Response AQ-4; Response AQ-6; Response AQ-7.) The analysis of construction-related and operational criteria pollutant impacts (Impact AQ-1 and Impact AQ-2, respectively) assesses whether the Project would be considered to result in a cumulatively considerable contribution to regional and localized air quality impacts. Mitigation Measure M-AQ-1: Construction Emissions Minimization, Mitigation Measure M-AQ-2a: Reduce Operational Emissions, and Mitigation Measure M-AQ-2b: Emission Offsets would reduce the Project's contribution to the cumulative impact, although it cannot be certain that Project's contribution would be reduced to less than cumulatively considerable. Therefore, this impact would be significant and unavoidable with mitigation.



### **Mitigation Measure M-AQ-1: Construction Emissions Minimization**

### **Mitigation Measure M-AQ-2a: Reduce Operational Emissions**

### **Mitigation Measure M-AQ-2b: Emission Offsets**

## **D. Utilities and Service Systems**

**1. Impact C-UT-2: Wastewater Treatment Capacity** (GSW DSEIR p. 5.7-16; RTC, Response UTIL-3; Response UTIL-4; Response UTIL-5; Response UTIL-6.) The SFPUC has determined that the Project in combination with full build out of Mission Bay South would result in wastewater flows that could exceed the capacity of the Mariposa Pump Station and associated force mains and conveyance piping. Therefore, improvements to the Mariposa Pump Station and associated facilities would be required to accommodate the cumulative wastewater flows. While temporary or interim measures to accommodate the flows would not result in significant environmental effects because they would be operational or internal to the pump stations, construction of the permanent improvements could potentially result in significant environmental effects. Because specific plans and design for permanent pump station improvements and associated force mains and conveyance piping have not been finalized and CEQA environmental review has not been completed, it is not possible at this time to conclude whether impacts resulting from these improvements could be mitigated to a less than significant level. Furthermore, implementation of any improvements to the City's pump stations and force mains is outside of the Project Sponsor's control and there is uncertainty in timing as to when the SFPUC will be able to complete the necessary capacity improvements. Therefore, this would be a significant and unavoidable impact related to requiring construction of new wastewater facilities or the expansion of existing wastewater facilities in the Mariposa sub-basin the construction of which could cause significant environmental impacts, with no feasible mitigation available to the Project Sponsor.

Cumulative wastewater flows could also exceed the capacity of the Mission Bay Sanitary Pump Station, resulting in a significant impact related to construction and/or expansion of related wastewater facilities. However, the Project's contribution would not be cumulatively considerable (i.e., it would be less than significant) because the Mission Bay Sanitary Pump Station was designed to accommodate 0.29 mgd of wastewater flows from the project site, and the Project would discharge only 0.182 mgd to the pump station which would be within the remaining capacity at the pump station. Even so, for the reasons mentioned in the first paragraph above, impacts relating to the construction of expanded wastewater treatment capacity would be significant and unavoidable.

**2. Impact C-UT-4: Wastewater Demand** (GSW DSEIR p. 5.7-19; RTC, Response UTIL-5.) The SFPUC has determined that there is currently inadequate capacity to serve the Project's wastewater demand in combination with anticipated increased wastewater



flows from other projects (including UCSF's demand and other reasonably foreseeable development). The impact analysis determined that the Project's contribution to this impact would be cumulatively considerable, and therefore, this cumulative impact on the wastewater system was determined to be significant and unavoidable with mitigation. Implementation of Mitigation Measure M-C-UT-4, Fair Share Contribution for Pump Station Upgrades, would offset the Project's contribution to this impact. The measure would require the Project Sponsor to contribute its fair share to the SFPUC for the required improvements to the Mariposa Pump Stations and associated wastewater facilities. However, because the necessary improvements have not been completely defined and implementation of the improvements to the City's wastewater system is outside of the Project Sponsor's control, this impact would be significant and unavoidable with mitigation.

**Mitigation Measure M-C-UT-4: Fair Share Contribution for Mariposa Pump Station Upgrades**

## **V. EVALUATION OF ALTERNATIVES**

This section describes the Project as well as the Project alternatives (the "Alternatives") and the reasons for approving the Project and for rejecting the Alternatives. This section also outlines the project objectives and provides a context for understanding the reasons for selecting or rejecting alternatives.

CEQA mandates that an EIR evaluate a reasonable range of potentially feasible alternatives to a proposed Project or the Project location that would meet most of the project objectives while reducing or avoiding any of the significant environmental impacts of the proposed Project. CEQA requires that every EIR also evaluate a "No Project" alternative. Alternatives provide a basis of comparison to the Project in terms of their significant impacts and their effectiveness in meeting project objectives. This comparative analysis is used to consider reasonable, potentially feasible options for minimizing the significant environmental impacts of the Project.

After an extensive alternative screening and selection process, OCII selected three alternatives, in addition to the Project, to carry forward for detailed analysis in the GSW SEIR:

- Alternative A: No Project Alternative
- Alternative B: Reduced Intensity Alternative
- Alternative C: Off-site Alternative at Piers 30-32 and Seawall Lot 330

These alternatives adequately represent a range of potentially feasible alternatives to the Project as required under CEQA.

The GSW SEIR also analyzed two Project variants:

- Third Street Plaza Variant



- Muni UCSF/Mission Bay Station Variant

The GSW DSEIR noted that the Third Street Plaza Variant also served as an alternative to the Project because it would meet all of the project objectives and would lessen or avoid a significant environmental impact of the Project. Specifically, the Third Street Plaza Variant would lessen or avoid the Project's potential wind impacts, which the GSW DSEIR conservatively identified as significant and unavoidable with mitigation. After publication of the GSW DSEIR, the Project Sponsor identified minor refinements that have been incorporated into the Project that will reduce the Project's wind impacts to less than significant with mitigation. Therefore, because the Third Street Plaza Variant no longer lessens or avoids a significant environmental impact of the Project, it is now properly treated as a Project variant, and not a true alternative to the Project. As explained above, the environmental impacts of the Project and the Third Street Plaza Variant would be the same and the same mitigation measures would apply, except that no mitigation would be required to reduce wind impacts of the Third Street Plaza Variant to a less than significant level. As further explained above, OCII is approving the Project so either the Project or the Third Street Plaza Variant may be implemented by the Project Sponsor, at the sponsor's election.

The GSW FSEIR noted that the Muni UCSF/Mission Bay Station Variant would result in an incremental noise reduction at Hearst Tower, and therefore, an incremental reduction in the crowd noise impact identified in the GSW DSEIR as significant and unavoidable. Even with the incremental reduction, however, the Project could still result in a substantial increase in noise levels and the incremental reduction would not be sufficient to reduce the impact to a less-than-significant level. In any event, as explained above, the Muni UCSF/Mission Bay Station Variant has been incorporated into the Project approved by OCII and thus need not be discussed in this section.

#### **A. Reasons for Selection of the Project**

The Project will meet all of the Project Objectives identified above in Section IC, and will provide numerous public benefits as explained in greater detail in Section VI.

- 1. Construct a state-of-the-art multi-purpose event center in San Francisco that meets NBA requirements for sports facilities, can be used year-round for sporting events and entertainment and convention purposes with events ranging in capacity from approximately 3,000-18,500, and expands opportunities for the City's tourist, hotel and convention business.*

The Project includes the construction of a state-of-the-art multi-purpose event center in San Francisco that meets NBA requirements for sports facilities, can be used year-round for sporting events and entertainment and convention purposes with events ranging in capacity from approximately 3,000-18,500. Although the event center is one of the smallest venues used by



NBA basketball teams, it meets the NBA's requirements and will provide sufficient capacity to meet the market demand for Golden State Warriors basketball games. Further, the event center will provide sufficient capacity to accommodate a variety of desirable events, including other sporting events, small and large concerts and shows, conventions and conferences, and other family events. No similar-sized event center currently exists in San Francisco, so the construction of the event center will attract events to the City that cannot be accommodated by other venues. By providing a state-of-the-art event center that can accommodate a wide variety of small- and large-scale events, including Warriors basketball games, the Project will benefit City residents and expand opportunities for the City's tourist, hotel and convention business.

- 2. Provide sufficient complementary mixed-use development, including office and retail uses, to create a lively local and regional visitor-serving destination that is active year-round, promotes visitor activity and interest during times when the event center is not in use, provides amenities to visitors of the event center as well as the surrounding neighborhood, and allows for a financially feasible project.*

The Project provides sufficient complementary mixed-use development to create a lively local and regional visitor-serving destination that is active year-round. In addition to the event center, the Project includes a mix of office use, retail, and open space that will promote visitor activity and interest during times when the event center is not in use, and provide amenities to visitors of the event center as well as the surrounding neighborhood. The Project is also financially feasible for the Project Sponsor and will provide substantial tax revenue available for OCII to support the construction of affordable housing, parks and open space, and critical utility, water quality, and transportation infrastructure.

- 3. Develop a project that meets high-quality urban design and high-level sustainability standards.*

The Project meets high-quality urban design and high-level sustainability standards. The Project is designed to Leadership in Energy and Environmental Design ("LEED®") Gold standards and incorporates a variety of design features to provide energy and water conservation and efficiency, encourage alternative transportation, promote a healthy indoor environment, minimize waste, and maximize recycling opportunities.

- 4. Optimize public transit, pedestrian and bicycle access to the site by locating the project within walking distance to local and regional transit hubs, and adjacent to routes that provide safe and convenient access for pedestrians and bicycles.*

The Project is located in an urban infill area in Mission Bay, immediately adjacent to local transit stops and less than a mile from other regional transit resources, including Caltrain, Bay Area



Rapid Transit, AC Transit, Golden Gate Transit, other regional carriers. The Project will also implement a number of off-site roadway network and curb regulations, and transit network, pedestrian and bicycle network improvements in the project site vicinity, including roadway restriping, intersection signalization, on-street parking, new perimeter sidewalks, bicycle lanes, signage and other improvements.

Further, as part of the Project, the Project Sponsor prepared and will implement a TMP. The TMP is a management and operating plan to facilitate multimodal access at the event center during Project operation. The TMP includes various management strategies designed to reduce use of single-occupant vehicles and to increase the use of rideshare, transit, bicycle, and walking for trips to and from the project site.

5. *Provide adequate parking and vehicular access that meets NBA and project sponsor's reasonable needs for the event center and serves the needs of project visitors and employees, while encouraging the use of transit, bicycle, and other alternative modes of transportation.*

The Project provides adequate parking and vehicular access that meets NBA and the Project Sponsor's reasonable needs for the event center and serves the needs of Project visitors and employees, while encouraging the use of transit, bicycle, and other alternative modes of transportation.

6. *Provide the City with a world class performing arts venue of sufficient size to attract those events which currently bypass San Francisco due to lack of a world class 3,000-4,000 seat facility.*

The Project will provide the City with a world class performing arts venue of sufficient size to attract those events which currently bypass San Francisco due to the limited availability of such world class facilities. The City is currently unable to attract or accommodate certain events because there are no venues in the city with the flexibility for such small or large seating capacities that can accommodate such events. With the event center, the City will be able to accommodate such events, for which there is a high demand in the City.

7. *Develop a project that promotes environmental sustainability, transportation efficiency, greenhouse gas reduction, stormwater management using green technology, and job creation consistent with the objectives of the California Jobs and Economic Improvement Through Environmental Leadership Act (AB 900), as amended.*

The Project will promote environmental sustainability, transportation efficiency, greenhouse gas reduction, stormwater management using green technology, and job creation consistent with the



objectives of the California Jobs and Economic Improvement Through Environmental Leadership Act (AB 900), as amended.

The Project also meets the major redevelopment objectives of the Mission Bay South Redevelopment Plan. These major redevelopment objectives are also the primary objectives of the Mission Bay South Redevelopment Plan as set forth in the Mission Bay FSEIR. (GSW DSEIR, p. 3-4.)

1. Eliminating blighting influences and correcting environmental deficiencies in the Plan Area, including, but not limited to, abnormally high vacancies, abandoned buildings, incompatible land uses, depreciated or stagnant property values, and inadequate or deteriorated public improvements, facilities and utilities.
2. Retaining and promoting, within the City and County of San Francisco, academic and research activities associated with the University of California San Francisco ("UCSF"), which seeks to provide space for existing and new programs and consolidate academic and support units from many dispersed sites at a single major new site which can accommodate the 2,650,000 square foot program analyzed in the UCSF Long Range Development Plan.
3. Assembling land into parcels suitable for modern, integrated development with improved pedestrian and vehicular circulation in the Plan Area.
4. Replanning, redesigning and developing undeveloped and underdeveloped areas which are improperly utilized.
5. Providing flexibility in the development of the Plan Area to respond readily and appropriately to market conditions.
6. Providing opportunities for participation by owners in the redevelopment of their properties.
7. Strengthening the community's supply of housing by facilitating economically feasible, affordable housing through installation of needed site improvements and expansion and improvement of the housing supply by the construction of up to approximately 3,440 very low-, low- and moderate-income and market-rate units, including approximately 1,100 units of very low-, low- and moderate-income housing.
8. Strengthening the economic base of the Plan Area and the community by strengthening retail and other commercial functions in the Plan Area through the addition of up to



approximately 335,000 Leasable square feet of retail space and a hotel of up to 500 rooms and associated uses, depending on the amount of residential uses constructed in the Hotel land use district, and about 5,953,600 Leasable square feet of mixed office, research and development and light manufacturing uses.

9. Facilitating emerging commercial-industrial sectors including those expected to emerge or expand due to their proximity to the UCSF new site, such as research and development, bio-technical research, telecommunications, business service, multi-media services, and related light industrial, through improvement of transportation access to commercial and industrial areas, improvement of safety within the Plan Area, and the installation of needed site improvements to stimulate new commercial and industrial expansion, employment, and economic growth.
10. Facilitating public transit opportunities to and within the Plan Area to the extent feasible.
11. Providing land in an amount of approximately 41 acres for a variety of publicly accessible open spaces.
12. Achieving the objectives described above in the most expeditious manner feasible.

The Project is consistent with all of the above major redevelopment project objectives. The successful completion of the Plan Area is dependent on economically feasible land uses, such as the Project, that will provide the revenues to repay the bonded indebtedness used to build the public infrastructure for the area. The Project will improve underutilized blocks within the Plan Area and will provide substantial economic benefits within the Plan Area.

The area surrounding the Project has already been substantially built out with commercial, industrial and other uses. Construction of the Project would develop one of the few remaining vacant and under-utilized parcels in this area. In doing so, the Project would secure the Property, increase the diversity of uses in the area, contribute towards creating an attractive and interesting urban environment, and reduce the need for Plan Area residents and employees to drive to reach retail, food, and recreation resources. There are few existing retail, restaurant, and entertainment uses within the Plan Area; by including those uses, the Project would contribute vitality to Mission Bay's street life and activate its pedestrian realms, which would generally benefit Mission Bay including the employees, students, and visitors that use the UCSF campus.

Furthermore, the Project includes implementation of several improvements to the existing public transit network and open space near the Property. For example, the Project will provide expanded Mission Bay Transportation Management Association ("TMA") shuttle service to increase frequency of, and the number of stops offered by, the shuttle service in Mission Bay



South. These shuttle service improvements would be an integrated part of the Mission Bay TMA network and would continue to be free of charge for all residents and employees in Mission Bay, regardless of their origin or destination. The Project would enhance Plan Area open space through the creation of a substantial public plaza and creation of enhanced public views, including the elevated view terrace located on the Bayfront Terrace and overlooking the Bayfront Park and the Bay beyond. The Project would also draw many more members of the public to the Plan Area, allowing a greater number of people to experience and enjoy the Bay, the shoreline parks and the Mission Bay open space.

## **B. Environmentally Superior Alternative**

CEQA Guidelines section 15126.6 requires that each EIR identify the “environmentally superior alternative” among those considered. If the No Project Alternative is identified as environmentally superior, then the EIR must also identify the environmentally superior alternative among the other alternatives. (CEQA Guidelines, § 15126.6, subd. (e)(2).)

As discussed in the SEIR, Alternative A, the No Project, would result in substantially less severe environmental impacts than the Project. However, per CEQA Guidelines Section 15126.6, if the environmentally superior alternative is the “no project” alternative, an EIR shall also identify an environmentally superior alternative among the other alternatives. The three remaining alternatives consist of the Reduced Intensity Alternative, the Off-site Alternative at Piers 30-32 and Seawall Lot 330, and the Third Street Plaza Variant. As discussed more fully below, *infra* Section VC, the Reduced Intensity Alternatives would result in somewhat less severe environmental impacts than the Project, including transportation, noise, air quality, and wastewater demand; however, this alternative would not avoid or substantially lessen any of the significant and unavoidable impacts that were identified for the Project. The Off-site Alternative at Piers 30-32 and Seawall Lot 330 would more effectively avoid and substantially reduce the severity of a number of significant impacts related to noise, air quality, and utilities that were identified for the Project; however, this alternative would result in substantially more severe significant impacts related to noise, vibration, and air quality, and also introduce new significant and unavoidable adverse impacts related to transportation and biological resources that would not occur under the Project. The Third Street Plaza Variant would have all of the same significant impacts as the Project.

Therefore, overall, the Reduced Intensity Alternative is considered the environmentally superior alternative, because it would reduce the severity of adverse environmental effects across a broad range of environmental resources and would not result in any new significant environmental impacts. (See also GSW DSEIR, pp. 7-99 – 7-109, 8-1 – 8-14.)

## **C. SEIR Alternatives Rejected and Reasons for Rejection**



The OCII Commission rejects the Alternatives set forth in the FSEIR, and listed below, because the OCII Commission finds that there is substantial evidence, including evidence of economic, legal, social, technological, and other considerations described in this section and elsewhere in the record on these proceedings under CEQA Guidelines section 15091, subdivision (a)(3), that make the Alternatives infeasible. In making these determinations, OCII is aware that CEQA defines “feasibility” to mean “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, legal, and technological factors.” (Pub. Resources Code, § 21061.1; see also *Goleta II*, *supra*, 52 Cal.3d at p. 565.) OCII is also aware that under CEQA case law the concept of “feasibility” encompasses (i) the question of whether a particular alternative promotes the underlying goals and objectives of the project, and (ii) the question of whether an alternative is “desirable” from a policy standpoint to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal and technological factors. (See, e.g., *City of Del Mar*, *supra*, 133 Cal.App.3d at p. 417; *Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 715; *CNPS*, *supra*, 177 Cal.App.4th at p. 1001.)

### **1. Alternative A: No Project Alternative**

Under the No Project Alternative, the Golden State Warriors organization would not relocate to San Francisco, and Blocks 29-32 in the Mission Bay South Plan Area would not be developed with the event center and mixed-use development described in Section I. Instead, it is assumed that in the short term, the Warriors organization would exercise its option to stay in Oakland, and accordingly, the team would continue to play its home games at Oracle Arena and lease their management offices and practice facility at the Oakland Convention Center in Oakland. Oracle Arena, built in 1966 and remodeled in 1996, is the oldest facility still in use by the NBA. Therefore, under this alternative, it is likely that the Warriors organization would either build a new arena at its current location or relocate and build a new facility in the long term in the Bay Area or elsewhere.

Currently, there are no other development proposals pending at Blocks 29-32, but given its prime location, existing entitlement, and ongoing development on similar sites adjacent to or near to Blocks 29-32, it is reasonable to expect that development at Blocks 29-32 would occur in the foreseeable future. Thus, the No Project Alternative does not assume that the project site at Blocks 29-32 would remain under its current vacant conditions, but rather that the site would be developed. Consistent with CEQA Guidelines Section 15126.6, subdivision (e)(2), this scenario represents what is reasonably expected to occur in the foreseeable future if the Project were not approved, based on current plans, available infrastructure, and community services. Specifically, the No Project Alternative assumes that Blocks 29-32 would be developed with another mixed-use development project consistent with the restrictions and controls established in the Mission Bay South Redevelopment Plan and the South Design for Development.



For the purposes of the GSW DSEIR, a hypothetical development scenario was developed that conforms to the Mission Bay South Redevelopment Plan and associated Design for Development, which allows all building to be a maximum of 90 feet in height, except for one 160-foot high tower on Block 29. The No Project Alternative assumes that approximately 1,056,000 gross square feet ("gsf") of commercial/industrial plus 31,700 gsf of retail uses would be developed at Blocks 29-32, for a total of 1,087,700 gsf. There would be no event center. The commercial/industrial uses would presumably consist of office and research/development uses, with a 13-story, 160-foot tall office tower located on Block 29 along Third Street and varying heights of office mid-rise buildings, all less than 90 feet in height, throughout Blocks 29, 30, 31, and 32. One- to two-story retail uses would be located at the corner of Third and South Streets on Block 29 and along the re-aligned Terry A. Francois Boulevard on Block 30. There would be two, above-grade, five- to five-and-a-half-story parking structures, one on South Street and one on 16th Street, with 1,050 parking stalls on-site, plus 132 spaces off-site at the South Street garage, for a total of 1,182 spaces. It is assumed that publicly accessible open spaces would be provided amidst the office buildings. Possible future uses for this hypothetical development scenario could include biotech uses, UCSF-related uses, or a wide variety of private or public uses that are allowed as principle uses under the Mission Bay South Redevelopment Plan.

This scenario assumes that no further CEQA environmental review would be required beyond the Mission Bay FSEIR and that no amendments to the Mission Bay South Redevelopment Plan or Design for Development would be needed, although OCII would make a final determination as to the need for supplemental CEQA environmental review or minor changes to Mission Bay planning documents on a project-specific basis.

The No Project Alternative is rejected as infeasible for the following reasons:

(a) Environmental Impacts: The No Project Alternative would result in similar impacts to those disclosed in the Mission Bay FSEIR and would be subject to all mitigation measures identified in the Mission Bay FSEIR applicable to Blocks 29-32. Many impacts of the No Project Alternative would also be similar to those of the Project. This is because many of the impacts would result from the conversion of a vacant parcel at this same location to a fully developed City block, regardless of the type of the development, and the same or similar mitigation or improvement measures identified for the Project would apply to the No Project Alternative. As explained in the GSW DSEIR, however, the No Project Alternative would reduce or avoid numerous significant impacts of the Project. (GSW DSEIR, pp. 7-32 to 7-46.) Overall, the No Project Alternative would result in substantially less severe environmental impacts than the Project but would fail to meet the basic objectives of the Project, as explained below.

(b) Project Objectives: This alternative would not meet, or would substantially reduce the ability to meet, the project objectives identified in the GSW FSEIR. The No Project Alternative would fail to achieve the primary objective of the Project Sponsor of constructing a new multi-purpose event center and home court for the Golden State Warriors NBA basketball team that



can be used year-round for sporting events and entertainment and convention purposes with events ranging in capacity from approximately 3,000-18,500 and expands opportunities for the City's tourist, hotel and convention business. Further, this alternative would not optimize or provide public transit, pedestrian, parking, and vehicular and bicycle access to an event center, nor would it provide the City with a 3,000 to 4,000 seat performing arts venue. Lastly, because the No Project Alternative would substantially reduce the scale of development at the site, the alternative would be substantially less effective than the Project in meeting the Project objective to "[p]rovide sufficient complementary mixed-use development, including office and retail uses, to create a lively local and regional visitor-serving destination that is active year-round, promotes visitor activity and interest during times when the event center is not in use, provides amenities to visitors of the event center as well as the surrounding neighborhood, and allows for a financially feasible project." As explained below, the reduction in development would generate far less revenue that could be used for purposes such as funding affordable housing, parks and open space, and critical utility, water quality, and transportation infrastructure.

(c) Other Feasibility and Policy Considerations:

The No Project Alternative includes a substantially reduced amount of development compared to the Project, which would substantially reduce the amount of tax increment bonds available to support the construction of affordable housing, parks and open space, and critical utility, water quality, and transportation infrastructure. Specifically, the No Project Alternative assumes that approximately 1,056,000 gsf of commercial/industrial plus 31,700 gsf of retail uses would be developed at Blocks 29-32, for a total of 1,087,700 gsf. The Project, by comparison, includes a total of 1,955,000 gsf of development. The property tax base, and therefore the tax increment bonding capacity, is driven directly by the construction costs associated with each project, as well as assumptions about whether those buildings are sold at market value, or remain on the tax rolls at construction value. As explained in greater detail below, the OCII Commission finds that reducing the intensity of development at the site to the levels proposed under the Reduced Intensity Alternative would substantially reduce the tax increment bonds available to OCII. The No Project Alternative includes even less development than the Reduced Intensity Alternative (1,087,700 total gsf for the No Project Alternative compared to 1,548,000 total gsf under the Reduced Intensity Alternative). Therefore, the OCII Commission finds that the No Project Alternative would substantially reduce the amount of tax increment bonds available to support the construction of affordable housing, parks and open space, and critical utility, water quality, and transportation infrastructure. OCII considers this to be an undesirable policy outcome, and one that (as mentioned above) would not be as effective as the Project in meeting the objective to "[p]rovide sufficient complementary mixed-use development, including office and retail uses, to create a lively local and regional visitor-serving destination that is active year-round, promotes visitor activity and interest during times when the event center is not in use, provides amenities to visitors of the event center as well as the surrounding neighborhood, and allows for a financially feasible project."



The OCII Commission rejects the No Project Alternative on each of these grounds independently. The OCII Commission finds each of these reasons to be sufficient independent grounds for rejecting the No Project Alternative as infeasible.

## **2. Alternative B: Reduced Intensity Alternative**

The Reduced Intensity Alternative was designed to reduce transportation and construction-related impacts that were identified for the Project. This alternative is identical to the Project with respect to the event center's design and siting on Blocks 29-32, but the mixed use development of commercial-industrial-retail uses throughout the rest of the site would be reduced in scale by 40 percent. The office uses would be reduced from 580,000 to 373,000 gsf, retail uses would be reduced from 125,000 to 75,000 gsf, and on-site, subgrade parking reduced from 950 to 750 stalls. The total development would be reduced from 1,955,000 to 1,673,000 gsf, or a reduction of 282,000 gsf. Reducing the size of the event center was considered, but was determined not to be potentially feasible due to the current standards of the NBA for professional basketball games, the current market demand for season tickets, and the likelihood that reducing the size or scale of the event center would not avoid or lessen the significant and unavoidable transportation-related impacts.

In addition, there would be only one instead of two 160-foot-tall office towers; the tower at Third and 16th Streets would be lowered by seven floors, such that the height of this structure would be 55 feet instead of 160 feet. Retail uses would be reduced across the project site, with 5,000 gsf less at the South Street podium, 5,000 gsf less at the Gatehouse, 11,000 gsf less at the 16th Street podium, and 29,000 gsf less at the food hall complex at South Street and Terry A. Francois Boulevard. Like the Project, the same gatehouse would be located mid-block along Third Street, and vehicle access would be from South and 16th Streets. The area of open space would be the same as that for the Project (i.e. 3.2 acres).

Operations under the Reduced Intensity Alternative would be essentially the same as that for the Project. The event center operations would be identical, as described in the GSW DSEIR, Chapter 3, Table 3-3. Operations of the office and retail uses would be expected to be the same as for the Project, though reduced in scale commensurate with the reduced gross square footage of uses. For the purposes of this alternatives analysis, it is assumed that the Reduced Intensity Alternative would incorporate the same design standards, infrastructure improvements, and transportation management planning assumptions as those under the Project.

The Reduced Intensity Alternative is rejected as infeasible for the following reasons:

### **(a) Environmental Impacts:**

Impacts of the Reduced Intensity Alternative would be similar to those of the Project with respect to nearly all resource areas. This is because many of the impacts would result from the development of a vacant parcel with an event center and mixed-use development, regardless of



the size of the mixed-use development. And in all cases, the same mitigation or improvement measures identified for the Project would apply to the Reduced Intensity Alternative.

The Reduced Intensity Alternative would not avoid or substantially lessen any of the significant and unavoidable impacts that were identified for the Project. Nor would the Reduced Intensity Alternative result in any changes to the significance determinations identified for the Project, and all mitigation measures would apply to this alternative. However, the Reduced Intensity Alternative would have similar but slightly less severe significant impacts than the Project (i.e., the significance determination would be the same but the severity, magnitude and/or frequency of the impact would be notably less) with respect several resource areas, as explained in the GSW DSEIR. (GSW DSEIR, pp. 7-66 to 7-67.) Overall, the Reduced Intensity Alternative would not provide substantial environmental benefits in comparison to the Project.

(b) Project Objectives:

This alternative would not meet, or would substantially reduce the ability to meet, the project objectives identified in the GSW SEIR. Because the Reduced Intensity Alternative would include an event center identical to the Project, this alternative would meet the project objectives related to providing a venue for sporting events, entertainment, and convention purposes. However, because the Reduced Intensity Alternative would substantially reduce the scale of office development at the site, the alternative would be substantially less effective than the Project in meeting the Project objective to “[p]rovide sufficient complementary mixed-use development, including office and retail uses, to create a lively local and regional visitor-serving destination that is active year-round, promotes visitor activity and interest during times when the event center is not in use, provides amenities to visitors of the event center as well as the surrounding neighborhood, and allows for a financially feasible project.” As explained below, the reduction in office space would generate far less revenue that could be used for purposes such as funding affordable housing, parks and open space, and critical utility, water quality, and transportation infrastructure.

(c) Other Feasibility and Policy Considerations:

The Reduced Intensity Alternative would substantially jeopardize the economic feasibility of the Project and would reduce the economic benefits the Project will provide for the Mission Bay area, as well as the entire City. The components of the Project other than the event center, such as the office buildings and retail component, are critical to the Project’s overall economic model. The Reduced Intensity Alternative would reduce the overall size of the Project by reducing the non-event center components; the retail component of the Project would be reduced from 125,000 square feet to 75,000 and the non-GSW office component from 580,000 to 373,000, for a total reduction of 282,000 square feet. In addition, the on-site parking garage would be reduced from 950 to 750 spaces. The retail programming for the Project is necessary to provide an active and lively visitor-serving destination, and a sufficiently sized amount of retail is



necessary to ensure the attractiveness of the event center to prospective patrons. However, supporting the retail tenants on non-event days is an important factor in attracting and maintaining a vibrant retail tenant base. As a result, the office components of the Project will afford the retail proprietors the benefit of an on-site population of potential customers, even on days when the Event Center is not active. Thus, the significant reduction in the office component under the Reduced Intensity Alternative would necessarily result in a reduced potential customer base, thereby increasing the potential risk of any prospective retail tenant.<sup>5</sup> Consequently, the Reduced Intensity Alternative would not be as effective as the Project in meeting the objective to “[p]rovide sufficient complementary mixed-use development, including office and retail uses, to create a lively local and regional visitor-serving destination that is active year-round, promotes visitor activity and interest during times when the event center is not in use, provides amenities to visitors of the event center as well as the surrounding neighborhood, and allows for a financially feasible project.”

Furthermore, the Reduced Intensity Alternative would substantially reduce the tax increment bonds available to OCII to support the construction of affordable housing, parks and open space, and critical utility, water quality, and transportation infrastructure. Compared with the Project, the Reduced Intensity Alternative would lead to a reduction over the next 25 years of approximately \$45 million (\$11.7 million to the normal taxing entities, \$9 million to affordable housing, and \$24.3 million to parks and open space and infrastructure).<sup>6</sup>

It is anticipated that, because of immediate needs and contractual obligations, OCII will issue bonds against certain of these revenues to provide immediately available funds to advance goals around affordable housing and infrastructure, especially important in a growing community like Mission Bay. The potential financial consequences of going forward with the Reduced Density Alternative can be determined through a series of typical bonding assumptions (i.e., a 5% interest rate, 25 year amortization, full utilization of all revenue for debt service because debt service coverage is provided by AB1290 subordination, and reserves and issuance costs of approximately 8%). Applying these assumptions to the revenue from Reduced Intensity Alternative results in net proceeds from tax increment bonds sales being lowered by approximately \$13.49 million (\$3.64 million for affordable housing and \$9.85 million for parks and open space and infrastructure) compared with what would occur under the Project. In addition, due to the 2% annual growth (which is not used for debt service), another

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<sup>5</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015; Attachment – Golden State Warriors, LLC, Jennifer Cabalquinto, Memorandum, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015.

<sup>6</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015; Attachment - Mission Bay Development Group, Seth Hamalian, Letter to Clarke Miller, Re: Relative difference in property tax base and tax increment bonding capacity between the proposed project and a lower density alternative, October 13, 2015.



approximately \$7.3 million of direct increment (\$2 million for affordable housing and \$5.3 million for parks and open space and infrastructure) would also be lost compared with what would occur under the Project. These amounts of money foregone under the Reduced Intensity Alternative represents a conservative assessment and the actual amount of lost revenue would likely be much greater.<sup>7</sup> Thus, the OCII Commission finds that, compared to the Project, the Reduced Intensity Alternative would substantially reduce the tax increment bonds available to OCII to support the construction of affordable housing, parks and open space and critical utility, water quality and transportation infrastructure in the Mission Bay area. OCII considers this to be an undesirable policy outcome, and one that (as mentioned above) would not be as effective as the Project in meeting the objective to “[p]rovide sufficient complementary mixed-use development, including office and retail uses, to create a lively local and regional visitor-serving destination that is active year-round, promotes visitor activity and interest during times when the event center is not in use, provides amenities to visitors of the event center as well as the surrounding neighborhood, and allows for a financially feasible project.”

Further, the Reduced Intensity Alternative would reduce the ability to meet the long-term planning objectives for the Mission Bay area. As explained above, the Project will increase the diversity of uses in the area, contribute towards creating an attractive and interesting urban environment, and reduce the need for Plan Area residents and employees to drive to reach retail, food, and recreation resources. There are few existing retail and restaurant uses within the Plan Area; by including those uses, the Project would contribute vitality to Mission Bay’s street life and activate its pedestrian realms, which would generally benefit Mission Bay including the employees, students, and visitors that use the UCSF campus. The retail and office uses included in the Project would also draw many more members of the public to the Plan Area, allowing a greater number of people to experience and enjoy the Bay, the shoreline parks and the Mission Bay open space. Compared to the Project, the Reduced Intensity Alternative would reduce the ability to meet these redevelopment objectives of the Mission Bay South Redevelopment Plan.

The OCII Commission rejects the Reduced Intensity Alternative on each of these grounds independently. The OCII Commission finds each of these reasons to be sufficient independent grounds for rejecting the Reduced Intensity Alternative as infeasible.

### **3. Alternative C: Off-site Alternative at Piers 30-32 and Seawall Lot 330**

The Project Sponsor previously proposed to construct a multi-purpose event center, event hall, public open space, maritime uses, fire station, a parking facility, and visitor-serving retail and restaurant uses on Piers 30-32 along the San Francisco waterfront, south of the Bay Bridge, in

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<sup>7</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015; Attachment - Mission Bay Development Group, Seth Hamalian, Letter to Clarke Miller, Re: Relative difference in property tax base and tax increment bonding capacity between the proposed project and a lower density alternative, October 13, 2015.



conjunction with a residential and hotel mixed-use development across The Embarcadero on Seawall Lot 330. As described in the GSW DSEIR, this alternative would be essentially the same as that previous proposal, although without the formerly proposed fire station, since the San Francisco Fire Department has proceeded with a different plan for upgrading its waterfront facilities.

#### Site Description

Piers 30-32 and Seawall Lot 330 are located along The Embarcadero, between Bryant Street and Brannan Street, just south of the Bay Bridge, and within the jurisdictional boundary of the Port of San Francisco ("Port"). Piers 30-32 is an approximately 12.7-acre rectangular-shaped concrete pier structure that extends east from the bulkhead wharf into the San Francisco Bay. With the exception of Red's Java House, located on the northwest corner of the piers, Piers 30-32 have no existing on-deck structures and are used for surface parking and an occasional berthing location for cruise ships and other large vessels. Substantial areas of Piers 30-32 are in poor structural condition and can no longer safely support heavy loads such as trucks or large crowds. Seawall Lot 330 is an approximately 2.3-acre paved inland site, located directly across The Embarcadero from Piers 30-32, and currently operates as a surface parking lot. The site is within the City's Rincon Point-South Beach neighborhood adjacent to several existing residential uses. Piers 30-32 are within an area subject to the San Francisco Bay Conservation and Development Commission ("BCDC") San Francisco Waterfront Special Area Plan. In addition, Piers 30-32 are within the purview of the State Lands Commission as part of its stewardship of state-owned lands, waterways, and resources and subject to public trust considerations under the Burton Act.

#### Alternative Description

This alternative assumes the same design and programming as the Project Sponsor's previously-proposed project at this location, with the only exception being the removal of the fire house and associated San Francisco Fire Department facilities. The Off-site Alternative at Piers 30-32 and Seawall Lot 330 would have an event center on Piers 30-32 with the same basketball seating capacity as the Project (18,064 seats), totaling 694,944 gsf (including the GSW offices), plus an event hall covering 25,946 gsf. Also located on Piers 30-32, this off-site alternative would include about 90,000 gsf of retail/restaurant uses, 13,172 gsf for services, about 252,554 gsf for parking and loading, and 1,820 gsf for Red's Java House, for a total building area of about 1,078,436 gsf. The height of the event center would be 128 feet high, with seven arena levels, height of the retail buildings 32 to 58 feet, with 1 to 3 levels, and the parking would be 31 feet high, with 3 levels. Red's Java House would be relocated from its current location in the northwest corner of Piers 30-32 to near the southwest corner, and relocation would be conducted consistent with the Port of San Francisco Building Code requirements and the Secretary of the Interior's Standards for the Treatment of Historic Properties. Other proposed facilities on Piers 30-32 would include a water taxi dock, a "dolphin" berthing structure, and over seven acres of public open space on Piers 30-32. There would be 500 parking spaces at Piers 30-32. Vehicular



access would be at one midblock access point on The Embarcadero, between Bryant and Brannan Streets. Maritime uses include a water taxi dock on the north side and berthing for deep water vessels on the east side.

Seawall Lot 330 would be developed with a combination of residential, hotel, and retail uses (including restaurants and parking) and would be designed to architecturally connect to the development at Piers 30-32. A total of 534,890 gsf of building development is proposed at Seawall Lot 330, consisting of 208,844 gsf of residential, 178,406 gsf of hotel, 29,854 gsf of retail, 106,339 gsf parking, and 11,447 gsf of shared support areas. The development would include a four-story building (ground level plus three podium levels containing a combination of retail, residential, hotel and parking uses) above which a 13-story residential tower would be developed in the south portion of the site (i.e., 17 stories total) and a 7-story hotel tower in the north portion of the site. The tallest structure on Seawall Lot 330 would be the proposed residential tower, which would measure approximately 175 feet at its building rooftop. The hotel would consist of two building wings connected by a multi-level glass bridge, approximately 105 feet in height. The podium building would vary in height, ranging from 20 to 50 feet depending on location, and would incorporate rooftop open space areas. The Seawall Lot 330 development would contain multiple ground-level vehicular and pedestrian/bicycle access points to the site, and a pedestrian/bicycle pathway through the development connecting Main Street and The Embarcadero. A total of 259 vehicle parking spaces are proposed on Seawall Lot 330.

Operations under this alternative are assumed to be essentially the same as those of the Project at Mission Bay, with the same year-round schedule and types of events at the event center, and typical operational schedules for the hotel, residential, and retail uses.

Construction of the Off-site Alternative at Piers 30-32 and Seawall Lot 330 would require approximately 32 months for the entire development, about 6 months longer than the construction schedule for the Project. Unlike the Project, extensive in-water construction activities would be required in the vicinity of Piers 30-32 due to the seismic and structural upgrades to the pier structure that would be required. At or in the vicinity of Piers 30-32, construction activities would include: demolition of portions of the existing Piers 30-32 pier deck; removal and/or disconnection of existing pier piles; installation of new pier piles and reconstruction of the pier deck; dredging within a portion of the Pier 28-30 open water area; strengthening of the seawall and sections of the bulkhead wharf adjacent to Piers 30-32 along The Embarcadero promenade; construction of all above-deck Piers 30-32 development, including foundations, event center structure, retail buildings, parking and loading structure, and open space features; installation of associated on-site utilities; interior finishing, exterior hardscaping and landscaping improvements; installation of floating dock facilities along the north side of Piers 30-32; and installation of frontage improvements along The Embarcadero.

At Seawall Lot 330, construction activities would include: site demolition, clearing and excavation; pile installation and foundation construction; construction of all proposed Seawall



Lot 330 development, including podium structure and residential and hotel towers; installation of associated on-site utilities; interior finishing; exterior hardscaping and landscaping improvements; and installation of frontage improvements along The Embarcadero and Bryant and Beale Streets.

This alternative would require numerous federal and state permits and approvals, including approvals from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Services, National Marine Fisheries Service, California State Lands Commission, San Francisco Bay Conservation and Development Commission, and California Department of Fish and Wildlife. Local approvals would be required from the San Francisco Planning Commission, San Francisco Port Commission, and the San Francisco Board of Supervisors as well as the San Francisco voters.

It should be noted that this alternative includes a mix of uses different than that of the Project, including new residential and hotel uses and substantially fewer office uses. Because of these differences, this alternative would result in impacts that would not occur for the Project, particularly due to the residential uses. However, the program for this alternative is based on the previous proposal by the Project Sponsor for this site, and was determined to be the most viable mix of uses for this site at the time it was under active consideration.

Under the Off-site Alternative, development at Blocks 29-32 at Mission Bay would not be precluded. Development of the Off-site Alternative could occur concurrently with development of Blocks 29-32 per the Mission Bay Plan, potentially contributing to localized impacts at both sites.

The Off-site Alternative at Piers 30-32 and Seawall Lot 330 is rejected for the following reasons:

(a) Environmental Impacts:

The Off-site Alternative at Piers 30-32 and Seawall Lot 330 would avoid or lessen some of the impacts of the Project identified in the GSW FSEIR, but it would also result in different significant impacts — including significant and unavoidable impacts — that would not occur under the Project.

The Off-site Alternative would have slightly more severe impacts than were identified for the Project (i.e., impact determination would change from LS to LSM and would require implementation of additional mitigation measures not required for the Project) with respect to:

- Construction water quality impacts (Impact would change from LS to LSM. There would be greater potential for adverse effects on water quality to occur, as well as more complex mitigation requirements.)
- Water quality impacts associated with trash and littering (Impact would change from LS to LSM.)



The Off-site Alternative would have substantially more severe significant impacts than were identified for the Project (i.e., impact determination would change from LS or LSM to SU or SUM and would require implementation of additional and/or different mitigation measures not required for the Project) with respect to:

- Construction noise levels substantially higher than ambient levels, exceeding Federal Transit Administration (“FTA”) criterion for residential exposure to construction. (Impact would change from LS to SUM.)
- Construction vibration impacts exceeding thresholds for human annoyance at nearby sensitive receptors. (Impact would change from LS to SUM.)
- Cumulatively considerable contribution to construction noise and vibration impacts, assuming other construction activities in the vicinity were to overlap with the construction activities. (Impact would change from LSM to SUM.)
- Exposure of sensitive receptors to increased PM<sub>2.5</sub> concentrations and cancer risk from toxic air contaminant concentrations during construction and operation and associated contribution to cumulative impacts. (Impact would change from LSM to SUM.)

The Off-site Alternative would have different significant and unavoidable impacts that were not identified for the Project (i.e., new SU or SUM impact and would require implementation of different mitigation measures not required for the Project) with respect to:

- Traffic impacts at different intersections than those identified for the Project. The number of intersections with significant traffic impacts would increase, and these impacts would occur under a greater number of scenarios. Even though the Off-site Alternative would generate fewer vehicle trips than the Project, traffic impacts would be substantially greater due to its more central and congested location closer to downtown. (Impact would be SUM.)
- Construction noise impacts on special-status fish and marine mammals (Impact would be SUM.)

Overall, the Off-site Alternative at Piers 30-32 and Seawall Lot 330 would avoid and lessen several of the environmental impact identified for Project, but it would also result in new and different significant environmental impacts that would not occur under the Project.

(b) Project Objectives:

As described in the GSW DSEIR, the objectives for the proposed Event Center and Mixed-Use Development at Blocks 29-32 are intended to be consistent with the overall objectives of the Mission Bay Redevelopment Plan. (GSW DSEIR, pp. 3-4 – 3-5.) Development at Piers 30-32 and Seawall Lot 330 as proposed in the Off-Site Alternative would not achieve any of the



redevelopment objectives identified for the Mission Bay South Redevelopment Plan, which are described above in Section V.A. However, since it is assumed that an alternative development would occur at Blocks 29-32, it is assumed such development would achieve at least some of the redevelopment objectives identified for the Mission Bay South Redevelopment Plan. As discussed in the context of the No Project Alternative above, it is also reasonable to assume that such an alternative development on Blocks 29-32 would substantially reduce the scale of development at the site as compared to the Project, and, as a result, would be substantially less effective than the Project in meeting the redevelopment objectives relating to economic growth because the reduction in development would generate far less revenue that could be used for purposes such as funding affordable housing, parks and open space, and critical utility, water quality, and transportation infrastructure. Therefore, the OCII Commission finds that this alternative would substantially reduce the ability to meet the project objectives within the context of the overall objectives of the Mission Bay Redevelopment Plan.

(c) Other Feasibility and Policy Considerations:

There are numerous uncertainties with regard to the acquisition of all the necessary permits and approvals required for the Piers 30-32 and Seawall Lot 330 site, including permits from the U.S. Army Corps of Engineers, State Lands Commission, San Francisco Bay Conservation and Development Commission (“BCDC”), Port of San Francisco, and voter approval under Proposition B.

Piers 30-32 and SWL Lot 330 are both under the jurisdiction of the Port of San Francisco. The current height limits (which are unchanged from 2012) for those sites are 40 feet and 65-105, respectively. Proposition B, passed by the voters in 2014, requires that any height increase on property within the Port’s jurisdiction from the height limit that existed in June of 2014 must go to the San Francisco voters for approval. Consequently, in order for the proposed project to proceed at those locations, the first step in the entitlement process would be to seek and obtain a height reclassification of the sites at the ballot. Taking a height reclassification to the ballot requires the Project Sponsor wait until the next election, and in advance of that expend significant sums to draft the ballot measure, collect signatures to place it on the ballot, and campaign for its approval.<sup>8</sup>

After completing the height reclassification process (if successful), the project would then commence seeking project approvals, which would require analysis under the California Environmental Quality Act as well as the National Environmental Policy Act (“NEPA”) because the Army Corps of Engineers (a federal agency) has certain permitting authority over the piers. The work required to retrofit the existing piers, which are in poor condition, would be extremely expensive, costing over an estimated \$120 million, and would entail in-water work requiring

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<sup>8</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015.



certain mitigation measures to protect biological resources. Under the Burton Act, a state law that governs the Port's authority, the Port could not enter into a lease of more than 66 years in length; thus, the maximum term the arena could be leased would be 66 years. As a consequence, the extremely high costs of retrofitting the Piers in order to allow arena construction could only be amortized over a relatively short period of time, making the recovery of the capital costs of the project financially infeasible for the Project Sponsor. In addition, the mitigation measures required to protect biological resources would likely include limiting the months in which construction can occur, particularly in-water work in order to protect the resources. These mitigations serve to increase the construction times and risk.<sup>9</sup>

Finally, the time entailed in pursuing the required two-part entitlement process would take significantly longer than at a site not under the jurisdiction of the Port or subject to federal permitting for in-water construction. Piers 30-32 are also regulated by other state and regional agencies, in addition to the U.S. Army Corps of Engineers. The Project Sponsor's lease at its current location at Oracle Arena expires in 2017 and the Project Sponsor must make a definitive decision about the long-term venue for the team as quickly as possible as a result.<sup>10</sup> Presumably, the Project Sponsor initially anticipated all of the above-described challenges could potentially be overcome and the Event Center at the Piers 30-32 and Seawall Lot 330 site could have been developed in a successful manner within a reasonable period of time. (*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 600 ["No proponent, whether wealthy or not, is likely to proceed with a project that will not be economically successful."].) However, as of today, in consideration of the circumstances surrounding the Project, including the Project Sponsor's goal of constructing a new NBA Arena in time for the 2018-2019 NBA season, the OCII Commission finds that these uncertainties, combined with other factors, make the alternative infeasible.

Furthermore, development must occur within the Plan Area to further any of the Mission Bay South Redevelopment Plan redevelopment objectives. Piers 30-32 and Seawall Lot 330 are not located within the Plan Area. Therefore, the Off-Site Alternative does not further any of the Mission Bay South Redevelopment Plan redevelopment objectives. Even if, as noted above, an alternative mixed use development project was assumed to be proposed and ultimately developed on the project site in the future if the Off-Site Alternative was selected, OCII finds that such an alternative development on the project site would likely be substantially smaller in scale as compared to the Project, and, as a result, would be substantially less effective than the Project in meeting the redevelopment objectives relating to economic growth because the reduction in development would generate far less revenue that could be used for purposes such as funding affordable housing, parks and open space, and critical utility, water quality, and transportation

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<sup>9</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015.

<sup>10</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015.



infrastructure. Additionally, one of the major Mission Bay South Redevelopment Plan redevelopment objectives is to successfully complete the Mission Bay South Redevelopment Plan “in the most expeditious manner feasible.” Approving the Off-Site Alternative and assuming an alternative development project would be proposed on the project site in the immediate future would not further the goal to successfully complete the Mission Bay South Redevelopment Plan “in the most expeditious manner feasible.” Therefore, the OCII Commission finds that approval of the Off-site Alternative would not further the Mission Bay South Redevelopment Plan redevelopment objectives. The OCII Commission rejects the Off-site Alternative at Piers 30-32 and Seawall Lot 330 on each of these grounds both collectively and independently. The OCII Commission finds each of these reasons sufficient independent grounds for rejecting the Off-site Alternative at Piers 30-32 and Seawall Lot 330 as infeasible.

#### **D. Alternatives Considered but Rejected from Further Consideration**

##### Alternative Locations

The DSEIR explains that eleven additional alternative locations for the Project were considered but rejected because they either would not achieve most of the basic project objectives, would not reduce or avoid significant environmental Project impacts, and/or do not represent potentially feasible alternatives for other economic, social, or environmental reasons. (GSW DSEIR, section 7.5, pp., 713 through 7-14 and 7-110 through 7-116.) The OCII Commission finds each of these reasons sufficient independent grounds for rejecting these alternative locations as infeasible.

##### Alternative Locations Proposed After Publication of the GSW DSEIR

Subsequent to publication of the GSW DSEIR and after the end of the public comment period on the GSW DSEIR, a potential alternative site for the Project – near Pier 80 – proposed by a group called the Mission Bay Alliance (“MBA”), was brought to light through local media (“MBA Alternative Site”). MBA subsequently presented the MBA Alternative Site to OCII in a comment letter on October 13, 2015, which was more than two and one half months after the public comment period on the GSW DSEIR had closed. The MBA Alternative Site is an approximately 21-acre site bounded by Cesar Chavez Street, Islais Creek Channel, and Interstate 280. Although this potential site was not presented to OCII until late in the environmental review process, it has been thoroughly vetted and is not considered a feasible option.

First, it should be noted that a similar site is described in the GSW DSEIR. Among the alternative locations that were considered for inclusion in the GSW DSEIR but ultimately rejected was the so-called Pier 80 or India Basin Area, located very close to the newly proposed MBA Alternative Site. The OCII Commission finds each of the reasons provided in the FSEIR for rejecting the Pier 80 or India Basin Site provides sufficient independent grounds for also rejecting the MBA Alternative Site as infeasible.



In any event, the OCII Commission finds that the MBA Alternative Site is not a feasible option for the following additional reasons.

The MBA Alternative Site consists of approximately 12 separate lots located across the street from Pier 80 in San Francisco. About half of the parcels appear to be held by 3-4 different private parties; the other, larger lots are controlled by the City and the Port of San Francisco.<sup>11</sup> The SFMTA currently operates a bus acceptance facility at the Port property located at 1399 Marin Street. The SMFTA owns the property at 1301 Cesar Chavez Street, where it operates and is currently expanding its Islais Creek Motor Coach Facility. This facility has been in the planning and acquisition stages since 1990 and once completed, will be among the SFMTA's largest facilities. Furthermore, SFMTA also recently began construction on a maintenance and operations building at the southeast corner of the site, which once completed, will be used to store and service buses and include administrative offices and a community meeting space. SFMTA considers these properties to be "critical" to its mission. The Project Sponsor does not control or own the publicly or privately owned sites and no evidence suggests it would be feasible for the Project Sponsor to acquire such rights.

The parcels located across from Pier 80 are zoned PDR-2 and have heights ranging from 40 feet to 68 feet. The PDR-2 zoning would not allow the office buildings. In contrast to the allowed heights, the proposed Event Center would be 135 feet in height and the office and retail buildings would be 160 feet in height. Thus, the development would not be permitted without approval of ordinances rezoning the permitted uses and height limits in the Planning Code and the Height Maps in order to accommodate the proposed Event Center and office buildings. In the case of the Port property, any increase in height limit would require voter approval due to the passage of Proposition B by the voters in 2014, which requires voter approval for any height increase on Port property.

The MBA Alternative Site would not avoid significant impacts of the Project, and would have more severe transportation, air quality, hydrology and water quality impacts.

Access to this location would require a greater proportion of event attendees to travel by auto, as local and regional transit service in the site's vicinity is limited, and the site is located further from locations accessible via bicycle and walk modes. The T Third light rail line is the primary Muni light rail route that would serve the site. The 19 Polk Muni bus route, with a connection at Evans/Connecticut Streets, runs north to Market Street and connects with the Civic Center BART station, but has limited service during the weekday and Saturday evening and late evening peak periods. The closest BART station is at 24th Street and Mission Street, approximately two miles to the west. The closest Caltrain station is at 22nd Street, under the I-280 freeway, approximately two-thirds of a mile to the north. It offers less train service (fewer trains stop there) than the Caltrain station at Fourth/King Streets, as it is an intermediate station, as opposed to the line terminal at Fourth/King Streets. Due to its remote location, this site would not meet

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<sup>11</sup> Sally Oerth, OCII, and Chris Kern, SF Planning Department, Letter to Tiffany Bohee, Re: Proposed Alternative at Pier 80, October 23, 2015.



the project objectives to locate the Event Center within walking distance to local and regional transit hubs.

Unlike the project site, the MBA Alternative Site is located in an Air Pollution Exposure Zone. Consequently, this site would likely result in substantially more severe air quality health risk impacts than the Project. The MBA Alternative Site is located directly adjacent to the Islais Creek Channel, and thus would have a greater potential to result in adverse impacts on water quality and aquatic resources due to stormwater runoff into the Bay during both project construction and operation. The MBA Alternative Site is also located within the 100-year flood zone, and accordingly, locating the project here would expose people and structures to a greater risk of loss, injury or death due to flooding than the proposed location outside of the 100-year flood zone. Moreover, because it is directly adjacent to the Islais Creek Channel and is at a low elevation relative to sea level, the MBA Alternative Site would be more vulnerable to flooding in the future due to sea level rise and is more vulnerable to tsunami risk than the project site.<sup>12</sup>

In consideration of SFMTA's active and expanding use and development on a portion of the MBA Alternative Site, the number of private lots included as part of the site (none of which are owned or in the control of the Project Proponent), and the other considerations discussed above, the OCII Commission finds that the MBA Alternative Site could not be assembled in a successful manner within a reasonable period of time taking into account existing development on the site as well as economic, legal, and environmental factors. The OCII Commission finds each of these reasons sufficient independent grounds for rejecting this alternative location.

#### Alternative Concepts, Designs, and Strategies

In developing the alternatives selected for detailed analysis in the GSW DSEIR, and throughout the environmental review process, OCII, with the assistance of the Planning Department, considered additional alternative concepts, designs, and strategies that could potentially avoid or lessen the Project's environmental impacts. In some cases, the alternative concepts were incorporated into the Reduced Intensity Alternative analyzed in the GSW DSEIR or into the mitigation measures proposed for the Project. In other cases, however, alternative concepts were determined to either be infeasible or to result in the same or more severe environmental impacts compared to those of the Project, and therefore were not included in the range of alternatives carried forward for full analysis. The reasons the alternative concepts, designs, and strategies are rejected are described below.

#### Alternative Strategy to Reduce Size/Scale of the Event Center

The size and scale of the event center is currently designed to meet the primary objective of meeting the NBA requirements for sports facilities, and specifically for use as the home court for the Golden State Warriors basketball team. The capacity of 18,064 seats is over 1,000 fewer

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<sup>12</sup> Sally Oerth, OCII, and Chris Kern, SF Planning Department, Letter to Tiffany Bohee, Re: Proposed Alternative at Pier 80, October 23, 2015.



seats than the average capacity of all current NBA facilities. The 18,064-seat capacity is also well below the capacity of the Warriors' current home court at the Oracle Arena in Oakland.<sup>13</sup> However, while the event center is designed to meet the specific needs for NBA basketball games, it is also designed on balance to achieve the overall project objectives of providing a year-round venue for a variety of sporting events, entertainment, and convention purposes that promotes environmental sustainability, transportation efficiency, greenhouse gas reduction, and job creation.

The 18,064-seat capacity will be the fifth lowest capacity in the NBA, despite the high current market demand for season tickets. Currently, the Warriors have 14,500 season ticket holders and there are over 17,000 people on the waiting list for season tickets. Therefore, the Project Sponsor has indicated that reducing the capacity of the event center below 18,064 is not feasible due to its already small size relative to other NBA facilities and the overwhelming market demand for season tickets.<sup>14</sup>

A reduced size event center would also not meet the project objective of constructing an event center that can be used year-round for sporting events and entertainment and convention purposes with events ranging in capacity from approximately 3,000-18,500, and expands opportunities for the City's tourist, hotel and convention business.

The viability of attracting top entertainment events, including large touring shows, is influenced primarily by the buildings' gross potential and secondarily by the venues' ability to support large event requirements/logistics such as rigging, space requirements, power, data, lighting and sound. Today's concerts typically tour with 12 to 24 tractor-trailers of equipment, requiring a venue that not only has the infrastructure to mount a 200,000 lb show but is able to compete economically with other markets to attract these type of events to the market. The business model for these events is impacted dramatically by potential attendance, and therefore, most large-scale entertainment events could not occur at the event center if the capacity is reduced below 18,500. Therefore, reducing the capacity of the event center below 18,500 would deprive City residents the opportunity to attend these types of events in the City and would substantially reduce opportunities for the City's tourist, hotel and convention business.<sup>15</sup>

Moreover, the City of San Francisco currently lacks a public venue that can compete for "arena" type entertainment attractions. The lack of a state-of-the-art arena venue in the City prevents top

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<sup>13</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015

<sup>14</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015

<sup>15</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015; Attachment - Stephen Collins, Memorandum Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015.



domestic and international music tours, political conventions, major award shows, athletic tournaments, family shows and a variety of other entertainment and sporting events from taking place in San Francisco. The existing venues in San Francisco cannot support these needs and, as a result, over a hundred of the top tours and attractions are currently unable to perform in the City. And there is currently a high market demand for these types of events in the City. The market demand for such attractions in San Francisco is demonstrated by the high demand for similar venues on the Peninsula, such as Levi's stadium, the Shoreline Amphitheatre and HP Pavilion, as well as the existing Oracle Arena.<sup>16</sup>

Furthermore, as described above, most of the event center-related impacts could be mitigated with the adopted mitigation measures, and it is unlikely that reducing the size/scale of the event center could effectively or substantially lessen the Project's significant transportation-related impacts.

Detailed traffic modeling of a smaller event center has not been performed. For this reason, it is not possible to determine exactly how small the event center would need to be in order to avoid some or all of the Project's significant and unavoidable traffic impacts. Based on the modeling that has been performed, however, a smaller event center could potentially result in significant impacts at fewer intersections; but, as indicated by the modeling conducted for the No Event scenario, even a substantially smaller Event Center would result in significant and unavoidable traffic impacts including at the intersection of 16th/Seventh/Mississippi Streets. Thus, even a substantially smaller event center than the 18,500-seat event center would still have significant and unavoidable traffic impacts, would not meet NBA standards for an arena, and would not meet the basic project objectives. As a result, this alternative strategy would not effectively avoid or substantially lessen transportation-related impacts. Thus, reducing the size and scale of the event center was screened from further consideration for detailed alternatives analysis. It should be noted, however, that reducing the size of Project features other than the event center were included under the Reduced Intensity Alternative, which is analyzed in the GSW DSEIR.

The OCII Commission finds each of these reasons sufficient independent grounds for rejecting this alternative strategy.

Alternative Strategy to Reduce Number of Events at the Event Center that Would Overlap with SF Giants Games at AT&T Park.

As explained in the GSW FSEIR, it is estimated that there would be a potential for about 32 overlapping events per year, but in rare circumstances there could be as many as 40 events (with varying combined total attendance) in one year. These estimates are based on the following

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<sup>16</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015; Attachment - Stephen Collins, Memorandum Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015.



assumptions, which are conservative because they rely on current scheduling information and do not account for any advanced coordination between the SF Giants and the Golden State Warriors, or internal schedule coordination at the event center:

- Overlap with Golden State Warriors games. The regular NBA (late October through mid-April) and regular baseball seasons (April through September) overlap slightly in the first half of April, and for both teams, only half of the games are home games. Conservatively, about 2 games per year could overlap during the regular season. If either or both of the Warriors and SF Giants were to move on to the post season, there would be increased likelihood of overlapping events, with up to approximately five additional overlapping events if both teams were to advance to their respective championship final series in the same year.
- Overlap with concerts. As indicated in Chapter 3, Project Description, Table 3-3, the major concert season is fall, winter, and early spring. Thus, of the 45 yearly concerts, about 20 could overlap with the regular baseball season, but at most, only half of these (10) are estimated to occur on the same day as a SF Giants home game.
- Overlap with family shows. As indicated in Chapter 3, Project Description, Table 3-3, the approximate 55 family shows would be distributed throughout the year on Wednesday through Sunday. Since the SF Giants play for six months of the year during the regular season, it is assumed that half of the family shows (27) would occur during the baseball season (April through September), but the SF Giants only play home games at AT&T Park for half of that time, leaving 14 days of possible overlap. However, the SF Giants also play games on Monday and Tuesday when there would be no family shows. So about 10 of the family shows are estimated to occur on the same day as a SF Giants home game.
- Overlap with other non-Golden State Warriors sporting events. Of the approximate 30 other non-Golden State Warriors sporting events that would be held at the event center, it is assumed that half could occur during baseball season, and half of those could overlap with SF Giants home games, or about 7 events.
- Overlap with conventions/corporate events. Of the approximate 31 conventions or corporate events, it is assumed that half could occur during baseball season, and half of those could overlap with SF Giants home games. However, these events would almost exclusively be during the day, and only about 35 percent of the SF Giants games are day games; this indicates the potential for an estimated 3 overlapping events.

Based on league schedules and concert scheduling as described in the GSW FSEIR, it is anticipated that in a regular year, on average, there is a possibility of about nine large events



(about 12,500 or more attendees) at the event center overlapping with a SF Giants evening game at AT&T Park (i.e., two basketball games and seven concerts) annually. If either or both teams make it to their respective championships, the number of large events overlapping could moderately increase; however, it is unlikely that this scenario would occur on a regular basis.

The OCII Commission has considered whether there are feasible strategies to further reduce the number of events at the event center that would overlap with SF Giants games at AT&T Park in an effort to reduce potential environmental impacts. For the following reasons, however, the OCII Commission finds that it is not feasible to reduce the number of overlapping events.

First, the NBA schedule, and therefore, the Warriors schedule is beyond the Project Sponsor's and OCII's control. Similarly, the Major League Baseball ("MLB") schedule, and therefore, the SF Giants schedule is also beyond the Project Sponsor's and OCII's control. In other words, because neither the lead agency or responsible agencies nor the Project Sponsor has any control over MLB or NBA schedules, it is not possible to reduce the number of Warriors basketball games that overlap with SF Giants baseball games at AT&T Park.

Second, there is no feasible strategy to reduce the number of concerts, family shows, or conventions/corporate events at the event center that would overlap with SF Giants Games at AT&T Park. The financial model of most venues, such as the event center, is predicated on programming the venue for a variety of shows and events over the course of the year. The costs of developing and constructing a new event venue, or even the more limited costs of rehabilitating an existing venue, demand that the venue be utilized throughout the year in order to most effectively amortize the costs of the facility. In other words, the event center must host year-round events because the business model (particularly where the venue is privately financed) demands year-round revenue to be economically successful.<sup>17</sup> Therefore, it is not feasible to prohibit events at the event center during the SF Giants baseball season. Moreover, prohibiting events during the SF Giants baseball season would be inconsistent with the overall Project purpose of constructing an event center that can be used year-round for sporting events and entertainment and convention purposes.

Third, shifting of event start times for most entertainment attractions can be difficult or impossible, particularly without sufficient advance notice of the need to make such a request. The difficulty in doing such is driven primarily by the requirements of the client (tour management), which falls outside the control of the promoter or the venue operator. Most arena events are routed months and sometimes more than a year in advance. The event is designed in almost all circumstances to be able to play the venue in a single day (load-in, show, load-out). The tour maintains an extremely regimented schedule for all venues played across the country

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<sup>17</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015; Attachment – Golden State Warriors, LLC, Jennifer Cabalquinto, Memorandum, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015.



and internationally in order to efficiently and effectively move the show from venue to venue, which can include dozens of tractor trailers, tour buses, and support vehicles. It is very common for the show to load-out in one city and travel a significant distance, in some cases hundreds of miles, in order to load-in in another city the next morning. The artists' travel arrangements, as well as the logistics to move the show from city to city, are carefully choreographed, which makes it extremely difficult to alter any schedules, including show start times. Similar circumstances apply to moving a show date. The tours are routed as much as a year in advance.<sup>18</sup>

Any requirements that would necessitate that shows move to alternate dates would in almost all circumstances result in an event cancellation as the tour and artists' schedule and logistics could not absorb such a move due to the ongoing commitments of the tour. As a consequence, while some staggering of start times may at times be possible with sufficient advance notice, there are practical, industry-driven limits on how often one could successfully negotiate staggered start times. In short, there is an inherent degree of temporal inflexibility built into the industry model for road shows. Thus, to be able to attract and accommodate the type of events that are both desirable and financially necessary for the Project, it is not possible to prohibit events from occurring at the event center during times that might overlap with an SF Giants game at AT&T Park.<sup>19</sup>

Additionally, reducing the number of events that might overlap with an SF Giants game at AT&T Park would not decrease magnitude of the Project's traffic impacts on days when overlapping events occur. Therefore, a reduction in overlapping events would not effectively avoid or substantially lessen the magnitude of the Project's transportation-related impacts identified in the FSEIR. Furthermore, the OCII Commission finds that a limit on overlapping events is infeasible from an economic and policy perspective because a restriction, such as an overlapping event restriction, that results in a reduction in the number of events held at the Event Center annually would directly impact the public revenues generated by events held at the Event Center that could be used for purposes such as funding affordable housing, parks and open space, and critical utility, water quality, and transportation infrastructure.

The OCII Commission finds each of these reasons sufficient independent grounds for rejecting this alternative strategy.

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<sup>18</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015; Attachment - Stephen Collins, Memorandum Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015.

<sup>19</sup> GSW Arena LLC, Rick Welts, Letter to Tiffany Bohee, Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015; Attachment - Stephen Collins, Memorandum Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32, October 23, 2015.



## **VI. STATEMENT OF OVERRIDING CONSIDERATIONS**

Pursuant to CEQA section 21081, subdivision (b), and CEQA Guideline 15093, the OCII Commission hereby finds, after consideration of the FSEIR and all other evidence in the record, that each of the specific overriding economic, legal, social, technological and other benefits of the Project as set forth below independently and collectively outweighs the significant and unavoidable impacts of the Project and is an overriding consideration warranting approval of the Project. Any one of the reasons for approval cited below is sufficient to justify approval of the Project. Thus, even if a court were to conclude that not every reason is supported by substantial evidence, the OCII Commission will stand by its determination that each individual reason is sufficient. The substantial evidence supporting the various benefits can be found in the preceding findings, which are incorporated by reference into this Section, and in the documents found in the Record of Proceedings, as defined in Section I.

On the basis of the above findings and the substantial evidence in the whole record of this proceeding, the OCII Commission specifically finds that there are significant benefits of the Project to support approval of the Project in spite of the unavoidable significant impacts, and therefore makes this Statement of Overriding Considerations. The OCII Commission further finds that, as part of the process of obtaining Project approval, all significant effects on the environment from implementation of the Project have been eliminated or substantially lessened where, and to the extent, feasible. All mitigation measures proposed in the FSEIR that are applicable to the Project are adopted as part of this approval action. Furthermore, the OCII Commission has determined that any remaining significant effects on the environment found to be unavoidable are acceptable due to the following specific overriding economic, technical, legal, social and other considerations.

The Project has the following benefits:

- The Project includes the construction of a state-of-the-art multi-purpose event center in San Francisco that meets NBA requirements for sports facilities and can be used year-round for sporting events and entertainment and convention purposes with events ranging in capacity from approximately 3,000-18,500. Although the event center is one of the smallest venues used by NBA basketball teams, it meets the NBA's requirements and will provide sufficient capacity to meet the market demand for Golden State Warriors basketball games. Further, the event center will provide sufficient capacity to accommodate a variety of desirable events, including other sporting events, small and large concerts and shows, conventions and conferences, and other family events. No similar-sized event center currently exists in San Francisco, so the construction of the event center will attract events to the City that cannot be accommodated by other venues. By providing a state-of-the-art event center that can accommodate a wide variety of small- and large-scale events, including Warriors basketball games, the Project will



benefit City residents and expand opportunities for the City's tourist, hotel and convention business.

- The Project provides sufficient complementary mixed-use development to create a lively local and regional visitor-serving destination that is active year-round. In addition to the event center, the Project includes a mix of office use, retail, and open space that will promote visitor activity and interest during times when the event center is not in use, and provide amenities to visitors of the event center as well as the surrounding neighborhood.
- The Project meets high-quality urban design and high-level sustainability standards. The Project is designed to LEED® Gold standards and incorporates a variety of design features to provide energy and water conservation and efficiency, encourage alternative transportation, promote a healthy indoor environment, minimize waste, and maximize recycling opportunities.
- The Project is located in an urban infill area in Mission Bay, immediately adjacent to local transit stops and less than a mile from other regional transit resources, including train and ferry and therefore will promote public transit and further the City's Transit First Policy. The Project will also implement a number of off-site roadway network and curb regulations, transit network, pedestrian and bicycle network improvements in the project site vicinity, including roadway restriping, intersection signalization, on-street parking, new perimeter sidewalks, bicycle lanes, signage and other improvements, that will substantially benefit the community.
- The Project will provide the City with a world class performing arts venue of sufficient size to attract those events which currently bypass San Francisco due to the current lack of a world class facility in the City. The City is currently unable to attract or accommodate certain events because there are no venues in the city that can accommodate such events. With the event center, however, the City will be able to accommodate such events, for which there is a high demand in the City.
- The Project will promote environmental sustainability, transportation efficiency, greenhouse gas reduction, stormwater management using green technology, and job creation consistent with the objectives of the California Jobs and Economic Improvement Through Environmental Leadership Act (AB 900), as amended.
- The Project will provide substantial tax revenue available to support the construction of affordable housing, parks and open space, and critical utility, water quality, and transportation infrastructure.



- The Project will generate thousands of jobs for residents of Mission Bay and the City of San Francisco area during both construction and operation.

In summary, the development and revitalization of the Mission Bay area and the betterment of the quality of life for the residents of this community is one of OCII's highest priorities. Having considered these benefits, the OCII Commission finds that the benefits of the Project outweigh the unavoidable adverse environmental effects, and that the adverse environmental effects are therefore acceptable.



# Mitigation Monitoring and Reporting Program

## SECTION 1: AUTHORITY

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared pursuant to Section 21081.6 of the *California Environmental Quality Act*, known as CEQA (Public Resources Code Section 21000 et seq.), to provide for the monitoring of mitigation measures required for the Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 (Project), as set forth in the Final Subsequent Environmental Impact Report (Final SEIR) prepared for the Project. This report will be kept on file at the Office of Community Investment and Infrastructure (OCII), One South Van Ness Avenue, Fifth Floor, San Francisco, CA, 94103 and at the City Planning Department (City), 1650 Mission Street, Fourth Floor, San Francisco, CA, 94103.

As described in Section 15097 of the *CEQA Guidelines*, "[r]eporting' generally consists of a written compliance review that is presented to a decision-making body or authorized staff person. A report may be required at various stages during project implementation or upon completion of the mitigation measure. 'Monitoring' is generally an ongoing or periodic process of project oversight." This MMRP includes both reporting and monitoring elements, as appropriate for implementation of each mitigation or improvement measure.

## SECTION 2: CONTENT OF MMRP MATRIX

The MMRP matrix consists of four separate tables:

- Table A, Mitigation Measures
- Table B, Improvement Measures
- Table C, Applicable Regulations
- Table D, Summary of Transportation Management Plan

Table A, Mitigation Measures, and Table B, Improvement Measures, identify the environmental issue areas for which actions/measures are identified; the required actions/measures; the timeframe for implementing, monitoring, and reporting on these measures; the responsible implementing, monitoring and reporting parties; and action needed to verify compliance/completion of the measures. Table C lists applicable regulations that were identified in the Initial Study and the Final SEIR that were relied upon to reduce or avoid significant impacts and the associated environmental issue areas. Table D summarizes the Transportation Management Plan (TMP) that is included as part of the proposed project, but will be monitored as part of the MMRP, and includes the same types of information as Tables A and B.

## SECTION 3: IMPLEMENTATION AND ENFORCEMENT OF MEASURES

This MMRP includes all mitigation measures that are applicable to the project. The intent of the MMRP is to ensure the effective implementation and enforcement of adopted mitigation measures. In addition to listing mitigation measures, for the purposes of public disclosure and to assist in



implementation and enforcement, the MMRP also lists “improvement measures”, “applicable regulations”, and the Project TMP.

Mitigation measures are contained in **Table A**. As discussed in the Initial Study and the Final SEIR, the mitigation measures included in the MMRP are measures required to avoid or lessen significant impacts of the project.

Improvement measures are contained in **Table B**. CEQA does not require mitigation measures to be adopted to address impacts that are determined to be less than significant. (*Cal. Oak Foundation v. Regents of U. of Cal.* (2010) 188 Cal.App.4th 227, 282.) Nevertheless, OCII has exercised its discretion to require implementation of various “improvement measures” to further reduce or avoid impacts that the Final SEIR determined to be less than significant without mitigation.

Applicable regulations are contained in **Table C**. A lead agency may rely on compliance with applicable laws and regulations in determining that a proposed project will result in a less-than-significant impact. (See *San Francisco Tomorrow v. City and County of San Francisco* (2014) 229 Cal.App.4th 49, 525 [holding the city properly relied on compliance with building codes and related regulations in determining the proposed project would not result in potential safety hazards].) Applicable regulations are legally binding and enforceable laws or adopted regulations that OCII has determined are legally applicable to the project and will ensure an impact is less than significant.

A summary of the project’s Transportation Management Plan (TMP) is included as **Table D**. The TMP is a management and operating plan included as part of the project to facilitate multimodal access to the project site. The TMP includes various management strategies to reduce use of single-occupant vehicles and to increase the use of ridershare, transit, bicycle, and walk modes for trips to and from the project site. The TMP program was developed by the project sponsor in consultation with the San Francisco Municipal Transportation Agency (SFMTA), OCII, and the Planning Department. The TMP outlines the process to monitor and refine the strategies in the TMP in conjunction with the City throughout the life of the project. Thus, the TMP is a working document that will be adjusted and refined over time by the project sponsor and City agencies involved in implementing the plan. Monitoring methods include field surveys of operations of the event center during the first four years, and an annual survey and reporting program for the life of the project. Under the annual survey and reporting program, the project sponsor shall conduct annual surveys of: (1) event center employee, (2) event center attendees, (3) UCSF employees and patients, (4) emergency service providers, and (5) visitors of Mission Bay neighborhoods to evaluate the effectiveness of the management strategies. The TMP includes annual reporting of the TMP measures to OCII, referred to in this MMRP as the TMP monitoring surveys and reports. The TMP monitoring surveys and reports may be included as part of the MMRP Annual Report described in Section 4 below.

The MMRP matrix identifies the mitigation schedule and the parties responsible for implementing, monitoring and reporting on the implementation of the measures listed in Tables A, B, and D. As the CEQA lead agency for the Project, OCII is principally responsible for MMRP monitoring and enforcement. In addition, as provided in CEQA Guidelines Section 15097(a), OCII may delegate MMRP monitoring responsibilities to other public agencies, either working with City or other local



governments through their permitting or regulatory authorities, or through memoranda of understanding that OCII enters into with other entities. Accordingly, the MMRP identifies other public agencies, including SFMTA, the San Francisco Public Utilities Commission (SFPUC), the San Francisco Department of Building Inspection (DBI), the San Francisco Department of Public Works (DPW), the San Francisco Planning Department, the San Francisco Entertainment Commission, the San Francisco Bay Regional Water Quality Control Board (RWQCB) and the Bay Area Air Quality Management District (BAAQMD) where such delegation is known or anticipated.

If any mitigation and improvement measures are not implemented as required, OCII may, in conjunction with other entities listed above, pursue corrective actions including, but not limited to, the following: (1) a written notification and request for compliance; (2) withholding of permits; (3) administrative fines; (4) a stop-work order; (5) criminal prosecution and/or administrative fines; (6) forfeiture of security bonds or other guarantees; and (7) revocation of permits or other entitlements.

#### **SECTION 4: MMRP ANNUAL REPORT**

The project sponsor shall submit a MMRP Annual Report to OCII for the life of the project. The first MMRP Annual Report shall be due one year following commencement of project construction. The MMRP Annual Report shall summarize the current implementation and compliance status at the time of the report for all mitigation, improvement, and TMP measures for which the project sponsor has been assigned some or all reporting responsibility; for measures that another entity is responsible for implementing, the project sponsor shall report on readily available information about the implementation and compliance status of such measures but such reporting responsibility does not transfer responsibility for implementation of such measures to the project sponsor. The MMRP matrix identifies the monitoring and reporting actions included in the annual report unless another monitoring or reporting action is specified for individual mitigation measures.

#### **SECTION 5: CHANGES TO MITIGATION MEASURES**

Any substantive change in the MMRP made by OCII staff shall be reported in writing to the Executive Director of OCII. Reference to such changes shall be made in the MMRP Annual Report. OCII staff may modify or substitute mitigation measures subject to one of the following findings, documented by substantial evidence:

- a. The mitigation measure included in the Final SEIR and the MMRP is no longer required because the significant environmental impact identified in the Final SEIR has been found not to exist, or to occur at a level which makes the impact less than significant as a result of changes in the project, changes in conditions of the environment, or other factors.

OR

- b. The modified or substitute mitigation measure either provides corrections to text without any substantive change in the intention or meaning of the original mitigation measure, or provides a level of environmental protection equal to or greater than that afforded by the mitigation measure included in the Final SEIR and the MMRP; and



The modified or substitute mitigation measures do not have significant adverse effects on the environment in addition to or greater than those which were considered by the relevant agencies in their decisions on the Final SEIR and the proposed project; and

The modified or substitute mitigation measures are feasible, and OCII, through measures included in the MMRP or other City procedures, can ensure their implementation.

Documentation supporting the findings involving modifications to mitigation measures shall be maintained in the project file with the MMRP and shall be made available to the public upon request.

#### LIST OF ABBREVIATIONS

BAAQMD	Bay Area Air Quality Management District
B/MBTCC	Ballpark/Mission Bay Transportation Coordination Committee
DBI	San Francisco Department of Building Inspection
DPW	San Francisco Department of Public Works
FAA	Federal Aviation Administration
MMRP	Mitigation Monitoring and Reporting Program
OCII	Office of Community Investment and Infrastructure
Port	Port of San Francisco
RWQCB	San Francisco Bay Regional Water Quality Control Board
SFFD	San Francisco Fire Department
SFMTA	San Francisco Municipal Transportation Agency
SFPUC	San Francisco Public Utilities Commission
TMA	Mission Bay Transportation Management Association
TMP	Transportation Management Plan
PCO	Parking Control Officer
WETA	San Francisco Bay Area Water Emergency Transportation Authority



## MITIGATION MONITORING &amp; REPORTING PROGRAM

TABLE A - MITIGATION MEASURES

MITIGATION MEASURE	MITIGATION RESPONSIBILITY	MITIGATION SCHEDULE	MONITORING AND REPORTING RESPONSIBILITY	MONITORING ACTIONS/SCHEDULE AND VERIFICATION OF COMPLIANCE
<b>Transportation and Circulation, SEIR Section 5.2</b>				
<b>M-TR-2a: Additional PCOs during Events</b> As a mitigation measure to manage traffic flows and minimize congestion associated with events at the project site, the proposed project's TMP shall be modified to include four additional PCOs (i.e., in addition to the 17 PCOs included in the project TMP) that shall be deployed to intersections where the proposed project would result in significant impacts, as conditions warrant during events. These could include the intersections of King/Fourth, Fifth/Harrison/I-80 westbound off-ramp, Fifth/Bryant/I-80 eastbound on-ramp, Seventh/Mission Bay Drive, and Seventh/Mississippi/16th. The PCO Supervisor shall make the determination where the additional PCOs would be located, based on field conditions during an event.	SFMTA	Ongoing: All events with more than 12,500 attendees	SFMTA	Ongoing: Visual verification at time of event by PCO Supervisor
<b>M-TR-2b: Additional Strategies to Reduce Transportation Impacts</b> The project sponsor shall work with the City to pursue and implement commercially reasonable additional strategies (i.e., in addition to those included in the project TMP) to reduce transportation impacts. In addition, the City shall pursue and implement additional strategies to be implemented by the City or other public agency (e.g., Caltrans). These strategies shall include one or more of the following:				
<b>Strategies to Reduce Traffic Congestion</b> <ul style="list-style-type: none"> <li>The City to request that Caltrans install changeable message signs on I-280 upstream of key entry points onto the local street network.</li> <li>The City to provide coordinated outreach efforts to surrounding neighborhoods to explore the need/desire for new on-street parking management strategies, which could include implementation of time limits and Residential Parking Permit program areas.</li> </ul>	SFMTA	Within one year of project approval	OCII	Include in MMRP Annual Report; Complete when request made
	SFMTA	Ongoing	OCII	Include in MMRP Annual Report; Ongoing outreach efforts as needed



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MITIGATION MEASURE	MITIGATION RESPONSIBILITY	MITIGATION SCHEDULE	MONITORING AND REPORTING RESPONSIBILITY	MONITORING ACTIONS/SCHEDULE AND VERIFICATION OF COMPLIANCE
<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<ul style="list-style-type: none"> <li>The project sponsor to offer for pre-purchase substantially all available on-site parking spaces not otherwise committed to office tenants, retail customers or season ticket holders, and to cooperate with neighboring private garage operators to pre-sell parking spaces, as well as notify patrons in advance that nearby parking resources are limited and travel by non-auto modes is encouraged.</li> </ul>	Project Sponsor	Before first event at Event Center, and ongoing thereafter	OCII	Include in MMRP Annual Report
<ul style="list-style-type: none"> <li>The project sponsor to create a smart phone application, or integrate into an existing smart phone application, transportation information that promotes transit first, allows for pre-purchase of parking and designates suggested paths of travel that best avoid congested areas or residential streets such as Bridgeview north of Mission Bay Boulevard and Fourth Street.</li> </ul>	Project Sponsor	Before first event at Event Center, and ongoing thereafter	OCII	Include in MMRP Annual Report; Complete upon launch of application
<ul style="list-style-type: none"> <li>The City and the project sponsor to work to identify off-site parking lot(s) in the vicinity of the event center, if available, where livery and TNC vehicles could stage prior to the end of an event.</li> </ul>	Project Sponsor; City	Before opening of Event Center, and as needed thereafter for up to 4 years	OCII	Include in MMRP Annual Report; Complete at expiration of 4-year period
<ul style="list-style-type: none"> <li>The City to include on-street parking spaces within Mission Bay in the expansion and permanent implementation of SFpark, including dynamic pricing, and smart phone application providing real-time parking availability and cost.</li> </ul>	SFMTA	Within 4 years of expansion of SFpark into Mission Bay	OCII; SFMTA	Include in MMRP Annual Report; Ongoing as needed;
<ul style="list-style-type: none"> <li>The City shall work to include the publicly accessible off-street facilities into the permanent implementation of SFpark, and incorporate data into a smart phone application and permanent dynamic message signs.</li> </ul>	SFMTA	Within 4 years of expansion of SFpark into Mission Bay	OCII; SFMTA	Include in MMRP Annual Report; Ongoing as needed;
<ul style="list-style-type: none"> <li>If necessary to support achievement of non-auto mode shares for the project, the project sponsor shall cooperate with future City efforts to manage and price the off-site parking supply in the project vicinity to reduce travel by automobile, thus improving traffic conditions.</li> </ul>	Project Sponsor	First year of event center operation, and annually thereafter	OCII; SFMTA	Include in MMRP Annual Report
<ul style="list-style-type: none"> <li>The project sponsor to seek partnerships with car-sharing services.</li> </ul>	Project Sponsor	Prior to issuance of occupancy permit for the event center	OCII	Include in MMRP Annual Report



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MITIGATION MEASURE	MITIGATION RESPONSIBILITY	MITIGATION SCHEDULE	MONITORING AND REPORTING RESPONSIBILITY	MONITORING ACTIONS/SCHEDULE AND VERIFICATION OF COMPLIANCE
<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<b>Strategy to Enhance Non-auto Modes</b> <ul style="list-style-type: none"> <li>The project sponsor to provide a promotional incentive (e.g., show Clipper card or bike valet ticket for concession savings, chance to win merchandise or experience, etc.) for public transit use and/or bicycle valet use at the event center.</li> </ul>	Project Sponsor	First year of event center operation, and annually thereafter	OCII	Include in MMRP Annual Report
<b>Strategies to Enhance Transportation Conditions in Mission Bay and Nearby Neighborhoods</b> <ul style="list-style-type: none"> <li>The project sponsor to participate as a member of the Ballpark/Mission Bay Transportation Coordination Committee (B/MBTCC) and to notify at least one month prior to the start of any non-GSW event with at least 12,500 expected attendees. If commercially reasonable circumstances prevent such advance notification, the GSW shall notify the B/MBTCC within 72 hours of booking.</li> <li>The City and the project sponsor to meet to discuss transportation and scheduling logistics following signing any marquee events (national tournaments or championships, political conventions, or tenants interested in additional season runs: NCAA, etc.).</li> </ul>	Project Sponsor	Following project approval; ongoing	OCII; SFMTA	Include in MMRP Annual Report; OCII and/or SFMTA to attend B/MBTCC meetings
<b>Strategies to Increase Transit Access</b> <ul style="list-style-type: none"> <li>The City to consult with regional providers to encourage increased special event service, particularly longer BART and Caltrain trains, and increased ferry and bus service.</li> <li>The City to work in good faith with the Water Emergency Transportation Agency, the project sponsor, UCSF, and other interested parties to explore the possibility of construction of a ferry landing at the terminus of 16th Street, and provision of ferry service during events.</li> </ul>	SFMTA	Regularly as part of the B/MBTCC meetings	SFMTA	Include in MMRP Annual Report; SFMTA to participate in meetings
<b>M-TR-5a: Additional Caltrain Service</b> <p>As a mitigation measure to accommodate transit demand to and from the South Bay for weekday and weekend evening events, the project sponsor shall work with the Ballpark/Mission Bay Transportation Coordinating Committee to consult with</p>	SFMTA; Port	Regularly as part of the B/MBTCC meetings	SFMTA; Port	Include in MMRP Annual Report; SFMTA, Port to participate in meetings
	Ballpark/Mission Bay Transportation Coordinating Committee; Project Sponsor through participation in the B/MBTCC	First year of event center operation, and reviewed annually thereafter	OCII; Project Sponsor through participation in the B/MBTCC	TMP monitoring surveys and reports; OCII to attend meetings



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MITIGATION MEASURE	MITIGATION RESPONSIBILITY	MITIGATION SCHEDULE	MONITORING AND REPORTING RESPONSIBILITY	MONITORING ACTIONS/SCHEDULE AND VERIFICATION OF COMPLIANCE
<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
Caltrain to provide additional Caltrain service to and from San Francisco on weekdays and weekends. The need for additional service shall be based on surveys of event center attendees conducted as part of the TMP.				
<b>M-TR-5b: Additional North Bay Ferry and/or Bus Service</b> As a mitigation measure to accommodate transit demand to the North Bay following weekday and weekend evening events, the project sponsor shall work with the Ballpark/Mission Bay Transportation Coordinating Committee to consult with Golden Gate Transit and WETA to provide additional ferry and/or bus service from San Francisco following weekday and weekend evening events. The need for additional service shall be based on surveys of event center attendees conducted as part of the TMP.	Ballpark/Mission Bay Transportation Coordinating Committee; Project Sponsor through participation in the B/MBTCC	First year of event center operation, and reviewed and revised annually thereafter	OCII	TMP monitoring surveys and reports; OCII to attend meetings
<b>M-TR-6: Active Management of Pedestrian Flows at the Intersection of Third/South</b> As a mitigation measure to accommodate pedestrians traveling to and from the event center through the intersection of Third/South, PCOs stationed at this location shall implement strategies to allow pedestrians to cross the street safely. The strategies and level of active management shall be tailored to the event size, and could include extending the green time for pedestrians crossing the street, manually overriding the traffic signal and directing pedestrians to cross, erecting temporary pedestrian crossing barriers, allowing use of the closed Third Street as a pedestrian access route, providing a defined passenger waiting area within the closed Third Street, shielding passengers waiting to board light rail from adjacent pedestrian traffic, and deploying additional PCOs to this intersection.	SFMTA	Ongoing; all events with more than 12,500 attendees	OCII	Ongoing; Visual verification at time of event by PCO Supervisor
<b>M-TR-9a: Crane Safety Plan for Project Construction</b> Prior to construction, the project construction contractor shall develop a crane safety plan for the project construction cranes that would be implemented during the construction period. The crane safety plan shall identify appropriate measures to avoid potential conflicts that may be associated with the operation of the project construction cranes in the vicinity of the UCSF	Project Sponsor	Prior to Issuance of Construction Permits	OCII	Include in MMRP Annual Report; Complete upon submittal of final Crane Safety Plan



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MITIGATION MEASURE	MITIGATION RESPONSIBILITY	MITIGATION SCHEDULE	MONITORING AND REPORTING RESPONSIBILITY	MONITORING ACTIONS/SCHEDULE AND VERIFICATION OF COMPLIANCE
<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<p>Berloff Children's Hospital helipad airspace. These safety protocols shall be developed in consultation with OCII (or its designated representative) and UCSF, and the crane safety plan shall be subject to approval by OCII or its designated representative. The crane safety plan shall include, but is not limited to the following measures:</p> <ul style="list-style-type: none"> <li>Convey project crane activity schedule to UCSF and OCII</li> <li>If other projects on adjacent properties are under construction concurrent with the proposed project and are using tower cranes, the project sponsor shall participate in joint consultation with those project sponsors and OCII or its designated representative to ensure any potential cumulative construction crane effects on the UCSF helipad would be minimized.</li> <li>Use appropriate markings, flags, and/or obstruction lighting on all project construction cranes working in proximity to the helipad's airspace surfaces.</li> <li>Light all construction crane structures at night (e.g., towers, arms, and suspension rods) to enhance a pilot's ability to discern the location and height of the cranes.</li> <li>Inform crane operators of the location and elevation of the hospital helipad's Part 77 airspace surfaces and the need to avoid penetrations to the surfaces.</li> <li>Issue a Notice to Airmen (NOTAM) to advise pilots in the area of the presence of construction cranes at the project site.</li> </ul>				
<p><b>M-TR-9d: Event Center Exterior Lighting Plan</b></p> <p>The project sponsor shall develop an exterior lighting plan that incorporates measures to ensure specialized exterior lighting systems would not result in a substantial air safety risk and/or create a safety hazard relating to helipad operations. Feasible measures shall be developed in consultation with SFO staff knowledgeable of the effects of lighting on pilots and safe air navigation, and OCII (or its designated representative), and the exterior lighting plan shall be subject to approval by OCII or its</p>	Project Sponsor	Before opening of Event Center	OCII	Include in MMRP Annual Report; Complete upon submittal of plan



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TABLE A - MITIGATION MEASURES

MITIGATION MEASURE	MITIGATION RESPONSIBILITY	MITIGATION SCHEDULE	MONITORING AND REPORTING RESPONSIBILITY	MONITORING ACTIONS/SCHEDULE AND VERIFICATION OF COMPLIANCE
<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
designated representative. Measures may include, but are not limited to, the following:				
<ul style="list-style-type: none"> <li>Prohibit the use of high-intensity lights that are directed towards the UCSF helipad</li> <li>Prohibit the use of high-intensity outdoor flashing lights or strobe lights in proximity to the hospital helipad's three approaches</li> <li>Prohibit the use of outdoor lasers directed upward, and laser light shows that have not been subject to prior review by OCII in consultation with SFO staff knowledgeable of the effects of lighting on pilots and safe air navigation and, if necessary the FAA</li> <li>Avoid outdoor fireworks proximate to flight paths unless (1) the SFFD approves the proposed use of fireworks, and (2) notice of the event is provided to UCSF</li> <li>Avoid the use of light configurations similar to those associated with the UCSF helipad landing area, and where feasible, locate primary outdoor lighted displays and television/lighted screens away from the project property line at 16th Street, South Street, or Third Street</li> <li>Notify in advance and consult with OCII and UCSF representatives regarding planned special event lighting</li> <li>Develop exterior specialized lighting guidelines and ensure event organizers are informed of the hospital helipad, its approaches, and safety concerns related to outdoor nuisance lighting</li> <li>Identify appropriate management policies and procedures to respond to the use of handheld laser pointers by the public on the project site which may pose a hazard to pilots</li> <li>Identify appropriate management policies regarding the use of drones on the project site and procedures to respond to aerial drone activity that may pose a hazard to pilots</li> </ul>				



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<b>M-TR-11a:</b> As a mitigation measure to manage traffic flows and minimize congestion associated with overlapping events, the proposed project's TMP shall be expanded to include two additional PCOs that shall be deployed to the following intersections where the proposed project would result in significant traffic impacts, as conditions warrant during events: King/Fifth/I-280 ramps, and Fourth/16th, where PCOs would not be located as part of the project TMP or Mitigation Measure M-TR-2a: Additional PCOs during Events. The PCO Supervisor shall make the determination where the additional PCOs would be located, based on field conditions during an event. This measure shall be implemented in coordination with Mitigation Measure M-TR-2a: Additional PCOs during Events, and these two additional PCOs during overlapping events shall be in addition to the four additional PCOs that shall be provided as part of Mitigation Measure M-TR-2a: Additional PCOs during Events.	SEMTA	Ongoing: all events with more than 12,500 attendees that overlap with SF Giants events at AT&T Park	SEMTA	Ongoing: Visual verification at time of event by PCO Supervisor
<b>M-TR-11b: Participation in the Ballpark/Mission Bay Transportation Coordinating Committee</b> As a mitigation measure to optimize effectiveness of the transportation management strategies for day-to-day operations and events in the Mission Bay area, at AT&T Park, UCSF Mission Bay campus, and the proposed project, the project sponsor shall actively participate as a member of the Ballpark/Mission Bay Transportation Coordinating Committee in order to evaluate and plan for operations of all three facilities (i.e., AT&T Park, UCSF Mission Bay Campus, and the proposed event center). This committee would, among other roles, serve as a single point for coordination of transportation management strategies. The Transportation Coordinating Committee shall consult on changes to and expansion of transit services, and for developing and implementing strategies within their purview that address transportation issues and conflicts as they arise. In addition, the committee shall serve as a liaison for operation of the facilities, monitoring conditions, and addressing community issues related to events and the project sponsor shall make good faith efforts to notify the committee regarding events.	Project Sponsor through participation in B/MBTCC	Following project approval and as scheduled thereafter	OCII	Include in MMRP Annual Report; OCII, SEMTA to attend B/MBTCC meetings



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<b>M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events</b> The project sponsor shall work with the City to pursue and implement additional strategies to reduce transportation impacts associated with overlapping events at AT&T Park and the proposed event center. These strategies shall include one or more of the following:				
<ul style="list-style-type: none"> <li>The project sponsor shall exercise commercially reasonable efforts to avoid scheduling non-Golden State Warriors events of 12,500 or more event center attendees that start within 60 minutes of the start of events at AT&amp;T Park.</li> </ul>	Project Sponsor	Ongoing; all events with more than 12,500 attendees that overlap with SF Giants events at AT&T Park	OCII	Include in MMRP Annual Report
<ul style="list-style-type: none"> <li>When overlapping non-Golden State Warriors events of 12,500 or more event center attendees and evening SF Giants games, the project sponsor shall exercise commercially reasonable efforts to negotiate with the event promoter to stagger start times such that the event headliner starts no earlier than 8:30 p.m.</li> </ul>	Project Sponsor	Ongoing; all events with more than 12,500 attendees that overlap with SF Giants events at AT&T Park	OCII	Include in MMRP Annual Report
<ul style="list-style-type: none"> <li>The City has identified two off-site parking lots on Port of San Francisco lands to the south of the event center (19th Street and Western Pacific sites) that can accommodate approximately 250 additional parking spaces for all events and up to approximately 800 additional parking spaces for use during dual events of 12,500 or more event center attendees (for a total of approximately 1,050 additional off-site parking spaces). As long as the Port of San Francisco takes all necessary actions to make the land available for public parking, the project sponsor shall: (1) make commercially reasonable efforts to negotiate with the Port of San Francisco or its designee to acquire sufficient rights for the use of such parking lot(s) through lease, purchase, or other means as necessary; and (2) (if such negotiations are successful) provide free shuttles to the event center from such off-site parking lot(s) that are more than ½-mile from the event center on a maximum 10-minute headway before and after events.</li> </ul>	Port; Project Sponsor; parking lot operator(s)	Within one year after Port takes all necessary actions to make land available for public parking.	OCII	Include in MMRP Annual Report; Complete before opening of Event Center



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<ul style="list-style-type: none"> <li>In the event that the off-site parking lots at 19th Street and the Western Pacific site are implemented, the SFMTA shall consult with Caltrans in assessing the feasibility of signalizing the intersection of Pennsylvania/I-280 southbound off-ramp. If determined feasible by the SFMTA and Caltrans, the SFMTA and Caltrans shall establish the level of traffic volumes that would trigger the need for a signal, and the project sponsor shall fund its fair share cost of the design and implementation of the new signal, based on project contributions to annual average weekday traffic volumes at this intersection.</li> </ul>	SFMTA	When traffic signal warrants are met	OCII	Include in MMRP Annual Report; SFMTA to track cumulative development in area
<ul style="list-style-type: none"> <li>In addition, as part of monitoring of traffic conditions during overlapping events, the SFMTA shall consult with Caltrans regarding the need to deploy an SFMTA PCO or CHP officer to expedite traffic exiting I-280 southbound (i.e., waving vehicles exiting I-280 southbound and turning left onto southbound Pennsylvania Street through the existing stop sign) during overlapping events when the Western Pacific parking lot is used for project event parking. The PCO or CHP officer would be deployed during those events prior to installation of a traffic signal or if signalization of this intersection is determined not to be feasible.</li> </ul>	SFMTA	During all events with more than 12,500 attendees, that overlap with SF Giants events at AT&T Park	SFMTA	SFMTA by stationing PCO or CHP at off-ramp as needed
<ul style="list-style-type: none"> <li>To manage traffic flows and minimize congestion associated with non-Golden State Warriors events overlapping with events at AT&amp;T Park, and to incentivize event attendees and UCSF employees to use alternatives to the private automobile, the City and the project sponsor shall pursue and implement additional transportation management actions during the pre-event period during overlapping events. This measure shall be implemented in coordination with and in addition to Mitigation Measure M-TR-11a: Additional PCOs during Events and Mitigation Measure M-TR-11b: Additional Strategies to Reduce Transportation Impacts. Strategies shall include one or more of the following:</li> </ul>	Project Sponsor; SFMTA	First year of event center operation, and annually thereafter	OCII	TMP monitoring surveys and reports



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<p><i>Strategies to Increase Use of Non-auto Modes</i></p> <ul style="list-style-type: none"> <li>Encouraging coordinated parking pricing strategies among nearby facilities designed to discourage driving for event attendees and employees.</li> <li>Marketing "No drive" events.</li> <li>Installing Clipper Card add-value machines on-site at the event center to facilitate purchase and value-adding, and to minimize impacts on transit "dwell times" of paying cash fares.</li> <li>Exploring implementation of congestion pricing tools to charge event-related fees for driving and parking in the immediate area.</li> <li>Establishing event-sponsored promotions to encourage additional use of transit, such as event-branded Clipper Cards, bundled discounts and subsidies for transit ticket purchases, or automatic prize/raffle entries/merchandise discounts for event attendees taking transit.</li> <li>Exploring implementation of priority access or fast-track security clearance to the event center for attendees arriving by transit or bicycling to the event center.</li> <li>Promoting the above strategies through event tickets and ticketholder emails, website transit information, and real-time updates.</li> <li>Consulting with local TMAs targeting employees who might drive during the peak pre-event period to provide increased shuttle service, alternative travel mode promotions, and advertising the use of real-time information and technology applications.</li> <li>Sponsoring use of taxis, TNCs, or pedicabs by event sponsor to facilitate the connection between the regional transit hubs and the event center, as well as between the regional transit hubs and AT&amp;T Park.</li> </ul>				



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<p><i>Strategies to Increase Transit, Capacity of Alternative Modes, and Enhance Pedestrian Safety</i></p> <ul style="list-style-type: none"> <li>- Providing additional PCOs to manage and direct local traffic, and to favor circulation of pedestrians, cyclists, and persons arriving or departing by transit.</li> <li>- Expanding the network of PCO-controlled intersections during the peak pre-event period beyond those identified in the Local/Hospital Access Plan.</li> <li>- Exploring implementation of a program to require employees driving in the vicinity during the peak pre-event period to produce vehicle badges (e.g., rearview hanger, sticker) by employer for access to local employment sites, and coordinating with SFMTA and SFPD to honor said badges.</li> <li>- Using the Western Pacific site for off-site parking for all events, not only large overlapping events.</li> <li>- Increasing transit or High Occupancy Vehicle (HOV) capacity by operating additional SFMTA buses and/or additional private shuttle buses.</li> <li>- Supporting WETA analysis of the feasibility and operational benefits of a ferry/water taxi landing near 16th Street.</li> <li>- Increasing capacity and use of alternative modes, such as secure or valet bicycle parking, bicycle sharing, or bicycle infrastructure along the east-west corridors.</li> <li>- Expanding the SFMTA's Vision Zero treatments to nearby intersections to improve the physical pedestrian environment to enhance pedestrian safety.</li> </ul>				
<p><b>M-TR-13: Enhanced Muni Transit Service during Overlapping Events</b></p> <p>As a mitigation measure to accommodate Muni transit demand to and from the project site and AT&amp;T Park on the T Third light rail line during overlapping evening events, the project sponsor shall work with the SFMTA and the Ballpark/Mission Bay Transportation Coordinating Committee to provide enhanced</p>	Ballpark/Mission Bay Transportation Coordinating Committee; Project Sponsor through participation in the B/MBTCC	First year of event center operation, and reviewed and revised annually thereafter	OCII; SFMTA	Include in MMRP Annual Report



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
Muni light rail service and/or shuttle buses between key Market Street locations and the project. Examples of the enhanced service include Muni bus shuttles between Union Square and/or Powell Street BART/Muni station and the project site. The need for enhanced Muni service shall be based on characteristics of the overlapping events (e.g., projected attendance levels, and anticipated start and end times).				
<b>M-TR-14: Additional BART Service to the East Bay during Overlapping Events</b> As a mitigation measure to accommodate transit demand to the East Bay following weekday and weekend evening events, the project sponsor shall work with the Ballpark/Mission Bay Transportation Coordinating Committee to consult with BART to provide additional service from San Francisco following weekday and weekend evening events. The additional East Bay BART service could be provided by operating longer trains. The need for additional BART service shall be based on characteristics of the overlapping events (e.g., event type, projected attendance levels, and anticipated start and end times).	Ballpark/Mission Bay Transportation Coordinating Committee; Project Sponsor through participation in the B/MBTCC	First year of event center operation and reviewed and revised annually thereafter	OCII	Include in MMRP Annual Report; SFMTA through participation in the B/MBTCC
<b>M-TR-18: Auto Mode Share Performance Standard and Monitoring (Required only without implementation of Muni Special Event Transit Service Plan)</b> <i>Performance Standards and Strategies for Achieving Them</i> The project sponsor shall be responsible for implementing TDM measures intended to reach an auto mode share performance standard for different types of events. Specifically, the project sponsor shall work to achieve the following performance standards: 1. For weekday events that have 12,500 or more attendees, the project shall not exceed an arrival auto mode share of 53 percent. 2. For weekend events that have 12,500 or more attendees, the project shall not exceed an arrival auto mode share of 59 percent.	Project Sponsor	All events with more than 12,500 attendees	OCII; SFMTA	Include in MMRP Annual Report in the event that Muni Special Event Transit Service Plan is not implemented



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<p>The performance standards shall be achieved by the middle of the Golden State Warriors' third season at the event center, and for every Golden State Warriors season thereafter.</p> <p>The project sponsor may implement any combination of TDM strategies, including those identified in the proposed project's TMP, to achieve the above performance standards. Potential strategies include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Providing shuttle bus service between major transportation hubs such as Transbay Transit Terminal, BART stations, Caltrain stations and the event center.</li> <li>• Providing bus shuttles between park &amp; ride lots, remote parking facilities, or other facilities or locations within San Francisco, and the event center.</li> <li>• Facilitating charter bus packages through the event sales department to encourage large groups to travel to and from the event center on charter buses.</li> <li>• Reducing the project parking demand through a variety of mechanisms, including pricing.</li> <li>• Offering high occupancy vehicle parking at more convenient locations than parking for the general public and/or at reduced rates.</li> <li>• Undertaking media campaigns, including in social media, that promote walking and/or bicycling to the event center.</li> <li>• Conducting cross-marketing strategies with event center businesses (e.g., discount on merchandise/food if patrons arrive by transit and/or bike or on foot).</li> <li>• Carrying out public education campaigns.</li> <li>• Offering special event ferry service to the closest ferry station to the project site (similar to the existing service provided between AT&amp;T Park and Alameda and Marin Counties by Golden Gate Transit, Alameda/Oakland and Vallejo ferry service).</li> <li>• Providing incentive for arrivals by bike.</li> <li>• Providing transit fare incentives to event ticket holders.</li> </ul>				



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<p><b>Monitoring and Reporting</b></p> <p>The project sponsor shall retain a qualified transportation professional<sup>1</sup> to conduct travel surveys, as outlined below, and to document the results in a <i>Transportation Demand Management Report</i>. Prior to beginning the travel survey, the transportation professional shall develop the data collection methodology in consultation with and approved by OCII (or its designated representative, such as the Planning Department's Environmental Review Officer (ERO)) and in consultation with SEMTA. It is anticipated that data collection would occur at least during four days for two different types of events, for a total of eight days annually. Specifically, data collection shall be conducted during at least two weekday and two weekend NBA basketball games with 12,500 or more attendees, and two weekday and two weekend non-basketball events with attendance of 12,500 or more attendees.</p> <p>The schedule of the travel surveys shall be as follows:</p> <ul style="list-style-type: none"> <li>Comprehensive travel surveys of basketball game attendees shall be conducted between December and April of every season.</li> <li>Comprehensive travel surveys of non-basketball event attendees (conventions events, concerts, family shows, etc.) could be collected any time during the year.</li> </ul> <p>The following data of event attendees shall be collected as part of the travel surveys:</p> <ul style="list-style-type: none"> <li>Origin/destination of the trip (city, zip code, home/work/other)</li> <li>Mode of travel to/from event center <ul style="list-style-type: none"> <li>If by transit, list mode and name of transit operator (AC Transit, BART, Caltrain, Muni, etc.)</li> <li>If by rail or ferry, name of station trip started and ended</li> </ul> </li> </ul>				

<sup>1</sup> The Transportation Demand Management Report shall be performed by a qualified transportation professional from the Planning Department's *Transportation Consultant Pool*.



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<ul style="list-style-type: none"> <li>- If by auto, number of people in the vehicle</li> <li>- If by auto, parking location and approximate walking time to event center</li> <li>- If by auto, ask if following trips would continue as auto, or if anticipate a mode shift.</li> <li>- If by bicycle or walking, name the origin of the trip. If a transfer from regional transit, name the origin and operator.</li> <li>• If by bike share, name the origin (i.e., the pick up location) of the trip. Note if trip is a "last mile" connection from regional transit, and include the origin and operator.</li> <li>• Arrival and departure times at the event center</li> </ul> <p>The travel survey shall employ whatever methodology necessary, as approved by the OCII (or its designee) in consultation with SFMTA, to collect the above described data including but not limited to: manual or automatic (e.g., video or tubes) traffic volume counts, intercept surveys, smart phone application-based surveys, and on-line surveys.</p> <p>The <i>Transportation Demand Management Report(s)</i> shall be submitted to OCII, or its designee, for review within 30 days of completion of the data collection. If OCII, or its designee, finds that the project exceeds the stated mode share performance standard, the project sponsor shall revise the proposed project's Transportation Management Plan (TMP) to incorporate a set of measures that would lower the auto mode share. OCII, or its designee, shall review and approve the revised TMP. For basketball events, the TMP shall be revised by no later than August 15th of the calendar year to ensure adequate lead time to implement TDM measures prior to the start of the following basketball season. For non-basketball events, the proposed project's TMP shall be revised within 90 days of submittal of the <i>Transportation Demand Management Report</i> to incorporate a set of measure that would lower the auto mode share.</p> <p>If the project does not meet the stated performance standard, the project sponsor shall implement TDM measures and collect data on a semi-annual basis (i.e., twice during a calendar year) to</p>				



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<p>assess their effectiveness for basketball games and other events. The implementation of TDM measures shall be intensified until the auto mode split performance standard is achieved. Upon achievement of the performance standard, the project sponsor may resume travel survey data collection for basketball and non-basketball events on an annual basis. If the sponsor demonstrates three consecutive years of meeting the auto mode share performance standard, the comprehensive data collection effort may occur every two years.</p> <p>The data collection plan described above may be modified by OCII, or its designee, in consultation with SFMTA if field observations and/or other circumstances require data collection at different times and/or for different events than specified above. The modification of the data collection plan, however, shall not change the performance standards set forth in this mitigation measure.</p>				
<p><b>M-TR-22: Provide Safe Pedestrian Access to Adjacent Transit and Parking Facilities and Monitoring (Required only without implementation of Muni Special Event Transit Service Plan)</b></p> <p>During events with 3,000 or more attendees, the project sponsor shall be responsible for providing trained personnel (e.g., off-duty SFPD staff) to control pedestrian, bicycle and vehicular flows to and from the event center at the intersections immediately adjacent to the project site and to ensure that Muni platforms serving the site are not over capacity. The trained personnel shall be provided during pre- and post-event periods. The project sponsor shall ensure that conflicts between various modes are reduced to the maximum extent possible through adequate staffing of trained personnel as well as other measures, as appropriate.</p> <p>Other pedestrian management measures that could be implemented include but are not limited to: installation of barricades, proper signage and announcements to disperse patrons to other streets around the project site, such as to Terry A. Francois Boulevard, and cross-marketing incentives such as discounts at the restaurant and retail establishments to extend the peak departure period. Through the implementation of various</p>	Project Sponsor	All events with more than 3,000 attendees	OCII; SFMTA	<p>Include in MMRP Annual Report in the event that Muni Special Event Transit Service Plan is not implemented</p>



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<p>strategies, the project sponsor shall ensure that pedestrian conflicts with other modes are minimized by separating vehicles, bicycles, transit and pedestrian flows to the greatest extent possible, including ensuring that various modes are adequately instructed about when it is their turn to proceed. The project sponsor shall also ensure that Muni platforms are not overcrowded by staging event attendees on the adjacent sidewalks until there is sufficient space on the Muni platforms, which are proposed to be expanded as part of the project.</p> <p>At the intersection of Third/South, the trained personnel shall implement strategies to allow pedestrians to cross the street safely. The strategies could include allowing authorized personnel to manually override the traffic signal and direct pedestrians to cross, erecting temporary pedestrian crossing barriers, allowing use of the closed Third Street as a pedestrian access route, providing a defined passenger waiting area within the closed Third Street, and shielding passengers waiting to board light rail from adjacent pedestrian traffic.</p> <p><b>Monitoring and Reporting</b></p> <p>The project sponsor shall retain a qualified transportation professional<sup>2</sup> to conduct field observations of pedestrian hazards and safety conditions along Third Street adjacent to the project site, as outlined below, and to document the results in a <i>Pedestrian Access Report</i>. City staff shall verify the field data collection results. Prior to beginning field observations, the transportation professional shall develop the data collection methodology in consultation with and approved by OCII, or its designee, in coordination with SFMTA. The data collection methodology shall be reviewed and revised annually, if appropriate. Field observations shall be conducted during the following event types and attendance levels:</p> <ul style="list-style-type: none"> <li>at least two weekday NBA basketball games with 12,500 or more attendees;</li> </ul>				

2. The Transportation Demand Management Report shall be performed by a qualified transportation professional from the San Francisco Planning Department's *Transportation Consultant Pool*. Available online at <http://www.sf-planning.org/index.aspx?page=1886>. Accessed May 28, 2015.



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<ul style="list-style-type: none"> <li>at least two weekend NBA basketball games with 12,500 or more attendees;</li> <li>at least two weekday non-basketball game events with 12,500 or more attendees;</li> <li>at least two weekend non-basketball game events with 12,500 or more attendees;</li> <li>at least two weekday non-basketball game events with 3,000 to 9,000 attendees; and,</li> <li>at least two weekend non-basketball game events with 3,000 to 9,000 attendees; and</li> <li>at least two weekday convention events of 9,000 or more attendees.</li> </ul> <p>The pedestrian hazard and safety conditions field observations shall occur on an annual basis. The <i>Pedestrian Access Report</i> shall be submitted to SFMTA, OCII and Planning Department for review within 30 days of completion of the data collection. If OCII finds that the project does not meet the performance standard outlined below, the Transportation Management Plan (TMP) shall be revised to incorporate techniques to minimize conflicts between pedestrians and other modes. The TMP shall be revised within 90 days of submittal of the <i>Pedestrian Access Report</i>. When the project is not meeting the stated performance standard, the project sponsor shall collect data on a semi-annual basis (i.e., twice during a calendar year) to assess the effectiveness of various measures incorporated into the revised TMP. The implementation of various measures shall be intensified until pedestrian access to and from the site occurs in a safe manner, as determined by OCII, or its designee.</p> <p>The performance standard for safe pedestrian operations consists of the following: substantial numbers of pedestrians are not spilling onto the Muni right-of-way area, are not illegally crossing Third Street midblock, are not overcrowding the Muni platforms, and are not crossing intersections against the signal. Upon achievement of the performance standard, the project sponsor</p>				



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
may resume field observations for basketball, non-basketball and convention events on an annual basis. If the sponsor demonstrates three consecutive years of meeting the performance standard, the comprehensive data collection effort may occur every two years.  Further, in reviewing the <i>Pedestrian Access Report</i> , OCII, or its designee, may adjust the size of the events for which this measure is applicable. For example, if small scale events (e.g., those with 5,000 attendees) do not result in crosswalk and/or Muni platform overcrowding or other similar pedestrian safety conditions, OCII, or its designee, may revise this mitigation measure to apply to events of 5,001 or more attendees.				
<b>Mission Bay FSEIR Mitigation Measure E.47: Transportation System Management Plan<sup>3</sup></b> Prepare a TSM Plan, which could include the following:				
<ul style="list-style-type: none"> <li>• <i>FSEIR Mitigation Measure E.47.a:</i> Shuttle Bus - Operate shuttle bus service between Mission Bay and regional transit stops in San Francisco (e.g., BART, Caltrain, Ferry Terminal, Transbay Transit Terminal), and specific gathering points in major San Francisco neighborhoods (e.g., Richmond and Mission Districts).</li> </ul>	Mission Bay TMA; Project Sponsor through participation in the TMA	As identified by Mission Bay TMA; ongoing review with OCII	OCII; SFMTA	Include in Mission Bay TMA annual report
<ul style="list-style-type: none"> <li>• <i>FSEIR Mitigation Measure E.47.b:</i> Transit Pass Sales - Sell transit passes in neighborhood retail stores and commercial buildings in the Project Area.</li> </ul>	Mission Bay TMA; Project Sponsor through participation in the TMA	As identified by Mission Bay TMA; ongoing review with OCII	OCII; SFMTA;	Include in Mission Bay TMA annual report
<ul style="list-style-type: none"> <li>• <i>FSEIR Mitigation Measure E.47.c:</i> Employee Transit Subsidies - Provide a system of employee transportation subsidies for major employers.</li> </ul>	Mission Bay TMA; Project Sponsor through participation in the TMA	As identified by Mission Bay TMA; ongoing review with OCII	OCII; SFMTA	Include in Mission Bay TMA annual report

3 The Mission Bay South Transportation Management Plan incorporates the Mission Bay FSEIR Mitigation Measures 47a - 47c, and 47e - 47i, and it is part of the Mission Bay South Owners Participation Agreement for development within Mission Bay. Because the project sponsor would be subject to the Owner Participation Agreement, these mitigation measures were assumed to be part of the proposed project, and are summarized here for informational purposes. The Mission Bay Transportation Management Association (Mission Bay TMA) is the non-profit organization that was formed to meet the requirements of the Mission Bay FSEIR Mitigation Measure E.46: Transportation Management Organization, and implement, as appropriate, the Transportation System Management measures included in Mission Bay FSEIR Mitigation Measures E.47: Transportation System Management Plan. The Mission Bay TMA submits an Annual Report to OCII on the Transportation Management Plan activities, including the Mission Bay TMA shuttle service and ridership, travel surveys, Transportation Demand Management marketing efforts, and other transportation planning coordination with SFMTA.



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<ul style="list-style-type: none"> <li><i>FSEIR Mitigation Measure E.47.e: Secure Bicycle Parking</i> - Provide secure bicycle parking area in parking garages of residential buildings, office buildings, and research and development facilities. Provide secure bicycle parking areas by 1) constructing secure bicycle parking at a ratio of 1 bicycle parking space for each 20 automobile parking spaces, and 2) carry out an annual survey program during project development to establish trends in bicycle use and to estimate actual demand for secure bicycle parking and for sidewalk bicycle racks, increasing the number of secure bicycle parking spaces or racks either in new buildings or in existing automobile parking facilities to meet the estimated demand. Provide secure bicycle racks throughout Mission Bay for the use of visitors.</li> </ul>	Mission Bay TMA; Project Sponsor through participation in the TMA	As identified by Mission Bay TMA; ongoing review with OCII	OCII	Include in Mission Bay TMA annual report
<ul style="list-style-type: none"> <li><i>FSEIR Mitigation Measure E.47.f: Appropriate Street Lighting</i> - Ensure that streets and sidewalks in Mission Bay are sufficiently lit to provide pedestrians and bicyclists with a greater sense of safety, and thereby encourage Mission Bay employees, visitors and residents to walk and bicycle to and from Mission Bay.</li> </ul>	Mission Bay TMA; Project Sponsor through participation in the TMA	As identified by Mission Bay TMA; ongoing review with OCII	OCII	Include in Mission Bay TMA annual report
<ul style="list-style-type: none"> <li><i>FSEIR Mitigation Measure E.47.g: Transit and Pedestrian and Bicycle Route Information</i> - Provide maps of the local and citywide pedestrian and bicycle routes with transit maps and information on kiosks throughout the Project Area to promote multi-modal travel.</li> </ul>	SFMTA to provide in connection with transit shelters and other transit signage; Project Sponsor through participation in the TMA	In conjunction with transit shelter and signage plans	OCII; SFMTA	Include in Mission Bay TMA annual report
<ul style="list-style-type: none"> <li><i>FSEIR Mitigation Measure E.47.h: Parking Management Strategies</i> - Establish parking management guidelines for the private operators of parking facilities in the Project Area.</li> </ul>	Mission Bay TMA; Project Sponsor through participation in the TMA	As identified by Mission Bay TMA; ongoing review with OCII	OCII	Include in Mission Bay TMA annual report
<ul style="list-style-type: none"> <li><i>FSEIR Mitigation Measure E.47.i: Flexible Work Hours/Telecommuting</i> - Where feasible, offer employees in the Project Area the opportunity to work on flexible schedules and/or telecommute so they could avoid peak hour traffic conditions.</li> </ul>	Mission Bay TMA; Project Sponsor through participation in the TMA	As warranted by development; ongoing review with OCII	OCII	Include in Mission Bay TMA annual report



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<ul style="list-style-type: none"> <li><i>FSEIR Mitigation Measure E.49:</i> Ferry Service - Make a good faith effort to assist the Port of San Francisco and others in ongoing studies of the feasibility of expanding regional ferry service. Make good faith efforts to assist in implementing feasible study recommendations.</li> </ul>	Mission Bay TMA; Project Sponsor through participation in the TMA	As identified by Mission Bay TMA; ongoing review with OCII	OCII; Port	Include in Mission Bay TMA annual report
<b>Noise and Vibration, SEIR Section 5.3</b>				
<p><b>M-NO-4a: Noise Control Plan for Outdoor Amplified Sound</b></p> <p>The project sponsor shall develop and implement a Noise Control Plan for operations at the proposed entertainment venues to reduce the potential for noise impacts from public address and/or amplified music. This Noise Control Plan shall contain the following elements:</p> <ul style="list-style-type: none"> <li>The project sponsor shall comply with noise controls and restrictions in applicable entertainment permit requirements for outdoor concerts.</li> <li>Speaker systems shall be directed away from the nearest sensitive receptors to the degree feasible.</li> <li>Outdoor speaker systems shall be operated consistent with the restrictions of Section 2909 of the San Francisco Police Code, and conform to a performance standard of 8 dBA and dBC over existing ambient L90 noise levels at the nearest residential use.</li> </ul>	Project Sponsor	Submission of noise control plan prior to applicable outdoor events or as required to obtain necessary permits	San Francisco Entertainment Commission	Include in MMRP Annual Report; Ongoing for each applicable event or as required to obtain necessary permits
<p><b>M-NO-4b: Noise Control Plan for Place of Entertainment Permit</b></p> <p>As part of the Place of Entertainment Permit process, the project sponsor shall develop and implement a Noise Control Plan for operations at the proposed entertainment venue to reduce the potential for noise impacts from interior event noise. This Noise Control Plan shall, at a minimum, contain the following elements:</p> <ul style="list-style-type: none"> <li>The project sponsor shall comply with noise controls and restrictions in applicable entertainment permit requirements.</li> <li>The establishment shall provide adequate ventilation within the structures such that doors and/or windows are not left open for such purposes resulting in noise <i>emission</i> from the premises.</li> </ul>	Project Sponsor	Submission of noise control plan as required by Place of Entertainment Permit	San Francisco Entertainment Commission	Include in MMRP Annual Report; Complete upon permit approval



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<b>Noise and Vibration, SEIR Section 5.3 (cont.)</b>				
<ul style="list-style-type: none"> <li>There shall be no noise audible outside the establishment during the daytime or nighttime hours that violates the San Francisco Police Code Section 49 or 2900 et. seq. Further, no sound from the establishment shall be audible inside any surrounding residences or businesses that violates San Francisco Police Code section 2900 et seq.</li> <li>Permit holder shall take all reasonable measures to ensure the sidewalks adjacent to the premises are not blocked or unnecessarily affected by patrons or employees due to the operations of the premises and shall <i>provide</i> security whenever patrons gather outdoors.</li> <li>Permit holder shall provide a cell phone number to all interested neighbors that will be answered at all times by a manager or other responsible person who has the authority to adjust volume and respond to other <i>complaints</i> whenever entertainment is provided.</li> </ul>				
<p><b>M-C-NO-1: Construction Noise Control Measures</b></p> <p>Contractors shall employ site-specific noise attenuation measures during construction to reduce the generation of construction noise. These measures shall be included in a Noise Control Plan that shall be submitted for review and approval by the OCII or its designated representative to ensure that construction noise is reduced to the degree feasible. Measures specified in the Noise Control Plan and implemented during project construction shall include, at a minimum, the following noise control strategies:</p> <ul style="list-style-type: none"> <li>Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds).</li> <li>Construction equipment with lower noise emission ratings shall be used whenever possible, particularly for air compressors.</li> </ul>	Project Sponsor and Construction Contractor	Submit plan prior to issuance of construction site permit; implementation of plan ongoing during construction	OCII; DBI	Include in MMRP Annual Report; Periodic during construction



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<b>Noise and Vibration, SEIR Section 5.3 (cont.)</b>				
<ul style="list-style-type: none"> <li>Sound-control devices no less effective than those provided by the manufacturer shall be provided on all construction equipment.</li> <li>Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible; this could achieve a reduction of 5 dBA. Quieter procedures, such as use of drills rather than impact tools, shall be used where feasible.</li> <li>Stationary noise sources such as material stockpiles and vehicle staging areas shall be located as far from adjacent receptors as possible.</li> <li>Enclosures and mufflers for stationary equipment shall be provided, impact tools shall be shrouded or shielded, and barriers shall be installed around particularly noisy activities at the construction sites so that the line of sight between the construction activities and nearby sensitive receptor locations is blocked to the extent feasible.</li> <li>Unnecessary idling of internal combustion engines shall be prohibited.</li> <li>Construction-related vehicles and equipment shall be required to use designated truck routes to travel to and from the project sites as determined in consultation with the SFMTA as part of the permit process prior to construction (see <b>Improvement Measure I-IR-1: Construction Management Plan and Public Updates</b>).</li> <li>The project sponsor shall designate a point of contact to respond to noise complaints. The point of contact must have the authority to modify construction noise-generating activities to ensure compliance with the measures above and with the San Francisco Noise Ordinance.</li> </ul>				



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<b>Air Quality, SEIR Section 5.4</b> <b>M-AQ-1: Construction Emissions Minimization</b> <b>A. Construction Emissions Minimization Plan.</b> Prior to issuance of a construction permit, the project sponsor shall submit a Construction Emissions Minimization Plan (Plan) to the OCII or its designated representative for review and approval by an Air Quality Specialist. The Plan shall detail project compliance with the following requirements:  1. All off-road equipment greater than 25 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:  a) Where access to alternative sources of power are reasonably available, portable diesel engines shall be prohibited. Where portable diesel engines are required because alternative sources of power are not reasonably available, the diesel engine shall meet the equipment compliance step-down schedule in <b>Table M-AQ-1-1</b> .	Project Sponsor and Construction Contractor	Submit plan prior to issuance of construction site permit and implementation of plan ongoing during construction; Final plan within six months of the completion of construction.	Project sponsor to submit a Construction Emissions Minimization Plan to the OCII or its designated representative for review and approval by an Air Quality Specialist	As specified in the measure

TABLE M-AQ-1-1

## OFF-ROAD EQUIPMENT COMPLIANCE STEP-DOWN SCHEDULE

Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 4 Interim	ARB NOx VDECS (40%) <sup>4</sup>
2	Tier 3	ARB NOx VDECS (40%)
3	Tier 2	ARB NOx VDECS (40%)
<b>How to use the table:</b> If the requirements of (A)(1)(b) cannot be met, then the project sponsor would need to meet Compliance Alternative 1. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 1, then Compliance Alternative 2 would need to be met. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 2, then Compliance Alternative 3 would need to be met.		

<sup>4</sup> <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>



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<b>Air Quality, SEIR Section 5.4 (cont.)</b>				
<p>b) All off-road equipment shall have engines that meet either U.S. Environmental Protection Agency (USEPA) or California Air Resources Board (CARB) Tier 4 off-road emission standards. If engines that comply with Tier 4 off-road emission standards are not commercially available, then the project sponsor shall provide the next cleanest piece of off-road equipment as provided by the step down schedules in Table M-AQ-1-1.</p> <p>i. For purposes of this mitigation measure, "commercially available" shall mean the availability of Tier 4 equipment taking into consideration factors such as: (i) critical path timing of construction; (ii) geographic proximity to the Project site of equipment; and (iii) geographic proximity of access to off haul deposit sites.</p> <p>ii. The project sponsor shall maintain records concerning its efforts to comply with this requirement.</p> <p>2. The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than two minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, and Chinese) in designated queuing areas and at the construction site to remind operators of the two minute idling limit.</p> <p>3. The project sponsor shall require that construction operators properly maintain and tune equipment in accordance with manufacturer specifications.</p> <p>4. The Plan shall include estimates of the construction timeline by phase with a description of each piece of off-road equipment required for every construction phase. Off-road equipment descriptions and information may include, but are not limited to: equipment type, equipment manufacturer, equipment identification</p>				



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<p><b>Air Quality, SEIR Section 5.4 (cont.)</b></p> <p>number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. For VDECS installed: technology type, serial number, make, model, manufacturer, CARB verification number level, and installation date and hour meter reading on installation date. For off-road equipment using alternative fuels, reporting shall indicate the type of alternative fuel being used. Renewable diesel shall be considered as an alternative fuel if it can be demonstrated to OCII or the City's air quality specialists that it is compatible with tiered engines and that emissions of ROG and NOx from transport of fuel to the project site will not offset its NOx reduction potential. The plan shall also include estimates of ROG and NOx emissions.</p> <p>5. The project sponsor shall keep the Plan available for public review on site during working hours. The project sponsor shall post at the perimeter of the project site a legible and visible sign summarizing the requirements of the Plan. The sign shall also state that the public may ask to inspect the Plan at any time during working hours, and shall explain how to request inspection of the Plan. Signs shall be posted on all sides of the construction site that face a public right-of-way. The project sponsor shall provide copies of the Plan to members of the public as requested.</p> <p>B. Reporting. Quarterly reports shall be submitted to the OCII or its designated representative indicating the construction phase and off-road equipment information used during each phase including the information required in A(4). In addition, for off-road equipment using alternative fuels, reporting shall include the actual amount of alternative fuel used.</p> <p>Within six months of the completion of construction activities, the project sponsor shall submit to the OCII or its designated representative a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each phase, the report shall include detailed information</p>				



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<b>Air Quality, SEIR Section 5.4 (cont.)</b>				
required in A(4). In addition, for off-road equipment using alternative fuels, reporting shall include the actual amount of alternative fuel used.  C. <i>Certification Statement and On-site Requirements.</i> Prior to the commencement of construction activities, the project sponsor must certify (1) compliance with the Plan, and (2) all applicable requirements of the Plan have been incorporated into contract specifications.				
<b>M-AQ-2a: Reduce Operational Emissions</b> The project sponsor shall implement the following measures: <ul style="list-style-type: none"> <li>Provision of outlets for electrically powered landscape equipment</li> <li>Use of renewable diesel to power back-up diesel generators if it can be demonstrated to OCII or the City's air quality specialists that it is compatible with tiered engines and that emissions of ROG and NOx from transport of fuel to the project site will not offset its NOx reduction potential.</li> <li><b>Mitigation Measure M-TR-2c:</b> Additional Strategies to Reduce Transportation Impacts (see Section 5.2, Transportation and Circulation, Impact TR-2)</li> <li><b>Mitigation Measure M-TR-11c:</b> Additional Strategies to Reduce Transportation Impacts of Overlapping Events (see Section 5.2, Transportation and Circulation, Impact TR-11)</li> </ul>	Project Sponsor	Prior to completion of construction, and prior to issuance of certificate of occupancy	OCII	Include in MMRP Annual Report; Provide outlets upon completion of final design  Use of renewable diesel to be conducted as available; See above for Mitigation Measure M-TR-2c and TR-11c
<b>M-AQ-2b: Emission Offsets</b> Upon completion of construction, and prior to issuance of certificate of occupancy, the project sponsor, with the oversight of OCII or its designated representative, shall either: 1) Pay a mitigation offset fee to the Bay Area Air Quality Management District's (BAAQMD) Strategic Incentives Division in an amount no less than \$18,030 per weighted ton of ozone precursors per year requiring emissions offsets plus a 5 percent administrative fee to fund one or more emissions reduction projects within the San Francisco Bay Area Air Basin (SFEAAB). This fee is intended to fund	Project Sponsor	Upon completion of construction, and prior to issuance of certificate of occupancy	OCII	Include in MMRP Annual Report; Complete upon acceptance of fee by BAAQMD



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<p><b>Air Quality, SEIR Section 5.4 (cont.)</b></p> <p>emissions reduction projects to achieve reductions of 17 tons of ozone precursors per year, the estimated tonnage of operational and construction-related emissions offsets required. Documentation of payment shall be provided to OCII or its designated representative.</p> <p>The project sponsor shall provide calculations to the satisfaction of OCII or its designated representative of the final amount of emissions from construction activities based on the reporting requirements of Mitigation Measure M-AQ-1, which shall consider the final destination of off-hauled soil and construction waste materials by on-road trucks, contributions from Electrical Power Distribution System Expansion, and the degree of compliance with off-road equipment engine types that were commercially available. If the calculated construction emissions of ozone precursors require offsets in excess of 17 tons per year, then the applicant shall provide the additional offset amount commensurate with the calculated ozone precursor emissions exceeding 17 tons per year.</p> <p>Acceptance of this fee by the BAAQMD shall serve as an acknowledgment and commitment by the BAAQMD to:</p> <p>(1) implement an emissions reduction project(s) within one year of receipt of the mitigation fee to achieve the emission reduction objectives specified above; and (2) provide documentation to OCII or its designated representative and to the project sponsor describing the project(s) funded by the mitigation fee, including the amount of emissions of ROG and NOx reduced (tons per year) within the SFBAAB from the emissions reduction project(s). If there is any remaining unspent portion of the mitigation offset fee following implementation of the emission reduction project(s), the project sponsor shall be entitled to a refund in that amount from the BAAQMD. To qualify under this mitigation measure, the specific emissions retrofit project must result in emission reductions within the SFBAAB that would not otherwise be achieved through compliance with existing regulatory requirements; or</p>				



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<b>Air Quality, SEIR Section 5.4 (cont.)</b>				
<b>M-AQ-2b: Emission Offsets, Option 2</b> 2) Directly implement a specific offset project to achieve reductions of 17 tons per year of ozone precursors (or greater as described in item 1 above). To qualify under this mitigation measure, the specific emissions retrofit project must result in emission reductions within the SFBAAB that would not otherwise be achieved through compliance with existing regulatory requirements. Prior to implementation of the offset project, the project sponsor must obtain OCII's approval of the proposed offset project by providing documentation of the estimated amount of emissions of ROG and NOx to be reduced (tons per year) within the SFBAAB from the emissions reduction project(s). The project sponsor shall notify OCII within six months of completion of the offset project for OCII verification.	Project Sponsor	Upon completion of construction, and prior to issuance of certificate of occupancy	OCII	Include in MMRP Annual Report; Complete upon completion of project and OCII's verification
<b>Wind and Shadow, SEIR Section 5.6</b>				
<b>M-WS-1: Develop and Implement Design Measures to Reduce Project Off-site Wind Hazards</b> The project sponsor shall develop and implement design measures to reduce the identified project off-site wind hazards. The project sponsor has selected a specific on-site design modification (installation of a solid canopy with a porous vertical standoff at the ground level of the southwest corner of the proposed 16th Street office building) that is demonstrated to be effective in reducing the project wind hazard impact to a less-than-significant level. Other measures may include additional on-site project design modifications or additions, additional on-site landscaping; and the implementation of potential additional off-site streetscape landscaping or other off-site wind-reducing features. Potential on- and/or off-site project site wind-reduction design measures developed by the sponsor would be coordinated with, and subject to review and approval, by OCII.	Project Sponsor	Prior to issuance of building permit.	OCII	Include in MMRP Annual Report; Complete upon completion of final design



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<b>Utilities and Service Systems, SEIR Section 5.7</b>				
<b>M-C-UT-4: Fair Share Contribution for Mariposa Pump Station Upgrades</b> Upon determination by the SFPUC of the nature and cost of needed improvements, the project sponsor shall pay its fair share for improvements to the Mariposa Pump Station and associated wastewater facilities required to provide adequate sewer capacity within the project area and serve the project as determined by the SFPUC. The contribution shall be in proportion to the wastewater flows from the proposed project relative to the total design capacity of the upgraded pump station(s). The project sponsor shall not be responsible for any share of costs to address pre-existing pump station deficiencies.	Project Sponsor	As determined by the SFPUC	OCII; SFPUC	Include in MMRP Annual Report; Complete upon acceptance of fee by SFPUC
<b>Hydrology and Water Quality, Initial Study Section E15 and SEIR Section 5.9</b>				
<b>M-HY-6. Wastewater Sampling Ports</b> <i>Mission Bay FSIR Mitigation Measures K.2.</i> Participate in the City's existing Water Pollution Prevention Program. Facilitate implementation of the City's Water Pollution Prevention Program by providing and installing wastewater sampling ports in any building anticipated to have a potentially significant discharge of pollutants to the sanitary sewer, as determined by the Water Pollution Prevention Program of the San Francisco Public Utilities Commission's Bureau of Environmental Regulation and Management, and in locations as determined by the Water Pollution Prevention Program.	Project Sponsor	Prior to issuance of building permit	OCII; SFPUC	Include in MMRP Annual Report; Complete upon completion of final design
<b>Cultural and Paleontological Resources, Initial Study Section E4</b>				
<b>M-CP-2a: Archaeological Testing, Monitoring and/or Data Recovery Program</b> Based on a reasonable presumption that archaeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of an archaeological consultant approved by OCII or its designated representative such as those from the	Project Sponsor	Prior to construction	OCII	Include in MMRP Annual Report; Complete upon completion and approval of report



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<p><b>Cultural and Paleontological Resources, Initial Study Section E4 (cont.)</b></p> <p>rotational Department Qualified Archaeological Consultants List (QACL) maintained by the Planning Department archaeologist. The project sponsor shall contact the Department archaeologist to obtain the names and contact information for the next three archaeological consultants on the QACL. The archaeological consultant shall undertake an archaeological testing program as specified herein. In addition, the consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure. The archaeological consultant's work shall be conducted in accordance with this measure at the direction of OCII or its designated representative. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to OCII or its designated representative for review and comment, and shall be considered draft reports subject to revision until final approval by OCII or its designated representative. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the OCII or its designated representative, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archaeological resource as defined in CEQA Guidelines Sect. 15064.5 (a)(c).</p> <p><b>Consultation with Descendant Communities:</b> On discovery of an archaeological site<sup>5</sup> associated with descendant Native Americans, the Overseas Chinese, or other descendant group an appropriate representative<sup>6</sup> of the descendant group and OCII or its designated representative shall be contacted. The representative of the descendant group shall be given the</p>				

<sup>5</sup> The term "archaeological site" is intended here to include, at a minimum, any archaeological deposit, feature, burial, or evidence of burial.

<sup>6</sup> An "appropriate representative" of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and in the case of the Overseas Chinese, the Chinese Historical Society of America. An appropriate representative of other descendant groups should be determined in consultation with the Department archaeologist.



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<b>Cultural and Paleontological Resources, Initial Study Section E4 (cont.)</b>				
opportunity to monitor archaeological field investigations of the site and to consult with OCII or its designated representative regarding appropriate archaeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archaeological site. A copy of the Final Archaeological Resources Report shall be provided to the representative of the descendant group.				
<i>Archaeological Testing Program.</i> The archaeological consultant shall prepare and submit to OCII or its designated representative for review and approval an archaeological testing plan (ATP). The archaeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archaeological testing program will be to determine to the extent possible the presence or absence of archaeological resources and to identify and to evaluate whether any archaeological resource encountered on the site constitutes an historical resource under CEQA.	Project Sponsor	Testing Plan: Completed prior to issuance of any permit authorizing soils disturbance Testing program: Completed prior to commencement of any soils disturbing construction activity Testing Report: Completed prior to commencement of any soils disturbing activity	OCII	Include in MMRP Annual Report; Complete upon OCII approval of testing program and written report;
At the completion of the archaeological testing program, the archaeological consultant shall submit a written report of the findings to OCII or its designated representative. If based on the archaeological testing program the archaeological consultant finds that significant archaeological resources may be present, OCII or its designated representative in consultation with the archaeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archaeological testing, archaeological monitoring, and/or an archaeological data recovery program. No archaeological data recovery shall be undertaken without the prior approval of OCII or its designated representative. If OCII or its designated representative determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:				



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<b>Cultural and Paleontological Resources, Initial Study Section E4 (cont.)</b>				
<p>A. The proposed project shall be re-designed so as to avoid any adverse effect on the significant archaeological resource; or</p> <p>B. A data recovery program shall be implemented, unless OCII or its designated representative determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.</p>				
<p><b>Archaeological Monitoring Program.</b> If OCII or its designated representative in consultation with the archaeological consultant determines that an archaeological monitoring program shall be implemented the archaeological monitoring program shall minimally include the following provisions:</p> <ul style="list-style-type: none"> <li>The archaeological consultant, project sponsor, and OCII or its designated representative shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. OCII or its designated representative in consultation with the archaeological consultant shall determine what project activities shall be archaeologically monitored. In most cases, any soils-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the risk these activities pose to potential archaeological resources and to their depositional context;</li> <li>The archaeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archaeological resource;</li> <li>The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and OCII or its designated representative until OCII or its designated representative has, in consultation with project archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits;</li> </ul>	Project Sponsor	<p>Monitoring Program: Development of program work scope prior to commencement of soils disturbing construction activity; monitoring activity to occur during site excavation and construction, as per monitoring program</p> <p>Monitoring Report: Report submitted to OCII upon completion of monitoring Program</p>	OCII	Include in MMRP Annual Report; Complete upon OCII approval of program



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MITIGATION MEASURE	MITIGATION RESPONSIBILITY	MITIGATION SCHEDULE	MONITORING AND REPORTING RESPONSIBILITY	MONITORING ACTIONS/SCHEDULE AND VERIFICATION OF COMPLIANCE
<b>Cultural and Paleontological Resources, Initial Study Section E4 (cont.)</b>				
<ul style="list-style-type: none"> <li>The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;</li> <li>If an intact archaeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archaeological monitor has cause to believe that the pile driving activity may affect an archaeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with OCII or its designated representative. The archaeological consultant shall immediately notify the OCII or its designated representative of the encountered archaeological deposit. The archaeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, and present the findings of this assessment to OCII or its designated representative.</li> </ul> <p>Whether or not significant archaeological resources are encountered, the archaeological consultant shall submit a written report of the findings of the monitoring program to the OCII or its designated representative.</p>				
<p><i>Archaeological Data Recovery Program.</i> The archaeological data recovery program shall be conducted in accord with an archaeological data recovery plan (ADRP). The archaeological consultant, project sponsor, and OCII or its designated representative shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archaeological consultant shall submit a draft ADRP to OCII or its designated representative. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the</p>	Project Sponsor	Data Recovery Plan: Development of Program work scope, in conjunction with work scope for Archeological Monitoring Program prior to commencement of soils disturbance construction activity. More specific or detailed subsequent work scope may be required by OCII upon completion of	OCII	Include in MMRP Annual Report; Complete upon OCII approval of program



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<b>Cultural and Paleontological Resources, Initial Study Section E4 (cont.)</b>				
<p>resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.</p> <p>The scope of the ADRP shall include the following elements:</p> <ul style="list-style-type: none"> <li>• <i>Field Methods and Procedures.</i> Descriptions of proposed field strategies, procedures, and operations.</li> <li>• <i>Cataloguing and Laboratory Analysis.</i> Description of selected cataloguing system and artifact analysis procedures.</li> <li>• <i>Discard and Deaccession Policy.</i> Description of and rationale for field and post-field discard and deaccession policies.</li> <li>• <i>Interpretive Program.</i> Consideration of an on-site/off-site public interpretive program during the course of the archaeological data recovery program.</li> <li>• <i>Security Measures.</i> Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.</li> <li>• <i>Final Report.</i> Description of proposed report format and distribution of results.</li> <li>• <i>Curation.</i> Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.</li> </ul> <p><b>Human Remains and Associated or Unassociated Funerary Objects.</b> The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains</p>		<p>Archeological Monitoring Program and Report</p> <p>Data Recovery program: Activity to occur during and subsequent to construction activity, as per Data Recovery Program</p>		
	Project Sponsor	Upon discovery, if applicable	Coroner; OCII	Include in MMRP Annual Report; Complete upon Applicant notification to OCII, Coroner, and, if applicable, California State Native American Heritage Commission



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<b>Cultural and Paleontological Resources, Initial Study Section E4 (cont.)</b>				
are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archaeological consultant, project sponsor, OCII or its designated representative, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines, Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.	Project Sponsor	Upon completion of testing, monitoring and data recovery programs: For Horizontal Developer – prior to determination of substantial completion of infrastructure at each sub-phase; For Vertical Developer – Prior to issuance of Certificate of Temporary or Final Occupancy, whichever occurs first	OCII	Include in MMRP Annual Report; Complete upon applicant submittal of final approved report as specified in measure
<i>Final Archaeological Resources Report.</i> The archeological consultant shall submit a Draft Final Archaeological Resources Report (FARR) to OCII or its designated representative that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource shall be provided in a separate removable insert within the final report. Once approved by OCII or its designated representative, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and OCII or its designated representative shall receive a copy of the transmittal of the FARR to the NWIC. As requested by OCII, the Environmental Planning division of the Planning Department shall receive one bound, one unbound and one unlocked, searchable PDF copy on CD of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, OCII or its designated representative may require a different final report content, format, and distribution than that presented above.				



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<b>Cultural and Paleontological Resources, Initial Study Section E4 (cont.)</b>				
<p><b>M-CP-2b: Accidental Discovery of Archaeological Resources</b></p> <p>The following mitigation measure is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources as defined in CEQA <i>Guidelines</i> Section 15064.5(a)(c). The project sponsor shall distribute the Planning Department archaeological resource "ALERT" sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile driving, etc. firms); or utilities firm involved in soils disturbing activities within the project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the "ALERT" sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, supervisory personnel, etc. The project sponsor shall provide OCII officer or its designated representative with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) confirming that all field personnel have received copies of the Alert Sheet.</p> <p>Should any indication of an archaeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or project sponsor shall immediately notify OCII officer or its designated representative and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until OCII officer or its designated representative has determined what additional measures should be undertaken.</p> <p>If OCII officer or its designated representative determines that an archaeological resource may be present within the project site, the project sponsor shall retain the services of an archaeological consultant from the pool of qualified archaeological consultants maintained by the Planning Department archaeologist. The archaeological consultant shall advise OCII officer or its designated representative as to whether the discovery is an archaeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archaeological resource is present, the archaeological consultant shall identify and evaluate the archaeological resource. The archaeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, OCII</p>	Project sponsor	Throughout the demolition and excavation period	OCII	Include in MMRP Annual Report; Ongoing as specified in the measure



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<b>Cultural and Paleontological Resources, Initial Study Section E4 (cont.)</b>				
<p>officer or its designated representative may require, if warranted, specific additional measures to be implemented by the project sponsor.</p> <p>Measures might include: preservation in situ of the archaeological resource; an archaeological monitoring program; or an archaeological testing program. If an archaeological monitoring program or archaeological testing program is required, it shall be consistent with the Environmental Planning (EP) division guidelines for such programs. OCII officer or its designated representative may also require that the project sponsor immediately implement a site security program if the archaeological resource is at risk from vandalism, looting, or other damaging actions.</p> <p>The project archaeological consultant shall submit a Final Archaeological Resources Report (FARR) to OCII officer or its designated representative that evaluates the historical significance of any discovered archaeological resource and describing the archaeological and historical research methods employed in the archaeological monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource shall be provided in a separate removable insert within the final report.</p> <p>Copies of the Draft FARR shall be sent to OCII officer or its designated representative for review and approval. Once approved by OCII officer or its designated representative, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and OCII officer or its designated representative shall receive a copy of the transmittal of the FARR to the NWIC. OCII and the Environmental Planning division of the Planning Department shall each receive one bound copy, one unbound copy and one unlocked, searchable PDF copy on CD three copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, OCII officer or its designated representative may require a different final report content, format, and distribution than that presented above.</p>				



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<b>Biological Resources, Initial Study Section E13</b>				
<p><b>M-BL4a: Preconstruction Surveys for Nesting Birds</b></p> <p>To the extent practicable, vegetation removal and grading of the site in advance of new site construction shall be performed between September 1 and January 31 in order to avoid breeding and nesting season for birds. If these activities cannot be performed during this period, a preconstruction survey of onsite vegetation for nesting birds shall be conducted by a qualified biologist.</p> <p>In coordination with the OCII or its designated representative, pre-construction surveys of onsite vegetation shall be performed during bird breeding season (February 1 – August 31) no more than 14 days prior to vegetation removal, grading, or initiation of construction in order to locate any active passerine nests within 250 feet of the project site and any active raptor nests within 500 feet of the project site. Surveys shall be performed in accessible areas within 500 feet of the project site and include suitable habitat within line of sight as access is available. If active nests are found on either the project site or within the 500-foot survey buffer surrounding the project site, no-work buffer zones shall be established around the nests. Buffer distances will consider physical and visual barriers between the active nest and project activities, existing noise sources and disturbance, as well as sensitivity of the bird species to disturbance. Modification of standard buffer distances, 250 feet for active passerine nests and 500 feet for active raptor nests, will be determined by a qualified biologist in consultation with the California Department of Fish and Wildlife (CDFW). No vegetation removal or ground-disturbing activities including grading or new construction shall occur within a buffer zone until young have fledged or the nest is otherwise abandoned as determined by the qualified biologist.</p> <p>If construction work during the nesting season stops for 14 days or more and then resumes, then nesting bird surveys shall be repeated, to ensure that no new birds have begun nesting in the area.</p>	Project Sponsor	Not more than 15 days prior to vegetation removal and grading activities that occur between February 1 and August 31	OCII	Include in MMRP Annual Report; Complete upon completion of preconstruction nesting bird surveys or completion of vegetation removal and grading activities outside of the bird breeding season



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<b>Biological Resources, Initial Study Section E13</b>				
<b>Mitigation Measure M-BI-4b: Bird Safe Building Practices</b> The project sponsor shall design and implement the project consistent with the San Francisco Standards for Bird-Safe Buildings and Planning Code Section 139, as approved by OCII. OCII shall consult with the Planning Department and the Zoning Administrator concerning project consistency with Planning Code Section 139.	Project Sponsor	Prior to issuance of architectural addendum to building permit	OCII	Include in MMRP Annual Report; Complete upon construction in accordance with final approved plans
<b>Hazards and Hazardous Materials, Initial Study Section E16</b>				
<b>M-HZ-1a: Guidelines for Handling Biohazardous Materials</b> <i>Mission Bay FSEIR Mitigation Measure I.1.</i> Require businesses that handle biohazardous materials and do not receive federal funding to certify that they follow the guidelines published by the National Research Council and the United States Department of Health and Human Services Public Health Service, National Institutes of Health, and Centers for Disease Control, as set forth in Biosafety in Microbiological and Biomedical Laboratories, Guidelines for Research Involving Recombinant DNA Molecules (NIH Guidelines), and Guide for the Care and Use of Laboratory Animals, or their successors, as applicable.	Project Sponsor	As part of building permit process; provide annual certification thereafter	OCII	Include in MMRP Annual Report
<i>Mission Bay FSEIR Mitigation Measure I.2.</i> Require businesses handling biohazardous materials to certify that they use high efficiency particulate air (HEPA) filters or substantially equivalent devices on all exhaust from Biosafety Level 3 laboratories unless they demonstrate that exhaust from their Biosafety Level 3 laboratories would not pose substantial health or safety hazards to the public or the environment. Require such businesses to certify that they inspect or monitor the filters regularly to ensure proper functioning.	Project Sponsor	As part of building permit process; provide annual certification thereafter	OCII	Include in MMRP Annual Report
<i>Mission Bay FSEIR Mitigation Measure I.3.</i> Require businesses handling biohazardous materials to certify that they do not handle or use biohazardous materials requiring Biosafety Level 4 containment (i.e., dangerous or exotic materials that pose high risks of life-threatening diseases or aerosol-transmitted infections, or unknown risks of transmission) in the Project Area.	Project Sponsor	As part of building permit process; provide annual certification thereafter	OCII	Include in MMRP Annual Report



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<b>Hazards and Hazardous Materials, Initial Study Section E16 (cont.)</b>				
<p><b>M-HZ-1b: Geologic Investigation and Dust Mitigation Plan for Naturally Occurring Asbestos</b></p> <p>The project sponsor shall conduct a geologic investigation in accordance with the guidelines of the California Geologic Survey to determine the naturally occurring asbestos content of fill materials to be excavated at the project site. If the investigation determines that the naturally occurring asbestos content of the fill materials is 0.25 percent or greater, the project sponsor or its construction contractor shall submit the appropriate notification forms and prepare an asbestos dust mitigation plan in accordance with the Asbestos ATCM. The plan shall specify measures that will be taken to ensure that no visible dust crosses the property boundary during construction. The plan must specify the following measures:</p> <ul style="list-style-type: none"> <li>• Prevent and control visible track-out from the property</li> <li>• Ensure adequate wetting or covering of active storage piles</li> <li>• Control disturbed surface areas and storage piles that would remain inactive for 7 days Control traffic on on-site unpaved roads, parking lots, and staging areas, including a maximum vehicle speed of 15 miles per hour</li> <li>• Control earthmoving activities</li> <li>• Control offsite transport of dust emissions that contain naturally-occurring asbestos-containing materials</li> <li>• Stabilize disturbed areas following construction</li> </ul> <p>The asbestos dust mitigation plan shall be submitted to and approved by the Bay Area Air Quality Management District (BAAQMD) prior to the beginning of construction, and the site operator must ensure the implementation of all specified dust mitigation measures throughout the construction project. In addition, if required by the BAAQMD, the project sponsor or a qualified third party consultant shall conduct air monitoring for offsite migration of asbestos dust during construction activities and shall modify the dust mitigation plan on the basis of the air monitoring results if necessary.</p>	Project Applicant	Prior to obtaining a grading, excavation, site, building or other permit from the City that includes soil disturbance activities. Ongoing throughout construction activity	BAAQMD	Include in MMRP Annual Report; Complete upon approval by BAAQMD



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<b>Hazards and Hazardous Materials, Initial Study Section E16 (cont.)</b>				
<b>M-HZ-2: RMP Provisions for Child Care Facilities</b> <i>Mission Bay FSEIR Mitigation Measure J.2.</i> Carry out a site-specific risk evaluation for each site in a non-residential area proposed to be used for a public school or child care facility; submit to RWQCB for review and approval. If cancer risks exceed 1 x 10 <sup>-5</sup> and/or noncancer risk exceeds a Hazard Index of 1, carry out remediation designed to reduce risks to meet these standards or select another site that is shown to meet these standards.	Project Sponsor	Prior to OCII approval of a child care facility	OCII	Include in MMRP Annual Report; Complete upon RWQCB approval



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<b>Transportation and Circulation, SEIR Section 5.2</b>				
<p><b>I-TR-1: Construction Management Plan and Public Updates</b></p> <p><i>Construction Coordination</i> – To reduce potential conflicts between construction activities and pedestrians, bicyclists, transit and vehicles at the project site, the project sponsor shall require that the contractor prepare a Construction Management Plan for the project construction period. The preparation of a Construction Management Plan could be a requirement included in the construction bid package. Prior to finalizing the Plan, the project sponsor/construction contractor(s) shall meet with DPW, SFMTA, the Fire Department, Muni Operations and other City agencies to coordinate feasible measures to include in the Construction Management Plan to reduce traffic congestion, including temporary transit stop relocations and other measures to reduce potential traffic, bicycle, and transit disruption and pedestrian circulation effects during construction of the proposed project. This review shall consider other ongoing construction in the project vicinity, such as construction of the nearby UCSF LRDP projects and construction on Blocks 26 and 27.</p> <p><i>Carpool, Bicycle, Walk and Transit Access for Construction Workers</i> – To minimize parking demand and vehicle trips associated with construction workers, the construction contractor shall include as part of the Construction Management Plan methods to encourage carpooling, bicycle, walk and transit access to the project site by construction workers (such as providing transit subsidies to construction workers, providing secure bicycle parking spaces, participating in free-to-employee ride matching program from <a href="http://www.511.org">www.511.org</a>, participating in emergency ride home program through the City of San Francisco (<a href="http://www.sferh.org">www.sferh.org</a>), and providing transit information to construction workers.</p> <p><i>Construction Worker Parking Plan</i> – As part of the Construction Management Plan that would be developed by the construction contractor, the location of construction worker parking shall be identified as well as the person(s) responsible for monitoring the implementation of the proposed parking plan. The use of on-street parking to accommodate construction worker parking shall</p>	Project Sponsor	Prior to issuance of construction site permit	OCII; SFMTA; DBI; DPW	Include in MMRP Annual Report prior to the start of construction until temporary certificate of occupancy



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
be discouraged. All construction bid documents shall include a requirement for the construction contractor to identify the proposed location of construction worker parking. If on-site, the location, number of parking spaces, and area where vehicles would enter and exit the site should be required. If off-site parking is proposed to accommodate construction workers, the location of the off-site facility, number of parking spaces retained, and description of how workers would travel between off-site facility and project site should be required.  <i>Project Construction Updates for Adjacent Businesses and Residents</i> – To minimize construction impacts on access to nearby institutions and businesses, the project sponsor shall provide nearby residences and adjacent businesses with regularly-updated information regarding project construction, including construction activities, peak construction vehicle activities (e.g., concrete pours), travel lane closures, and parking lane and sidewalk closures. A regular email notice shall be distributed by the project sponsor that would provide current construction information of interest to neighbors, as well as contact information for specific construction inquiries or concerns.				
<b>I-TR-4: Operational Study of the Southbound Platform at the T Third UCSF/Mission Bay Station (Required only if Muni Platform Variant is not implemented.)</b>  As an improvement measure to enhance T Third operations at the UCSF/Mission Bay station for pre-event arrivals, the project sponsor shall fund a study of the effects of pedestrian flows on Muni's safety and operations prior to an event as well as the feasibility and efficacy of enlarging the southbound platform by extending it south towards 16th Street. The study shall include an assessment of exiting pedestrian flows from a fully occupied two-car light rail train on the platform and ramp to the crosswalk at South Street across Third Street, also taking into consideration the presence of non-event transit riders waiting to board the train, service frequency, and current traffic signal operations. The study shall be performed by a qualified transportation professional approved by SFMTA.	Project Sponsor	Commence study within one year of project approval	OCII; SFMTA	Include in MMRP Annual Report; Complete upon completion of study



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<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<p><b>I-TR-8: Truck and Service Vehicle Loading Operations Plan</b></p> <p>As an improvement measure to reduce potential conflicts between driveway operations, including loading activities, and pedestrians, bicycles and vehicles on South Street, Terry A. Francois Boulevard, and 16th Street, the project sponsor shall prepare a Loading Operations Plan, and submit the plan for review and approval by the OCII, or its designee, and the SFMTA. As appropriate, the Loading Operations Plan shall be periodically reviewed by the sponsor, the OCII or its designee, and SFMTA and revised if required to more appropriately respond to changes in street or circulation conditions.</p> <p>The Loading Operations Plan shall include a set of guideline related to the operation of the on-site and on-street loading facilities, as well as large truck curbside access guidelines; it shall also specify driveway attendant responsibilities to minimize truck queuing and/or substantial conflicts between project-generated loading/unloading activities and pedestrians, bicyclists, transit and autos. Elements of the Loading Operations Plan shall include:</p> <ul style="list-style-type: none"> <li>Commercial loading activities within on-street commercial loading spaces on South Street, Terry A. Francois Boulevard, and 16th Street shall comply with all posted time limits and all other posted restrictions.</li> <li>Double parking or any form of illegal parking or truck loading/unloading shall not be permitted on any streets adjacent to the project site, and particularly on 16th Street which would include a bicycle lane. Working with the SFMTA Parking Control Officers, building management shall ensure that no truck loading/unloading activities occur within the bicycle lanes on 16th Street.</li> <li>All move-in and move-out activities for commercial office uses shall be coordinated by building management, and, in the event that moving trucks cannot be accommodated within the below-grade loading area, building management shall obtain a reserved curbside permit from the SFMTA in advance of move-in or move-out activities.</li> </ul>	Project Sponsor	Prior to issuance of occupancy permit	OCII; SFMTA	Include in MMRP Annual Report; Complete upon completion of Loading Operations Plan



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IMPROVEMENT MEASURE	RESPONSIBILITY FOR IMPLEMENTATION	IMPROVEMENT MEASURE SCHEDULE	MONITORING AND REPORTING RESPONSIBILITY	MONITORING ACTIONS/SCHEDULE AND VERIFICATION OF COMPLIANCE
<b>Transportation and Circulation, SEIR Section 5.2 (cont.)</b>				
<b>I-TR-10a: UCSF Emergency Vehicle Access and Garage Signage Plan</b> As an improvement measure to enhance access for emergency vehicles and other visitors to the UCSF Children's Hospital emergency room and parking facilities at the UCSF Medical Center, the project sponsor shall work with UCSF, SFMTA, Caltrans, and DPW to develop and implement a UCSF emergency vehicle access and garage signage plan for I-280 and Mariposa, Owens, and 16th Streets to reflect desirable access routes for UCSF and event center access.	Project Sponsor	Prior to issuance of occupancy permit	OCII	Include in MMRP Annual Report; Complete upon completion of Vehicle Access and Garage Signage Plan
<b>I-TR-10b: Mariposa Street Restriping Study</b> In connection with the Mission Bay Plan improvements to the I-280 on- and off-ramps at Mariposa Street and the Owens Street extension, the SFMTA will be reevaluating the travel lane striping plan for Mariposa Street between Pennsylvania Avenue and Fourth Street. As part of this evaluation, the SFMTA will assess the feasibility of lengthening the dedicated left turn lane from eastbound Mariposa Street onto northbound Fourth Street. The evaluation is anticipated to take place in 2016, two years prior to the opening of the proposed event center. A re-evaluation may be needed following the opening of the event center. Therefore, as an improvement measure to enhance access to the UCSF Medical Center Children's Hospital, subsequent to the opening of the event center, the project sponsor shall retain a qualified transportation professional approved by SFMTA to conduct a traffic engineering study to evaluate potential changes to the travel lane configuration and related signage on Mariposa Street between the I-280 ramps and Fourth Street. The study, to be conducted in consultation with UCSF and SFMTA, would be used to determine if the dedicated eastbound left turn lane into Fourth Street/UCSF passenger loading/unloading and emergency vehicle entrance to the UCSF Children's Hospital should be extended west from its existing length of about 150 feet to provide for a longer queuing area separated from event-related traffic flow. If the study recommends restriping, the project sponsor shall fund SFMTA's cost of the design and implementation of the restriping.	Project Sponsor; SFMTA	Prior to second year of operation of the event center	OCII; SFMTA	Include in MMRP Annual Report; Complete upon completion of Restriping Study; Restriping of Mariposa Street if recommended



## MITIGATION MONITORING &amp; REPORTING PROGRAM

TABLE B - IMPROVEMENT MEASURES

IMPROVEMENT MEASURE	RESPONSIBILITY FOR IMPLEMENTATION	IMPROVEMENT MEASURE SCHEDULE	MONITORING AND REPORTING RESPONSIBILITY	MONITORING ACTIONS/SCHEDULE AND VERIFICATION OF COMPLIANCE
<b>Noise and Vibration, SEIR Section 5.3</b>				
<b>I-NO-1: Mission Bay Good Neighbor Construction Noise Policy</b> The project sponsor shall comply with the Mission Bay Good Neighbor Policy and limit all extreme noise-generating construction activities to 8:00 a.m. to 5:00 p.m., Monday through Friday. No pile driving or other extreme noise generating activity is permitted on Saturdays, Sundays, and holidays.	Project Sponsor	Ongoing during construction	OCII	Include in MMRP Annual Report; Complete upon completion of construction
<b>Greenhouse Gas Emissions, SEIR Section 5.5</b>				
<b>I-C-GG-1: Purchase Voluntary Carbon Credits</b> <i>Construction Emissions:</i> No later than six (6) months after the issuance of a Temporary Certificate of Occupancy for the project, the project sponsor shall provide to the Office of Community Investment and Infrastructure (OCII), a calculation of the net additional emissions resulting from the construction of the project, to be calculated in accordance with the methodology agreed upon by the California Air Resources Board (CARB) in connection with the AB 900 certification of the project. The project sponsor shall provide courtesy copies of the calculations to CARB and the Governor's office promptly following transmittal of the calculations to OCII. The project sponsor shall enter into one or more contracts to purchase voluntary carbon credits from a qualified greenhouse gas emissions broker in an amount sufficient to offset the construction emissions. The project sponsor shall provide courtesy copies of any such contracts to the ARB and the Governor's office promptly following the execution of such contracts.	Project Sponsor	No later than six months after the issuance of a Temporary Certificate of Occupancy for the project	OCII	Include in MMRP Annual Report; Complete upon receipt of supporting documentation
<i>Operational Emissions:</i> No later than six (6) months after project stabilization, to be defined as the date following project completion when the project is 90 percent leased and occupied (and with respect to the arena component, 90 percent of the available booking dates are utilized), the project sponsor shall submit to OCII a projection of operational emissions arising from the project, based on data accumulated to that date and reasonable projections of operational emissions for the useful life of the project (30 years), to be calculated in accordance with the methodology agreed upon by CARB in connection with the AB 900 certification of the project. The project sponsor shall provide	Project Sponsor	No later than six months after project stabilization, to be defined as the date following project completion when the project is 90 percent leased and occupied (and with respect to the arena component, 90 percent of the available booking dates are utilized)	OCII	Include in MMRP Annual Report; Complete upon receipt of supporting documentation



## MITIGATION MONITORING &amp; REPORTING PROGRAM

TABLE B - IMPROVEMENT MEASURES

IMPROVEMENT MEASURE	RESPONSIBILITY FOR IMPLEMENTATION	IMPROVEMENT MEASURE SCHEDULE	MONITORING AND REPORTING RESPONSIBILITY	MONITORING ACTIONS/SCHEDULE AND VERIFICATION OF COMPLIANCE
<b>Greenhouse Gas Emissions, SEIR Section 5.5 (cont.)</b>				
courtesy copies of the calculations to CARB and the Governor's office promptly following transmittal of the calculations to OCII. The project sponsor shall enter into one or more contracts to purchase voluntary carbon credits from a qualified greenhouse gas emissions broker in an amount sufficient to offset the operational emissions, on a net present value basis in light of the fact that the project sponsor is proposing to acquire such credits in advance of any creation of the emissions subject to the offset. The project sponsor shall provide courtesy copies of any such contracts to CARB and the Governor's office promptly following the execution of such contracts.				



## MITIGATION MONITORING &amp; REPORTING PROGRAM

TABLE C – APPLICABLE REGULATIONS

IMPACT	SIGNIFICANCE DETERMINATION	APPLICABLE REGULATIONS
<b>Transportation and Circulation, SEIR Section 5.2</b>		
<b>Impact TR-1:</b> The proposed project would not result in construction-related ground transportation impacts because of their temporary and limited duration.	LS	<ul style="list-style-type: none"> <li>San Francisco Municipal Transportation Agency Parking and Traffic Regulations for Working in San Francisco Streets (The Blue Book), 8th Edition</li> </ul>
<b>Impact C-TR-1:</b> The project, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative construction-related ground transportation impacts.	LS	<ul style="list-style-type: none"> <li>San Francisco Municipal Transportation Agency Parking and Traffic Regulations for Working in San Francisco Streets (The Blue Book), 8th Edition</li> </ul>
<b>Noise and Vibration, SEIR Section 5.3</b>		
<b>Impact NO-2:</b> Construction of the proposed project would not expose people to or generate noise levels in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies.	LS	<ul style="list-style-type: none"> <li>San Francisco Police Code Article 29 (Regulation of Noise).</li> </ul>
<b>Impact NO-4:</b> Operation of the proposed project could result in exposure of persons to or generation of noise levels in excess of standards established in the <i>San Francisco General Plan</i> or San Francisco Noise Ordinance.	LSM	<ul style="list-style-type: none"> <li>San Francisco Police Code Article 29 (Regulation of Noise).</li> </ul>
<b>Air Quality, SEIR Section 5.4</b>		
<b>Impact NO-2:</b> Construction of the proposed project would not expose people to or generate noise levels in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies.	LS	<ul style="list-style-type: none"> <li>San Francisco Police Code Article 29 (Regulation of Noise).</li> </ul>
<b>Impact AQ-1:</b> Construction of the proposed project would generate fugitive dust and criteria air pollutants, which would violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants.	SUM	<ul style="list-style-type: none"> <li>San Francisco Health Code Article 22B and San Francisco Building Code Section 106.A.3.2.6 (Construction Dust Control Ordinance)</li> </ul>
<b>Greenhouse Gas Emissions, SEIR Section 5.5</b>		
<b>Impact C-GG-1:</b> The proposed project would generate greenhouse gas emissions, but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions.	LS	<ul style="list-style-type: none"> <li>San Francisco Environment Code Section 427 (Commuter Benefits Ordinance)</li> <li>San Francisco Environment Code Section 427(d) (Emergency Ride Home Program)</li> <li>Mission Bay South Transportation Management Program (established by 1998 Mission Bay FSEIR Mitigation Measure E.47 and contains provisions equivalent to San Francisco Planning Code Section 163)</li> <li>San Francisco Planning Code Section 411 (Transit Impact Development Fee)</li> </ul>



## MITIGATION MONITORING &amp; REPORTING PROGRAM

TABLE C – APPLICABLE REGULATIONS

IMPACT	SIGNIFICANCE DETERMINATION	APPLICABLE REGULATIONS
Greenhouse Gas Emissions, SEIR Section 5.5 (cont.)		
Impact C-GG-1 (cont.)		<ul style="list-style-type: none"> <li>• Mission Bay South Redevelopment Plan and Mission Bay South Owner Participation Agreement, affordable housing requirements (contains provisions equivalent to San Francisco Planning Code Section 413 Jobs Housing Linkage Program)</li> <li>• San Francisco Green Building Code Section 5.103.1.10 and Title 24 of the California Administrative Code, Part 11, California Green Building Code, Section 5.106.5 (Fuel Efficient Vehicle and Carpool Parking)</li> <li>• San Francisco Green Building Code Section 5.201.1.1 (Energy Efficiency)</li> <li>• San Francisco Green Building Code Section 5.103.1.4 and Title 24 of the California Administrative Code, Part 11, California Green Building Code, Sections 5.410 (Commissioning of Building Energy Systems)</li> <li>• San Francisco Public Works Code Article 4.2, Section 147 (Storm Water Management)</li> <li>• San Francisco Green Building Code Section 5.103.1.2 and Title 24 of the California Administrative Code, Part 11, California Green Building Code, Section 5.303.2 (Reduction of Water Use)</li> <li>• San Francisco Administrative Code, Chapter 63 (Water Efficient Irrigation Ordinance)</li> <li>• San Francisco Green Building Code Section 5.103.1.5 (Renewable Energy)</li> <li>• San Francisco Environment Code, Chapter 19 and Title 24 of the California Administrative Code, Part 11, California Green Building Code, Section 5.410.1 (Mandatory Recycling and Composting)</li> <li>• San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, San Francisco Health Code Section 288 (Construction and Demolition Debris Recovery Ordinance)</li> <li>• San Francisco Green Building Code Section 5.103.1.3 (Construction and Demolition Debris Recycling)</li> <li>• Mission Bay Street Tree Master Plan, tree planting requirements (contains provisions equivalent to San Francisco Planning Code Section 138.1)</li> <li>• California Green Building Code, Section 5.106.8 (Light Pollution Reduction)</li> <li>• San Francisco Public Works Code Article 4.2, Section 146 (Construction Site Runoff Control)</li> <li>• California Green Building Code, Sections 5.508.1.2 and 5.508.2 (Enhanced Refrigerant Management)</li> <li>• California Green Building Code, Section 5.504.4 (Finish Material Pollutant Control: Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring)</li> <li>• San Francisco Building Code Section 3111.3; California Green Building Code, Section 5.503.1 (Wood Burning Fireplace Ordinance)</li> <li>• San Francisco Health Code, Article 30 (Regulation of Diesel Backup Generators)</li> </ul>



## MITIGATION MONITORING &amp; REPORTING PROGRAM

TABLE C – APPLICABLE REGULATIONS

IMPACT	SIGNIFICANCE DETERMINATION	APPLICABLE REGULATIONS
<b>Utilities and Service Systems, Initial Study Section E11 and SEIR Section 5.7</b>		
<b>Impact UT-1:</b> The City's water service provider would have sufficient water supply available to serve the project from existing entitlements and resources, and would not require new or expanded water supply resources or entitlements.	LS	<ul style="list-style-type: none"> <li>Title 24 of the California Administrative Code, Part 11, California Green Building Code, Chapter 5, Non-residential Mandatory Measures (Water Efficiency)</li> <li>San Francisco Building Inspection Commission Code, Green Building Code, Chapter 5, Non-residential Requirements (Water Efficiency)</li> </ul>
<b>Impact UT-3:</b> The proposed project would be served by landfills with sufficient permitted capacity to accommodate the project's solid waste disposal needs.	LS	<ul style="list-style-type: none"> <li>San Francisco Zero Waste Goal (75 Percent Waste Diversion from Landfills)</li> <li>San Francisco Construction and Demolition Waste Ordinance No. 27-06 (Recycling of Construction and Demolition Debris)</li> <li>San Francisco Food Service Waste Reduction Ordinance (Ban on Polystyrene Containers; Requires Recyclable Containers)</li> <li>San Francisco Mandatory Recycling and Composting Ordinance No. 100-09 (Separation of Waste Types)</li> <li>San Francisco Building Inspection Commission Code, Green Building Code, Chapter 5, Non-residential Requirements (Diversion of Demolition Debris)</li> </ul>
<b>Impact UT-4:</b> The proposed project would comply with federal, state, and local statutes and regulations related to solid waste.	LS	<ul style="list-style-type: none"> <li>California Integrated Waste Management Act of 1989 (Diversion of Wastes from Landfills)</li> <li>San Francisco Construction and Demolition Waste Ordinance No. 27-06 (Recycling of Construction and Demolition Debris)</li> <li>San Francisco Mandatory Recycling and Composting Ordinance No. 100-09 (Separation of Waste Types)</li> <li>San Francisco Building Inspection Commission Code, Green Building Code, Chapter 5, Non-residential Requirements (Diversion of Demolition Debris)</li> </ul>
<b>Impact C-UT-1:</b> The project, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative utilities and service systems impacts (water supply and solid waste).	LS	<ul style="list-style-type: none"> <li>Title 24 of the California Administrative Code, Part 11, California Green Building Code, Chapter 5, Non-residential Mandatory Measures (Water Efficiency)</li> <li>San Francisco Building Inspection Commission Code, Green Building Code, Chapter 5, Non-residential Requirements (Water Efficiency and Diversion of Demolition Debris)</li> <li>California Integrated Waste Management Act of 1989 (Diversion of Wastes from Landfills)</li> <li>San Francisco Construction and Demolition Waste Ordinance No. 27-06 (Recycling of Construction and Demolition Debris)</li> <li>San Francisco Mandatory Recycling and Composting Ordinance No. 100-09 (Separation of Waste Types)</li> </ul>



## MITIGATION MONITORING &amp; REPORTING PROGRAM

TABLE C – APPLICABLE REGULATIONS

IMPACT	SIGNIFICANCE DETERMINATION	APPLICABLE REGULATIONS
<b>Hydrology and Water Quality, Initial Study Section E15 and SEIR Section 5.9</b>		
<b>Impacts HY-1:</b> The project would not violate water quality standards or otherwise substantially degrade water quality with respect to construction activities, including construction dewatering.	LS	<ul style="list-style-type: none"> <li>General NPDES Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ (Erosion)</li> <li>San Francisco Public Works Code, Article 4.1, as supplemented by Order No. 158170 (Groundwater Discharges)</li> </ul>
<b>Impact HY-1a:</b> The project would not violate water quality standards or otherwise substantially degrade water quality with respect to construction-related dewatering.	LS	<ul style="list-style-type: none"> <li>San Francisco Public Works Code, Article 4.1, as supplemented by Order No. 158170 (Groundwater Discharges)</li> <li>VOC and Fuel General NPDES permit, Order Number R2-2012-0012 (Groundwater Discharges)</li> </ul>
<b>Impact HY-3:</b> The project would not alter the existing drainage pattern of the area in a manner that would result in substantial erosion, siltation, or flooding on- or off-site, and the project would not substantially increase the rate or amount of surface runoff that would result in flooding on- or off-site.	LS	<ul style="list-style-type: none"> <li>San Francisco Public Works Code, Article 4.2, Section 147 (Storm Water Discharges)</li> <li>San Francisco Storm Water Design Guidelines (Storm Water Discharges)</li> </ul>
<b>Impact HY-5:</b> The project would not expose people or structures to a significant risk of loss, injury or death involving inundation by seiche or tsunami.	LS	<ul style="list-style-type: none"> <li>Title 24 of the California Administration Code, Part 2, California Building Code, Chapter 16 – Structural Design</li> <li>San Francisco Building Inspection Commission Code, Building Code, Chapter 16 - Structural Design</li> </ul>
<b>Impact HY-6:</b> Operation of the proposed project could exceed the wastewater treatment requirements of the NPDES permit for the SEWPCP, violate water quality standards or waste discharge requirements, otherwise substantially degrade water quality as a result of changes in wastewater and storm water discharges to the Bay, or exceed the capacity of the separate storm water system constructed in Mission Bay, or provide a substantial source of polluted runoff. Operation of the proposed project would not contribute to a substantial increase in combined sewer discharges.	LSM	<ul style="list-style-type: none"> <li>NPDES Permit No. CA0037664, Order No. R2-2013-0029, for City and County of San Francisco Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities and Wastewater Collection System (Contribution to Combined Sewer Discharges and Effluent Discharges from SEWPCP)</li> <li>San Francisco Public Works Code, Article 4.1 (Effluent Discharges from SEWPCP)</li> <li>General NPDES Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer System (MS4s), SWRCB Order No. 2003-0005-DWQ (Storm Water Discharges)</li> <li>San Francisco Public Works Code, Article 4.2, Section 147 (Storm Water Discharges)</li> <li>San Francisco Storm Water Design Guidelines (Storm Water Discharges)</li> <li>San Francisco Health Code, Article 6, Garbage and Refuse (Litter)</li> </ul>
<b>Impact C-HY-1:</b> The project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would not result in a considerable contribution to cumulative impacts on hydrology and water quality with respect to construction activities, dewatering, groundwater supplies, drainage pattern, flooding, seiche or tsunami.	LS	<ul style="list-style-type: none"> <li>General NPDES Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ (Erosion)</li> <li>San Francisco Public Works Code, Article 4.1, as supplemented by Order No. 158170 (Groundwater Discharges)</li> <li>VOC and Fuel General NPDES permit, Order Number R2-2012-0012 (Groundwater Discharges) ( Per Impact HY-1a)</li> </ul>



## MITIGATION MONITORING &amp; REPORTING PROGRAM

TABLE C – APPLICABLE REGULATIONS

IMPACT	SIGNIFICANCE DETERMINATION	APPLICABLE REGULATIONS
<b>Hydrology and Water Quality, Initial Study Section E15 and SEIR Section 5.9 (cont.)</b>		
<b>Impact C-HY-1 (cont.)</b>		<ul style="list-style-type: none"> <li>San Francisco Public Works Code, Article 4.2, Section 147 (Storm Water Discharges)</li> <li>San Francisco Storm water Design Guidelines (Storm Water Discharges)</li> <li>Title 24 of the California Administration Code, Part 2, California Building Code, Chapter 16 – Structural Design (Tsunami)</li> <li>San Francisco Building Inspection Commission Code, Building Code, Chapter 16 - Structural Design (Tsunami)</li> </ul>
<b>Impact C-HY-2:</b> The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would not exceed the wastewater treatment requirements of the NPDES permit for the SEWPCP; violate water quality standards or waste discharge requirements, or otherwise substantially degrade water quality as a result of changes in wastewater and storm water discharges to the Bay; or exceed the capacity of the separate storm water system constructed in Mission Bay, or provide a substantial source of polluted runoff. Cumulative wet weather flows would not contribute to an increase in combined sewer discharges.	LS	<ul style="list-style-type: none"> <li>NPDES Permit No. CA0037664, Order No.R2-2013-0029, for City and County of San Francisco Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities and Wastewater Collection System (Contribution to Combined Sewer Discharges and Effluent Discharges from SEWPCP)</li> <li>San Francisco Public Works Code, Article 4.1, as supplemented by Order No. 158170 (Groundwater Discharges)</li> <li>General NPDES Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer System (MS4s), SWRCB Order No. 2003-0005-DWQ (Storm Water Discharges)</li> <li>San Francisco Public Works Code, Article 4.2, Section 147 (Storm Water Discharges)</li> <li>San Francisco Storm Water Design Guidelines (Storm Water Discharges)</li> <li>San Francisco Health Code, Article 6, Garbage and Refuse (Litter)</li> </ul>
<b>Cultural and Paleontological Resources, Initial Study Section E4</b>		
<b>Impact CP-4:</b> The proposed project would not disturb any human remains, including those interred outside of formal cemeteries.	LS	<ul style="list-style-type: none"> <li>California Public Resources Code Section 5097.98; California Administrative Code, Title 14, Section 15064.5(d) and (3). (Proper Notification and Intermment of Human Remains)</li> </ul>
<b>Geology and Soils, Initial Study Section E14</b>		
<b>Impact GE-1:</b> The proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, seismic ground shaking, seismically-induced ground failure, or landslides.	LS	<ul style="list-style-type: none"> <li>Title 24 of the California Administration Code, Part 2, California Building Code, Chapter 16 – Structural Design and Chapter 18 – Soils and Foundations</li> <li>San Francisco Building Inspection Commission Code, Building Code, Chapter 16 - Structural Design</li> <li>Seismic Hazards Mapping Act of 1990 (Assessment and Mitigation of Liquefaction Hazards)</li> </ul>
<b>Impact GE-2:</b> The project would not result in substantial erosion or loss of top soil.	LS	<ul style="list-style-type: none"> <li>General NPDES Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ</li> </ul>
<b>Impact GE-3:</b> The project would not be located on a geologic unit or soil that is unstable, or that could become unstable as a result of the project.	LS	<ul style="list-style-type: none"> <li>Title 24 of the California Administration Code, Part 2, California Building Code (Chapter 18 – Soils and Foundations)</li> <li>San Francisco Health Code, Article 12B (Installation of Geotechnical Borings)</li> </ul>



## MITIGATION MONITORING &amp; REPORTING PROGRAM

TABLE C – APPLICABLE REGULATIONS

IMPACT	SIGNIFICANCE DETERMINATION	APPLICABLE REGULATIONS
<b>Geology and Soils, Initial Study Section E14 (cont.)</b>		
<b>Impact GE-4:</b> The project would not create substantial risks to life or property as a result of location on expansive soils or other problematic soils.	LS	<ul style="list-style-type: none"> <li>Title 24 of the California Administration Code, Part 2, California Building Code, Chapter 18 – Soils and Foundations</li> </ul>
<b>Impact C-GE-1:</b> The project, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts related to geologic hazards.	LS	<ul style="list-style-type: none"> <li>Title 24 of the California Administration Code, Part 2, California Building Code (Chapter 16 – Structural Design, Chapter 18 – Soils and Foundations)</li> <li>San Francisco Building Inspection Commission Code, Building Code (Chapter 16, Structural Design)</li> <li>Seismic Hazards Mapping Act of 1990 (Assessment and Mitigation of Liquefaction Hazards)</li> <li>General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ</li> </ul>
<b>Hazards and Hazardous Materials, Initial Study Section E16</b>		
<b>Impact HZ-1:</b> The project could create a significant hazard through routine transport, use, or disposal of hazardous materials or result in a substantial risk of upset involving the release of hazardous materials.	LSM	<ul style="list-style-type: none"> <li>San Francisco Health Code, Article 21, Hazardous Materials</li> <li>San Francisco Health Code, Article 21a, Risk Management Program (Regulated Substances)</li> <li>San Francisco Health Code, Article 22, Hazardous Waste Management</li> <li>Asbestos Airborne Toxic Control Measure (Asbestos ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (Equivalent to FSEIR Mitigation Measure M-HZ-1b)</li> </ul>
<b>Impact HZ-2:</b> The project would be located on a site identified on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Excavation could also require the handling of potentially contaminated soil and groundwater, potentially exposing workers and the public to hazardous materials, or resulting in a release into the environment during construction.	LSM	<ul style="list-style-type: none"> <li>Covenant and Environmental Restriction on Property, Regional Water Quality Control Board, February 2000 and incorporated Risk Management Plan, Mission Bay Area, San Francisco, California. May 11, 1999. Environ Corporation</li> <li>Covenant and Environmental Restriction on Property, Regional Water Quality Control Board, February 2000 and incorporated Revised Risk Management Plan, Former Petroleum Terminals and Related Pipelines Located at Pier 64 and Vicinity, City and County of San Francisco, California. August 2006, BBL Environmental Services, Inc.</li> <li>San Francisco Health Code, Article 22a, Analyzing Soils for Hazardous Waste</li> <li>San Francisco Fire Code, Section 12.202(e)(1) (Fire and Emergency Procedures)</li> </ul>
<b>Impact HZ-3:</b> The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan or expose people or structures to a significant risk of loss, injury or death involving fires.	LS	
<b>Impact C-HZ-1:</b> The project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would not result in a considerable contribution to cumulative impacts related to hazardous materials.	LS	<ul style="list-style-type: none"> <li>San Francisco Health Code, Article 21, Hazardous Materials</li> <li>San Francisco Health Code, Article 21a, Risk Management Program (Regulated Substances)</li> <li>San Francisco Health Code, Article 22, Hazardous Waste Management</li> <li>San Francisco Health Code, Article 22a, Analyzing Soils for Hazardous Waste</li> </ul>



## MITIGATION MONITORING &amp; REPORTING PROGRAM

TABLE C – APPLICABLE REGULATIONS

IMPACT	SIGNIFICANCE DETERMINATION	APPLICABLE REGULATIONS
<b>Hazards and Hazardous Materials, Initial Study Section E16 (cont.)</b>		
<b>Impact C-HZ-1 (cont.)</b>		<ul style="list-style-type: none"> <li>Asbestos Airborne Toxic Control Measure (Asbestos ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations</li> <li>Covenant and Environmental Restriction on Property, Regional Water Quality Control Board, February 2000 and incorporated Risk Management Plan, Mission Bay Area, San Francisco, California. May 11, 1999. Environ Corporation</li> <li>Covenant and Environmental Restriction on Property, Regional Water Quality Control Board, February 2000 and incorporated Revised Risk Management Plan, Former Petroleum Terminals and Related Pipelines Located at Pier 64 and Vicinity, City and County of San Francisco, California. August 2006, BBL Environmental Services, Inc.</li> </ul>
<b>Minerals and Energy Resources, Initial Study Section E17</b>		
<b>Impact ME-1:</b> The project would not result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner.	LS	<ul style="list-style-type: none"> <li>Title 24 of the California Administrative Code, Part 6, Building Energy Efficiency Standards (Operational Electricity and Natural Gas Use)</li> <li>Title 24 of the California Administrative Code, Part 11, California Green Building Code, Chapter 5, Non-residential Mandatory Measures</li> <li>San Francisco Building Inspection Commission Code, Green Building Code, Chapter 5, Non-residential Requirements</li> </ul>
<b>Impact C-ME-1:</b> The project, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative impacts on energy resources.	LS	<ul style="list-style-type: none"> <li>Title 24 of the California Administrative Code, Part 6, Building Energy Efficiency Standards (Operational Electricity and Natural Gas Use)</li> <li>Title 24 of the California Administrative Code, Part 11, California Green Building Code, Chapter 5, Non-residential Mandatory Measures</li> <li>San Francisco Building Inspection Commission Code, Green Building Code, Chapter 5, Non-residential Requirements</li> </ul>



## MITIGATION MONITORING &amp; REPORTING PROGRAM

TABLE D – TRANSPORTATION MANAGEMENT PLAN MONITORING AND REPORTING PROGRAM SUMMARY

MANAGEMENT MEASURE	RESPONSIBILITY FOR IMPLEMENTATION	MANAGEMENT MEASURE SCHEDULE	MONITORING AND REPORTING RESPONSIBILITY	MONITORING ACTIONS/SCHEDULE AND VERIFICATION OF COMPLIANCE
Transportation Management Plan (TMP) and updates	Project Sponsor; SFMTA	Various	OCII	Periodic TMP Updates Annual TMP Monitoring Surveys and Reports prepared by Project Sponsor
Travel Demand Management Plan (TMP Chapter 4, Sections 4.1, 4.2, and 4.3)	Project Sponsor	First year of event center operation, and reviewed and revised annually thereafter	OCII	Annual TMP Monitoring Surveys and Reports prepared by Project Sponsor
Local/Hospital Access Plan A Local/Hospital Access Plan (L/HAP) to facilitate movements in and out to residents and employees in the UCSF and Mission Bay Area would be implemented for the pre-event period for all large weekday evening events at the event center (i.e., those events with more than 12,500 attendees that start between 6:00 and 8:00 p.m.). The L/HAP would be configured to discourage event attendees arriving by car from using portions of Fourth Street, Owens Street, UCSF campus internal roads such as Nelson Rising Lane, Campus Lane, Fifth Street, and local residential streets. As part of the L/HAP, special temporary and permanent signage would be positioned at appropriate locations to direct event traffic towards designated routes in order to access off-street parking facilities serving the event center and away from streets within the Local/Hospital Access Plan network. In addition, three PCOs would be stationed at key intersections (i.e., Fourth/16th, Owens/Mission Bay Traffic Circle, and Fourth/Nelson Rising Lane) before the start of an event to facilitate local driver access to their destinations. These three additional PCOs would also be available after the event to be positioned at the most effective locations to direct outbound pedestrians, bicyclists, and vehicles, as determined by the PCO Supervisor.	SFMTA	Pre event period for any weekday project event that starts between 6:00 and 8:00 p.m. with more than 12,500 attendees	OCII; SFMTA	Review of conditions during events by PCO Supervisor
Muni Special Event Transit Service Plan (TMP Chapter 4, Section 4.4)	SFMTA	All project events; different Transit Service Plan levels depending on attendance	OCII; SFMTA	Review of conditions during events by Muni Service Planning Supervisor



MITIGATION MONITORING &amp; REPORTING PROGRAM

TABLE D – TRANSPORTATION MANAGEMENT PLAN MONITORING AND REPORTING PROGRAM SUMMARY

MANAGEMENT MEASURE	RESPONSIBILITY FOR IMPLEMENTATION	MANAGEMENT MEASURE SCHEDULE	MONITORING AND REPORTING RESPONSIBILITY	MONITORING ACTIONS/SCHEDULE AND VERIFICATION OF COMPLIANCE
No Event Transportation Management Condition (TMP Chapter 6, Section 6.1)	SFMTA	On days without events at the event center,	OCII; SFMTA	PCOs during regular rounds
Small to Medium (Convention) Event Transportation Management Condition (TMP Chapter 6, Section 6.2)	Project Sponsor; SFMTA	Any daytime convention event or small daytime or evening event with less than 12,500 attendees	OCII; SFMTA	Review of conditions during events by PCO Supervisor
Medium to Large (Concert) Event Transportation Management Condition (TMP Chapter 6, Section 6.3)	Project Sponsor; SFMTA	Any evening event with between 12,500 and 16,000 attendees	OCII; SFMTA	Review of conditions during events by PCO Supervisor
Peak Event Transportation Management Condition (TMP Chapter 6, Section 6.4)	Project Sponsor; SFMTA	Any evening event with more than 16,000 attendees	OCII; SFMTA	Review of conditions during events by PCO Supervisor
Overlapping Events Transportation Management Plan (TMP Chapter 6, Section 6.5 and Section 2.2.5)	Project Sponsor; SFMTA	Any event with more than 12,500 attendees overlapping with an event at AT&T Park with more than 40,000 attendees. For daytime or evening overlaps.	OCII; SFMTA	Review of conditions during events by PCO Supervisor
Communication (TMP Chapter 9)	Project Sponsor; SFMTA; DPW	Prior to project opening, and periodic review annually	OCII; SFMTA	TMP monitoring by SFMTA Annual TMP Monitoring Surveys and Reports prepared by Project Sponsor
Monitoring, Refinement, and Performance Standards (TMP Chapter 10)	Project Sponsor	First year of event center operation, and reviewed and revised annually thereafter	OCII; SFMTA	TMP monitoring by SFMTA Annual TMP Monitoring Surveys and Reports prepared by Project Sponsor







## EXHIBIT 3





# **Appeal Filing to the Board of Supervisors In Its Capacity as Governing Body of the Successor Agency**

## **Environmental Leadership Projects California Environmental Quality Act (CEQA) Final Environmental Impact Report Appeal (Commission on Community Investment and Infrastructure Resolution No. 33-2015)**

The certification of a Final Environmental Impact Report (FEIR) for an Environmental Leadership Project by the Successor Agency to the former San Francisco Redevelopment Agency (Successor Agency, also known as the Office of Community Investment and Infrastructure along with its policy body the Commission on Community Investment and Infrastructure [CCII]) may be appealed to the Board of Supervisors (Board) pursuant to the terms of CCII Resolution No. 33-2015, approved on June 2, 2015

Any appeal filed pursuant to Resolution No. 33-2015 shall be filed in accordance with the procedures listed below. This document summarizes the process. Further details of this process and about Environmental Leadership Projects California Public Resources Code Sections 21178 et seq., are set forth in the text of CCII Resolution No. 33-2015, copies of which are available in the offices of the Clerk of the Board of Supervisors or at the following electronic link:

[www.sfocii.org/modules/showdocument.aspx?documentid=9140](http://www.sfocii.org/modules/showdocument.aspx?documentid=9140). In case of any conflict between any part of this document and CCII Resolution No. 33-2015, the provisions of CCII Resolution No. 33-2015 control. All references below to the Board are to the Board of Supervisors and all references to the Clerk of the Board are to the Clerk of the Board of Supervisors.

### **Who May File An Appeal:**

Only a person or entity that submitted comments to the Office of Community Investment and Infrastructure (OCII) or the Commission on Community Investment and Infrastructure (CCII), either in writing during the public review period of an Environmental Leadership Project EIR, or orally or in writing at or before the close of a CCII public hearing on the EIR, may appeal a CCII certification of an FEIR on an Environmental Leadership Project.

CCII Resolution No. 33-2015, Exhibit A, Para. (1).

### **Filing Deadline:**

The appellant or his or her agent must submit a letter of appeal to the Office of Community Investment and Infrastructure (OCII) Executive Director or his or her designee (collectively referred to as OCII Executive Director) within 10 calendar days of OCII's Environmental Leadership EIR certification and no later than 5:00 pm on that 10th day. No extension of this deadline may be granted.

CCII Resolution No. 33-2015, Exhibit A, Paras. (2), (3), and (5).

*(NOTE: If the 10<sup>th</sup> day falls on a Saturday, Sunday or holiday the appeal may be filed before 5:00 p.m. on the next business day. Also note that the appeal is filed with the OCII Executive Director, not the Clerk's Office.)*



**What and Where to File:**

The following must be filed with the OCII Executive Director at the address below:

Executive Director  
Office of Community Investment and Infrastructure  
1 South Van Ness, 5th Floor  
San Francisco, CA. 94103

*(NOTE: Filing is **not** to be made with the Clerk of the Board of Supervisors.)*

(1) A signed letter of appeal stating the specific grounds for appeal of OCII's Environmental Leadership EIR certification, including references to the written or oral comments that were timely submitted to OCII raising the issues identified in the appeal, and any other written materials in support of the appeal. The appeal may be based only on specific CEQA grounds alleged by any persons or entities before OCII makes its decision on the project. For purposes of these procedures, "project" has the meaning for such term set forth in CEQA Guidelines, Title 14 CCR, Division 6, Chapter 3, Section 15378, and "approval" has the meaning set forth for such term in Section 15352.

CCII Resolution No. 33-2015, Exhibit A, Paras. (4) and (5).

**Lodging of the appeal with the Clerk of the Board of Supervisors for purposes of scheduling an appeal hearing:**

After following the procedures established in CCII Resolution No. 33-2015, Exhibit A, Paragraph (6), the OCII Executive Director will advise the Clerk of the Board of the notice that he or she has accepted an appeal and provide a copy of the letter of appeal and a list of individuals and organizations that have requested notices relating to the project. The Clerk of the Board of Supervisors will then set the appeal for a public hearing before the Board in accordance with the "Hearing Date" provisions set forth below.

CCII Resolution No. 33-2015, Exhibit A, Para. (6).

*(NOTE: A decision by the OCII Executive Director rejecting an appeal is final and may not be appealed. CCII Resolution No. 33-2015, Exhibit A, Para. (6).)*



**Hearing Date:**

After the 10 days for filing an appeal with OCII has expired, the Clerk, if he or she has been notified that an appeal was accepted by the OCII Executive Director, will schedule an appeal hearing at a regular meeting of the full Board of Supervisors no less than 21 and no more than 45 days following the date(s) of the OCII Executive Director's notification of acceptance of an appeal to the Clerk of the Board. The Clerk will inform the appellant(s) of the hearing date and time after receipt of the OCII Executive Director's notification of acceptance of the appeal and the Clerk has scheduled the matter for hearing. If more than one appeal is filed on the same FEIR, the President of the Board may request the Clerk schedule a consolidated appeal hearing.

CCII Resolution No. 33-2015, Exhibit A, Paras. (6) and (8) and Administrative Code, Section 31.16 (b) (4).

**Hearing Notice:**

The Clerk will send notices to the appellant(s) and all organizations and individuals who previously have requested such notice in writing no less than 14 days prior to the date the appeal is scheduled to be heard by the Board. The appellant must provide the names and addresses in label format of interested parties that it wishes the Clerk to notify.

CCII Resolution No. 33-2015, Exhibit A, Paras. (6), (7), and (8) and Administrative Code, Section 31.16 (b) (4).

*(NOTE: If the OCII Executive Director has not done so already, he or she shall provide to the Clerk of the Board a list of individuals and organizations that have commented, in writing or orally during the public review period, on the decision or determination in a timely manner, and individuals who requested notice of an appeal, no less than 20 days prior to the scheduled hearing.)*

**Procedural Steps:**

The public, appellant, project sponsor and OCII may submit written materials to the Clerk of the Board no later than noon, 11 days prior to the hearing. Promptly, but no later than 11 calendar days before the scheduled hearing, the OCII Executive Director, if he or she has not done so already, will transmit copies of the environmental review document to the Clerk of the Board and make the administrative record available to the Board. Additional documentation the appellant would like the Board members to consider after the 11-day deadline must be delivered (18 hard copies and one electronic copy sent to [bos.legislation@sfgov.org](mailto:bos.legislation@sfgov.org)) to the Clerk no later than noon, eight days prior to the hearing. Materials submitted after the eight-day deadline will be marked as "received after the eight-day deadline" and placed in the Board file but not distributed.

CCII Resolution No. 33-2015, Exhibit A, Paras. (7) and (8) and Administrative Code, Section 31.16 (b) (5).

*(NOTE: The administrative record for any pending EIR for an Environmental Leadership Project can be found at the following electronic link [www.gsweventcenter.com](http://www.gsweventcenter.com).)*



**Decision:**

The Board by a majority vote of all of its members may affirm or reverse the certification of the FEIR by CCII. The Board will act on the appeal within 30 days of the date scheduled or within 40 days if the Board does not hold at least three regular Board meetings within 30 days of the scheduled hearing. If the full Board is not present, the Board may postpone a decision until the full Board is present. The Board may not postpone the decision on the appeal for more than 90 days following expiration of the time for appeal.

Administrative Code, Section 31.16 (b) (7) and (8).

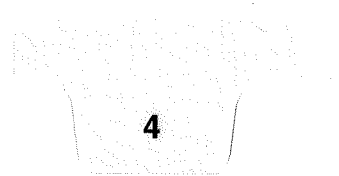
**Continuances:**

Only the Board of Supervisors, acting as a body (and not the Clerk of the Board), may continue the appeal hearing or grant a written request for continuance. A written request must be submitted by an appellant and the project sponsor, in advance, for the Board's consideration. Administrative Code, Section 31.16 (b) (7).

**Contact:**

Office of the Clerk of the Board/Legislative Clerk  
(415) 554-5184 or (415) 554-4445







## EXHIBIT 4





November 10, 2015

Mr. Tom Lippe  
Law Offices of Thomas N. Lippe, APC  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Responses to Comment on Draft Subsequent Environmental Impact Report for Event Center and Mixed Use Development at Mission Bay Blocks 29-32. SCN:2014112045**

P15003

Dear Mr. Lippe:

This is a continuation of my November 2, 2015 review of the Responses to Comment ("the RTC") on the Draft Subsequent Environmental Impact Report (hereinafter "the DSEIR") on the above referenced Project in the City and County of San Francisco (hereinafter "the City"). As I was a commenter on the DSEIR in regard to matters involving transportation and circulation in a letter dated July 26, 2015 which was transmitted as Exhibit 1 to your comment letter of July 27, 2015, my current comments focus on the responses to my own comments and yours on that subject. In addition, several others including representatives of BARTD, Caltrans, Caltrain, UCSF and other have filed comments that parallel and reinforce our own. I address the responses to those comments as well.

My qualifications to perform this review were thoroughly documented in my letter of comment on the DSEIR dated July 26, 2015 and are incorporated herein by reference.

This continuation of my comments focuses on emergency response and considerations of emergency access to the UCSF hospitals adjacent to the Project site.



## **Emergency Response and Hospital Access**

Our comments of November 2, 2015 concluded with the very brief remarks on SEIR Response TR – 9 which concerned comments on emergency response and UCSF hospital access. These additional comments offer more detailed observations on that response.

### Inadequacy of Analysis of Congestion and Delay at Critical Intersection of Sixteenth – Seventh and Mississippi Streets

Response TR-9 states that under existing-plus-Project conditions, the majority of the study intersection in the vicinity of the Project site and the UCSF Medical Center Phase One site are projected to operate at LOS E or better. The exception is the intersection of Seventh, Mississippi and Sixteenth Streets which would change from LOS E to dysfunctional LOS F. The problem with the response is twofold. First, this overburdened intersection is on the primary emergency access routes to the UCSF hospitals from the East Bay, Downtown San Francisco, SOMA and most of the central and northern parts of the City. Hence, the so called “exception” is actually a critical failure. Second, the SEIR’s analysis of the intersection understates the level of congestion there because it fails to account for the portion of time when train movements at the adjacent at-grade crossing block movements on Sixteenth. In the 5 –to – 6 pm commute peak hour, according to current Caltrain schedules, between 10 and 12 trains preempt this crossing, and 9 to 10 in the 6 – to – 7 pm hour. This means that the Sixteenth Street leg of the intersection will be blocked for about 9 minutes or more in the 5 –to-6 pm peak and about 7.5 minutes or more in the 6 – to – 7 pm hour. In other words, movements to and from Sixteenth east of the subject intersections will be blocked between 12.5 and 15 percent of the time in these hours – and the effect of this blockage wasn’t accounted for in the SEIR analysis.

### Lack of Any Traffic Analysis of Intersections of Eighth – Harrison and Eighth – Bryant and Related I-80 Ramps That Are on Critical Access Routes to UCSF Hospitals

Another problem with the SEIR response regarding the Project’s effects on emergency response and emergency access is that the SEIR failed to analyze the complex of the intersections of Eighth with Harrison and Eighth with Bryant and their related I-80 ramps at all. These heavily congested intersections are on the primary emergency access routes to the UCSF Mission Bay hospitals from the East Bay and from Downtown, most of the SOMA and northern San Francisco. The access route via these intersections on Eighth are particularly crucial whenever there is an overlapping Giants event that tends to preempt access via the Third/Fourth Street corridor.



SEIR's Underestimate of Numbers of Arena Event Attendees Traveling in 5-to-6 PM Evening Commute Peak Conceals the Extent of Impact on Emergency Services and Access to UCSF Hospitals

The SEIR, based on data on time of turnstile entry to the "paid" area of the Warriors current venue, Oracle Arena and at the Barclay Center in Brooklyn (home court of the Nets), that only about 5 percent of weekday arena event attendees traveling to an event starting at 7:30 pm would be traveling on the transportation system between 5 and 6 pm (the pm commute peak hour). Our comments of July 26, 2015 and November 2, 2015 presented cogent reasons why those turnstile based assumptions grossly understate the number of attendees to a 7:30 pm start basketball game would be traveling on the transportation system in the 5-to-6 pm peak commute hour. Those reasons include:

- The offset between getting off the transit system or out of a car in a parking spot and the time of actual passage through the ticket turnstiles, even for people who go straight in after arrival,
- The offset between arena turnstile passage time and the actual duration of travel time on the transportation system that would put people on the system during the peak hour.
- The offset between turnstile passage time and actual arrival time in the arena area for those who go into nearby restaurants and bars to eat a meal or have a drink before entering the arena or those who just hang around outside to meet up with friends traveling independently, especially perhaps to exchange a ticket.

The SEIR has ignored these considerations and persisted in assuming that only a tiny fraction of arena attendees would be traveling in the 5-to-6 pm evening commute peak hour.

In our prior comments, we have pointed out that national TV broadcasts of weeknight Warrior games which typically start at 6 pm, (and possibly national broadcasts of other arena events) would also cause a very high portion of event attendees to be traveling in the 5-to-6 pm commute peak hour and requested that this be analyzed as a separate case in the SEIR. The SEIR persists in refusing to consider this scenario.

Both of these considerations – the attendees who travel to the Project area long before passing through the arena turnstiles and the attendees coming to a national TV game start – would intensify emergency service and hospital access problems in the 5-to-6 pm commute peak hour well beyond anything analyzed in the SEIR and most importantly, compound the critical emergency service and UCSF hospital access problem issues related to the Sixteenth – Seventh – Mississippi – Caltrain



rail crossing complex as well as the Eighth – Harrison / Eighth – Bryant / I-80 ramps complex as described above.

#### The SEIR Refuses To Quantify Impacts on Emergency Vehicle Travel

Another commenter requested that the SEIR estimate emergency vehicle travel times with and without an event for the proposed Project. SEIR Response TR-9 refuses to do so. It claims that because the infrastructure supporting UCSF hospital facilities is currently incomplete, such a projection is not feasible. We note, however, that the SEIR has not hesitated to estimate LOS and delay times on the incomplete roadway network for ordinary predictions of Project traffic impacts (for instance, at Owens and Sixteenth without Owens yet connected through to Mariposa). This inconsistency is an unacceptable evasion. If the SEIR is unable to estimate emergency response time, then the entire analysis of effects on all emergency services is without foundation, uselessly conclusory and inadequate.

#### Public Relations Response To Emergency Access Impacts Irrelevant

SEIR Response TR-9 continues, stating that strategies to provide attendees with suggested driving routes to and from the 950 parking spaces within the Project site would alleviate interference of that traffic with emergency vehicle traffic. However, most of the on-site spaces would be held by VIP season ticket holders. These drivers will determine quickly various routes that work to their own advantage to minimize their own travel time, rather than following suggested routes to fine-tune recommended event access/egress routes that avoid primary emergency vehicle routes. The notion that pre-event and post-event recommended driving routes all could be revised based on monitoring is nonsense because knowledgeable regular attendees will follow their own notion of what works best for them, not public relations advisories.

#### Effects of Event Coordinator and PCO Management Doubtful

The next section of SEIR Response TR-9 indicates that at the times when northbound lanes of Third Street are closed in between Sixteenth and South Streets (mostly during post-event times), PCOs would be available to open the emergency barricades to allow northbound emergency vehicle traffic through. While the PCOs may get the emergency barricades out of the way, whether they can safely clear swarming pedestrians from the “closed” street section is an open question.

The response indicates that the Event Transportation Coordinator would inform emergency service dispatchers of the dates and times when there would be temporary closure of Third Street following an event so that emergency vehicles could be advised to take routes other than Third Street. However this is not very



useful if the location of the emergency dictates that emergency services really need to travel on Third Street.

This response also observes that drivers must comply with California vehicle code article 21806 requiring the drivers to clear a way to for authorized emergency vehicles, drive to the right road curb, stop, and remain stopped until the emergency vehicle has passed. This is a nonsensical evasion of the key issue which is that when traffic is queued in gridlock, it becomes very difficult and potentially dangerous for drivers to clear the way for emergency vehicles.

For smaller events where there are fewer PCOs, the response claims that PCOs would be stationed at key locations monitoring traffic conditions and could be reassigned to respond to conflicts between event center traffic and UCSF hospital access. It is questionable that PCOs could relocate quickly enough to be of effective assistance in an emergency access matter at another location.

#### Effective Facilitation of Privately Driven Vehicles in Emergencies Doubtful

The next section of the ResponseTR-9 claims that persons accessing UCSF medical Center emergency room and Urgent Care Center using private vehicles rather than authorized emergency vehicles would be able to use the transit-only lanes provided for the 22 Fillmore transit priority on 16th Street. This begs the questions of how anxious non-professional drivers, probably making their first emergency trip of this nature, would know the bus lanes are there, that they're eligible to use them, or how they will safely get around the lumbering, overloaded buses using the lanes and how they would be distinguished from casual bus lane violators.

#### Failure to Address Access to Hospitals for Doctors, Other Caregivers and Support Staff

UCSF's comments on the DSEIR included the observation that adverse traffic impacts on the hospitals is not limited to emergency vehicles. Doctors, other caregivers and support staff must have reasonably unobstructed access to and from the facilities at all times. Nowhere does the SEIR address this issue.

### **Conclusion**

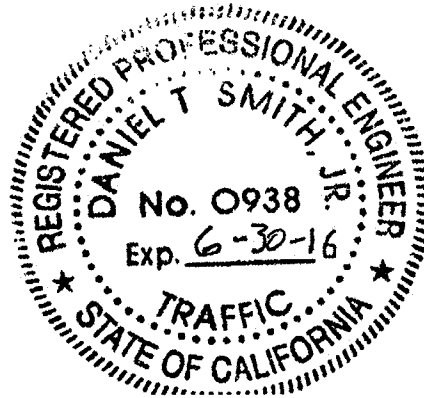
Because of all of the foregoing, the SEIR's conclusions regarding the Project's impacts on emergency access are unsupported and unsupportable. A more realistic appraisal of the Project's impacts on emergency service and hospital access is required as is a more realistic set of mitigation measures.



Mr. Tom Lippe  
November 10, 2015  
Page 6

Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.

TRAFFIC • TRANSPORTATION • MANAGEMENT

5311 Lowry Road, Union City, CA 94587 tel: 510.489.9477 fax: 510.489.9478







# EXHIBIT 5





November 10, 2015

Mr. Tom Lippe  
Law Offices of Thomas N. Lippe, APC  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Responses to Comment on Draft Subsequent Environmental Impact Report for Event Center and Mixed Use Development at Mission Bay Blocks 29-32. SCN:2014112045**

P15003

Dear Mr. Lippe:

This is a continuation of my November 2, 2015 review of the Responses to Comment ("the RTC") on the Draft Subsequent Environmental Impact Report (hereinafter "the DSEIR") on the above referenced Project in the City and County of San Francisco (hereinafter "the City"). As I was a commenter on the DSEIR in regard to matters involving transportation and circulation in a letter dated July 26, 2015 which was transmitted as Exhibit 1 to your comment letter of July 27, 2015, my current comments focus on the responses to my own comments and yours on that subject. In addition, several others including representatives of BARTD, Caltrans, Caltrain, UCSF and other have filed comments that parallel and reinforce our own. I address the responses to those comments as well.

My qualifications to perform this review were thoroughly documented in my letter of comment on the DSEIR dated July 26, 2015 and are incorporated herein by reference.

This continuation of my comments focuses on use of certain sites owned by the Port of San Francisco for parking in support of the Warriors Arena Project.



The revised parking analysis, SEIR Appendix TR-X, identifies additional parking areas to the south of the Project site that are not addressed in the DSEIR. We note that the nearer site, described as 'the Nineteenth Street site' in Appendix TR-X, is located within the Port of San Francisco's Port Waterfront Land Use Plan Southern Waterfront Subarea and designated as part of the Pier 70 Waterfront Opportunity Area. The site is within the Union Iron Works Historic District (listed on the National Register of Historic Places. Building 40 within the site has been determined to be a contributing resource to the Historic District although the Port has determined that its removal would not affect the historic significance of the District. The Port currently plans to construct a 250 space parking lot on the site. SEIR Appendix TR-X assumes the Port will have done so and that the parking lot will be operational prior to completion of the proposed Project and that it will be made available for use of Project arena event attendees. However, given the complications of the Historic designation, compatibility with the Pier 70 Plans and with the Port's own purposes in developing this parking for support of Pier 70 and the Historic District, the assumptions that this parking will be developed in advance of completion of the proposed Project and will be made available to support the Project's arena event parking over the long term are extremely optimistic and inconsistent with the good faith effort to disclose impact required by CEQA.

The other parking site identified in Appendix TR-X is located on the Southern Waterfront with its nearest corner 1.2 miles south of the nearest corner of the Project site. Portions of the site are located within the San Francisco Bay Conservation and Development Commission's (BCDC) shoreline band jurisdiction. The site is currently used for off-site storage of trailers supporting Moscone Center. The site could support development of an up to 800 space parking lot. Because of the distance from the proposed Project site, it would require shuttle bus service connections. Because considerations such as BCDC approval, development of a suitable place for relocating the off-site trailer parking that supports Moscone Center and whether parking this far from the proposed Project site and located in a remote industrial wasteland would be attractive to patrons have not been addressed, the suitability of this parking area remains speculative. Hence, Response TR-9's assumptions regarding dispersal of parking locations itself remains speculative.

## **Conclusion**

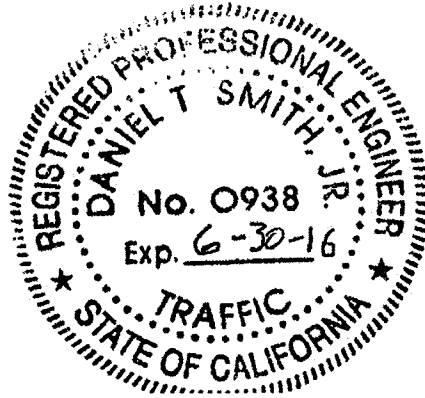
Because of the speculative nature of these parking proposals with respect to service of events at the proposed arena, they cannot be considered clear elements that support the project or disperse its traffic.



Mr. Tom Lippe  
November 10, 2015  
Page 3

Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.

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## EXHIBIT 6





November 13, 2015

Mr. Tom Lippe  
Law Offices of Thomas N. Lippe, APC  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Subsequent Environmental Impact Report for Event Center and  
Mixed Use Development at Mission Bay Blocks 29-32.  
SCN:2014112045**

P15003

Dear Mr. Lippe:

This is an addendum to my November 2, 2015 comments of the Responses to Comment ("the RTC") on the Subsequent Environmental Impact Report (hereinafter "the SEIR") on the above referenced Project in the City and County of San Francisco (hereinafter "the City"). This addendum focuses on additions to the Project that were not addressed in the DSEIR

My qualifications to perform this review were thoroughly documented in my letter of comment on the DSEIR dated July 26, 2015 and are incorporated herein by reference.

### **Central Subway/ T Third Electrical Power Distribution System Expansion**

The Central Subway / T Third electrical power distribution system expansion is included in the proposed Project to provide additional traction power for expanded frequencies of LRT service associated with new special event operations. This traction power expansion feature would provide two new circuits from the existing King Street substation for the inbound and outbound circuits of the Central Subway / T Third. Providing duct banks for the new electrical connection for King Substation and the Central Subway line would involve trenching in the eastbound and westbound travel lanes of King Street between Second and Fourth Streets. This trenching would take place over a 6-month



period and would require lane closures while trenching and duct installation is actively taking place. Although the power distribution system expansion had previously been identified by SFMTA as a desirable long-term action, it is now incorporated in the subject Event Center and Mixed Use Development Project.

As noted in the third paragraph of SEIR Volume 4, page 12-11, the trenching work and duct installation on King Street associated with the electrical power distribution system expansion was not analyzed in the DSEIR.

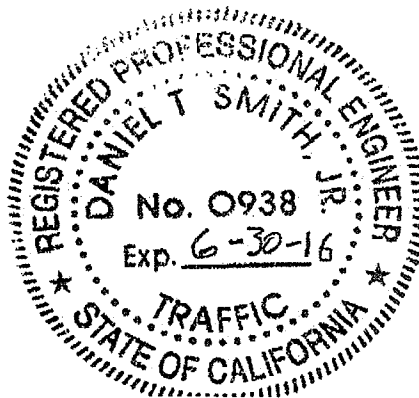
Under CEQA, if the project changes after publication of the Draft EIR, and these changes create a new significant impact not identified in the Draft EIR, or a substantial increase in severity of a significant impact that was identified in the Draft EIR, the lead agency must recirculate the draft EIR for public comment. (CEQA section 21092.1.). Although the FEIR makes the conclusory statement that this would not result in new or more severe impacts than previously disclosed, there is no analysis to support this conclusion, which defies logic that this always busy boulevard would be unimpacted by lane closures over a period of six months.

Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.  
President





## COMMISSION ON COMMUNITY INVESTMENT AND INFRASTRUCTURE

RESOLUTION NO. 33-2015

*Approved June 2, 2015*

### **ADOPTING PROCEDURES FOR FILING OF APPEALS OF THE CERTIFICATION OF A FINAL ENVIRONMENTAL IMPACT REPORT FOR ENVIRONMENTAL LEADERSHIP DEVELOPMENT PROJECTS UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

- WHEREAS, Prior to its dissolution, the Redevelopment Agency of the City and County of San Francisco (“Redevelopment Agency”) implemented numerous redevelopment plans approved by the Board of Supervisors and authorized under the California Community Redevelopment Law, Cal. Health & Safety Code §§ 33000 et seq. Under this state authority, the redevelopment plans established land use controls in project areas and did not generally rely on the San Francisco Planning Code or other local land use regulation, including Article 31 of the Administrative Code, unless a particular redevelopment plan required it; and
- WHEREAS, State law dissolved the Redevelopment Agency on February 1, 2012, (Part 1.85 of the California Health and Safety Code (commencing with Section 34170)) (the “Redevelopment Dissolution Law”), and provided, among other things, that successor agencies assumed the rights and obligations of the former Redevelopment Agency (with the exception of certain affordable housing assets). In particular, state law requires successor agencies to fulfill enforceable obligations that the former redevelopment agencies had entered into prior to June 28, 2011 (“Enforceable Obligations”); and
- WHEREAS, The Board of Supervisors, in its capacity as governing body of the Successor Agency, approved Ordinance No. 215-12 (Oct. 4, 2012) to implement Redevelopment Dissolution Law and established the Successor Agency Commission to which it delegated authority to exercise land use, development and design approval for “surviving redevelopment projects,” subject to specified reserved authority for the Board of Supervisors acting as the governing body of the Successor Agency; and
- WHEREAS, The Successor Agency to the Redevelopment Agency, commonly known as the Office of Community Investment and Infrastructure (“OCII”), is a legal entity separate from the City and County of San Francisco (“City”), has assumed the remaining rights and obligations of the former Redevelopment Agency, and has “succeed[ed] to the organizational status of the former redevelopment agency” with the authority “to complete any work related to an approved enforceable obligation,” Cal. Health & Safety Code § 34173 (g); and



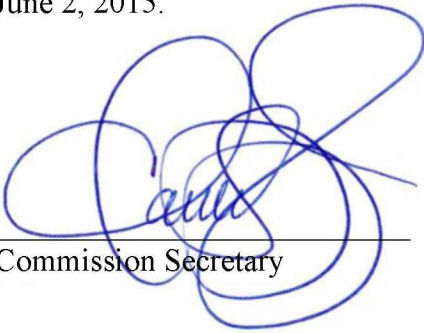
- WHEREAS, OCII has the continuing authority and obligation: (1) to exercise land use controls required under Enforceable Obligations (including the Mission Bay North Owner Participation Agreement (“OPA”), the Mission Bay South OPA, the Disposition and Development Agreement (“DDA”) for Hunters Point Shipyard (“HPS”) Phase 1, the DDA for Candlestick Point-HPS Phase 2 DDA, the Transbay Implementation Agreement, and other OPAs and DDAs for projects that are not yet complete, and (2) to enforce the land use controls under redevelopment plans and related development controls where the City has not requested the transfer of land use functions to the City. These redevelopment plans include Zone 1 of the Transbay Redevelopment Plan, Zone 1 of the Bayview Hunters Point Redevelopment Plan, the HPS Redevelopment Plan, the Mission Bay North and South Redevelopment Plans, the Rincon Point-South Beach Redevelopment Plan, and the Bayview Industrial Triangle Redevelopment Plan; and
- WHEREAS, The Redevelopment Dissolution Law provides, among other things, that successor agencies may take actions in compliance with enforceable obligations and for the purpose of winding down the redevelopment agency. Cal. Health & Safety Code § 34177.3; and
- WHEREAS, The OCII has a continuing need to review and approve development projects, including design and environmental review, as part of the wind down of redevelopment agencies; and
- WHEREAS, OCII is currently reviewing a multi-purpose event center and mixed used development that the Golden State Warriors, through its affiliate GSW Arena LLC, have proposed under the Mission Bay South Redevelopment Plan and the Mission Bay South OPA and that Governor Jerry Brown has certified, on April 30, 2015, as an “environmental leadership development project” (“Leadership Project”) under the Jobs and Economic Improvement Through Environmental Leadership Act of 2011 (“AB 900”). Cal. Public Resources Code §§ 21178 et seq., and
- WHEREAS, Under AB 900, OCII as the lead agency under the California Environmental Quality Act, must certify finally an environmental impact report for, and approve, a Leadership Project prior to January 1, 2016; and
- WHEREAS, To ensure adequate public participation and review of environmental impact reports for Leadership Projects (“Leadership Project EIRs”), OCII proposes special procedures for the filing of appeals associated with Leadership Project EIRs, including filing an appeal with OCII within ten days of the Final EIR certification and requiring OCII to review the appeal for sufficiency and completeness and to transmit the appeal to the Clerk of the Board of Supervisors; and
- WHEREAS, OCII proposes that the Board of Supervisors, acting in its capacity as the governing body for the Successor Agency, follow standards and procedures for



scheduling and conducting a public hearing that it has previously established for similar appeals of CEQA decisions by the Planning Commission or other City agencies. NOW THEREFORE BE IT,

RESOLVED, that the Commission on Community Investment and Infrastructure hereby adopts the Procedures for Appeal of EIR Certifications of Environmental Leadership Development Projects approved by the Office of Community Investment and Infrastructure, attached as Exhibit A to this Resolution.

I hereby certify that the foregoing resolution was adopted by the Commission at its meeting of June 2, 2015.



Commission Secretary



## **Procedures for Appeal of EIR Certifications of Environmental Leadership Development Projects approved by the Office of Community Investment and Infrastructure**

This policy establishes the procedures under which the Successor Agency to the Redevelopment Agency of the City and County of San Francisco, acting through the Office of Community Investment and Infrastructure, or its Commission (collectively referred to as "OCII"), will provide that OCII's certification of an environmental impact report for a qualifying Environmental Leadership Development Project under the Jobs and Economic Improvement Through Environmental Leadership Act of 2011, Cal. Public Resources Code §§ 21178 et seq. ("Environmental Leadership EIR" or "EIR") may be appealed to the Board of Supervisors (the "Board"). The appeal procedures are as follows:

- (1) Only persons or entities that submit comments on a project either in writing during the public review period of an Environmental Leadership EIR, or orally or in writing at or before the close of OCII's public hearing, may appeal OCII's EIR certification to the Board.
- (2) The appellant shall submit a letter of appeal to the OCII Executive Director or his or her designee (collectively referred to as "OCII Executive Director") within 10 calendar days of OCII's Environmental Leadership EIR certification. If the 10<sup>th</sup> day is a weekend or holiday, the appellant must submit the letter of appeal no later than the next business day.
- (3) A letter of appeal shall be timely filed only if it is received by the OCII Executive Director no later than 5:00 PM on the day the letter of appeal must be submitted under paragraph (2).
- (4) The letter of appeal must state the specific grounds for appeal of OCII's Environmental Leadership EIR certification and include references to the written or oral comments that were timely submitted to OCII raising the issues identified in the appeal, and any other written materials in support of the appeal. The appeal may be based only on specific CEQA grounds alleged by any persons or entities before OCII makes its decision on the project. For purposes of these procedures, "project" has the meaning set forth in CEQA Guidelines, Title 14 CCR, Division 6, Chapter 3, Section 15378 and "approval" has the meaning set forth in Section 15352.
- (5) The appellant must sign the letter of appeal, or may have an agent sign and file an appeal on the appellant's behalf.
- (6) Upon receiving an appeal, the OCII Executive Director must determine whether the appeal has been filed in a timely manner and otherwise complies with the requirements of these procedures. Within five business days of the filing of the appeal, the OCII Executive Director must mail notice to the appellant of OCII's acceptance or rejection of the appeal. If the appeal is accepted, at the same time, the OCII Executive Director must advise the Clerk of the Board of the notice of OCII's acceptance of the appeal, request that the Clerk set the appeal for a public hearing before the Board, and provide a copy of the letter of appeal and a list of individuals and organizations that have requested notices relating to the project. A decision by the OCII Executive Director rejecting an appeal is final and may not be appealed.



No further action is required by the OCII Executive Director or OCII for a letter of appeal that has been rejected.

- (7) Once the Clerk of the Board has scheduled the appeal for public hearing, the OCII Executive Director must promptly, but no later than 11 calendar days before the scheduled hearing, transmit copies of the environmental review document to the Clerk of the Board and make the administrative record available to the Board. Also, the OCII Executive Director must otherwise assist the Clerk of the Board in accordance with any procedures established by the Clerk of the Board for such appeals.
- (8) In adopting these procedures, OCII recognizes that the Board, in considering any appeal of a OCII's Environmental Leadership EIR certification, may follow the standards and procedures for a hearing that the Board has established for similar appeals of CEQA decisions by the Planning Commission or other City agencies.
- (9) If the Board reverses OCII's Environmental Leadership EIR certification, OCII must take further action under CEQA in compliance with the Board's appeal findings. Any further appeal from a subsequent CEQA decision by OCII after such remand shall be limited to the adequacy of changes made by OCII in response to the Board's findings relating to the initial appeal.
- (10) If the Board affirms OCII's Environmental Leadership EIR certification, the date of the final EIR shall be the date upon which OCII first certified the EIR and any actions approving the project made prior to the appeal decision shall be deemed valid.
- (11) The date the project shall be considered finally approved must occur no earlier than (1) the expiration date of the appeal period if no appeal is filed, (2) the date the OCII Executive Director rejects the appeal, or (3) the date the Board denies the appeal.
- (12) After OCII has decided to approve the project and the project is considered finally approved as provided for Paragraph 11, in accordance with CEQA procedures, and upon the payment of required fees by the project sponsor, the OCII Executive Director shall file a notice of determination with the County Clerk for an environmental impact report. If required by CEQA, the notice of determination shall also be filed with the California Office of Planning and Research. When the OCII Executive Director files a notice of determination with the county clerk or the California Office of Planning and Research or both, OCII also shall post a copy of the notice of determination in the offices of OCII and on OCII's website, and mail a copy of the notice of determination to organizations and individuals who previously have requested such notice in writing.



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**COMMISSION ON COMMUNITY INVESTMENT AND INFRASTRUCTURE**

**RESOLUTION NO. 69-2015**

*Adopted November 3, 2015*

**CERTIFYING THE FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT  
FOR THE GOLDEN STATE WARRIORS EVENT CENTER AND MIXED-USE  
DEVELOPMENT ON BLOCKS 29-32 IN MISSION BAY SOUTH UNDER THE  
CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") AND THE CEQA  
GUIDELINES; MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA**

WHEREAS, The Commission on Community Investment and Infrastructure, ("Commission"), the successor agency to the San Francisco Redevelopment Agency ("Successor Agency"), takes the following certification action in compliance with the California Environmental Quality Act ("CEQA"), the California Public Resources Code Sections 21000 et seq., and the CEQA Guidelines, 14 Cal. Code Reg. Sections 15000 et seq. ("CEQA Guidelines") and acting in its capacity as lead agency under CEQA Section 21067; and,

WHEREAS, On September 17, 1998, the Commission of the former Redevelopment Agency of the City and County of San Francisco ("Redevelopment Commission") by Resolution No. 182-98, and the San Francisco Planning Commission, by Resolution No. 14696, together acting as co-lead agencies for conducting environmental review for the Redevelopment Plans for the Mission Bay North Redevelopment Project Area and the Mission Bay South Redevelopment Project Area (the "Plans"), the Mission Bay North Owner Participation Agreement ("North OPA") and the Mission Bay South Owner Participation Agreement ("South OPA"), and other permits, approvals and related and collateral actions (the "Mission Bay Project"), certified the Final Subsequent Environmental Impact Report ("Mission Bay FSEIR") (State Clearinghouse Number 97092068), as a program EIR for Mission Bay North and South pursuant to CEQA and CEQA Guidelines Sections 15168 (Program EIR) and 15180 (Redevelopment Plan EIR). The Mission Bay FSEIR document provided programmatic environmental review of the overall Mission Bay Redevelopment Plan (consisting of the approximately 300-acre Mission Bay North and South Redevelopment Plan Areas); and,

WHEREAS, On the same day, the Redevelopment Commission adopted Resolution No. 183-98, which adopted environmental findings, including a mitigation monitoring and reporting program ("MMRP") and a statement of overriding considerations, in connection with the approval of the Plans and other Mission Bay Project approvals, and adopted Resolution No. 190-98, approving the Redevelopment Plan for the Mission Bay South Redevelopment Project Area ("Plan") and Resolution No. 193-98 authorizing execution of the South OPA and related documents between the Redevelopment Agency and the Mission Bay Master Developer (originally Catellus Development Corporation and now FOCIL-MB, LLC, the successor to Catellus Development Corporation); and,



WHEREAS, On October 19, 1998, the Board of Supervisors adopted Motion No. 98-132 affirming certification of the Mission Bay FSEIR by the Planning Commission and the Redevelopment Agency, and Resolution No. 854-98 adopting environmental findings, including an MMRP and a statement of overriding considerations, for the Mission Bay Project. On November 2, 1998, the San Francisco Board of Supervisors (“Board of Supervisors”), by Ordinance No. 335-98, adopted the Plans; and,

WHEREAS, On February 1, 2012, state law dissolved the Former Redevelopment Agency and required the transfer of certain of its assets and obligations to the Successor Agency, and on June 27, 2012, state law clarified that successor agencies are separate public entities, Cal. Health & Safety Code §34170 et seq. (“Redevelopment Dissolution Law”); and,

WHEREAS, Redevelopment Dissolution Law required creation of an oversight board to the successor agency and provided that with approval from its oversight board and the State Department of Finance (“DOF”), a successor agency may continue to implement “enforceable obligations” such as existing contracts, bonds and leases, that were executed prior to the suspension of redevelopment agencies’ activities. On January 24, 2014, DOF finally and conclusively determined that the Mission Bay North and South Owner Participation Agreements and Mission Bay Tax Increment Allocation Pledge Agreements are enforceable obligations pursuant to Health and Safety Code Section 34177.5(i); and,

WHEREAS, On October 2, 2012, the Board of Supervisors of the City, acting as the governing body of the Successor Agency, adopted Ordinance No. 215-12 (the “Implementing Ordinance”), which Implementing Ordinance was signed by the Mayor on October 4, 2012, and which, among other matters: (a) acknowledged and confirmed that the Successor Agency is a separate legal entity from the City, and (b) established this Commission and the Office of Community Investment and Infrastructure (“OCII”) and delegated to the Commission the authority to (i) act in place of the Redevelopment Agency Commission to, among other matters, implement, modify, enforce and complete the Redevelopment Agency’s enforceable obligations, (ii) approve all contracts and actions related to the assets transferred to or retained by the Successor Agency, including, without limitation, the authority to exercise land use, development, and design approval, consistent with applicable enforceable obligations, and (iii) take any action that the Redevelopment Dissolution Law requires or authorizes on behalf of the Successor Agency and any other action that this Commission deems appropriate, consistent with the Redevelopment Dissolution Law, to comply with such obligations; and,

WHEREAS, The Board of Supervisors’ delegation to this Commission includes the authority to act as the lead agency that administers environmental review for private projects in Mission Bay North and South Redevelopment Plan Areas in compliance with the requirements of CEQA and the CEQA Guidelines, including CEQA Section 21067; and,



- WHEREAS, The proposed project is the Golden State Warriors Event Center and Mixed-Use Development at Mission Bay South Blocks 29-32, with the MUNI UCSF/Mission Bay Station Variant and the Third Street Plaza variant, and related actions ("Event Center Project" or "Project"), as described in Chapter 3 of the Final Subsequent Environmental Impact Report ("FSEIR"). The Project Sponsor is GSW Arena LLC ("GSW"), an affiliate of the Golden State Warriors, LLC, which owns and operates the Golden State Warriors National Basketball Association team. GSW proposes to construct a multi-purpose event center and a variety of mixed uses, including office, retail, open space, and structured parking on an approximately 11-acre site on Bocks 29-32. The Project site is bounded by South Street on the north, Third Street on the west, 16th Street on the south, and by the future planned realigned Terry A. Francois Boulevard on the east; and
- WHEREAS, In compliance with CEQA and the CEQA Guidelines, OCII determined that the Project required preparation of a Subsequent Environmental Impact Report and OCII provided public notice of that determination to governmental agencies and organizations and persons interested in the proposed project on November 19, 2014, initiating a 30-day public scoping period, which ended on December 19, 2014 and included a public scoping meeting on December 9, 2014.
- WHEREAS, On June 5, 2015, OCII published and circulated the Draft Subsequent Environmental Impact Report (hereinafter "GSW DSEIR") to local, state, and federal agencies and to interested organizations and individuals. In addition, electronic copies of the GSW DSEIR were made available for public review on the OCII website and paper copies of the GSW DSEIR were made available for public review at OCII (1 South Van Ness Avenue, 5th Floor), the San Francisco Planning Department (1660 Mission Street, 1st Floor, Planning Information Counter), the San Francisco Main Library (100 Larkin Street) and San Francisco Library, Mission Bay Branch (960 4th Street).
- WHEREAS, Notices of availability of the GSW DSEIR and of the date and time of the public hearing were posted near the project site and published in a newspaper of general circulation in San Francisco on June 5, 2015.
- WHEREAS, On October 23, 2015, OCII published the Final Subsequent Environmental Impact Report ("FSEIR") for the Event Center Project consisting of the GSW DSEIR, the comments received during the review period, any additional information that became available after the publication of the GSW DSEIR, and the Responses to Comments document, all as required by law, copies of which are available through the Secretary of the Commission and at [www.gsweventcenter.com](http://www.gsweventcenter.com), and are incorporated herein by reference; and,
- WHEREAS, The administrative record that contains the GSW DSEIR, the FSEIR and all documents related to, or relied on in the preparation thereof has been prepared by OCII in accordance with the Jobs and Economic Improvement through Environmental Leadership Act (AB 900). Governor Jerry Brown certified the proposed project as an environmental leadership development project under this Act on April 30, 2015, and on May 27, 2015, the Joint Legislative Budget



Committee concurred with this certification. Therefore, this project is eligible for streamlined judicial review. Project EIR files have been made available for review by the Commission and the public. These files are available for public review at OCII at 1 South Van Ness Avenue, 5th Floor, can be found at [www.gsweventcenter.com](http://www.gsweventcenter.com) and are part of the record before the Commission; now therefore be it,

RESOLVED, The Commission hereby certifies the Final Environmental Impact Report identified as OCII Case No. ER-2014-919-97 (also identified as Planning Department Case No. 2014.1441E and State Clearinghouse No. 2014112045), Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 (hereinafter "Project"), based upon the following findings:

1. The Commission has reviewed and considered the FSEIR and hereby does find that the contents of said report and the procedures through which the FSEIR was prepared, publicized, and reviewed comply with the provisions of CEQA and the CEQA Guidelines.
2. The Commission hereby does find that the FSEIR concerning Case No. ER-2014-919-97, Event Center and Mixed-Use Development at Mission Bay Blocks 29-32, reflects its independent judgment and analysis, is adequate, accurate and objective, and that the Comments and Responses document contains no significant revisions to the GSW DSEIR, and hereby does certify the completion of said FSEIR in compliance with CEQA and the CEQA Guidelines.
3. The Commission, in certifying the completion of said FSEIR, hereby does find that the Project:
  - A. Will have a significant and unavoidable project-specific effect on the environment in the following areas:
    - 1) On days without a SF Giants game at AT&T Park:
      - a) Increased traffic congestion and traffic impacts at seven intersections that would operate at LOS E or LOS F.
      - b) Increased traffic congestion and traffic impacts at one freeway ramp location that would operate at LOS E or LOS F.
      - c) A substantial increase in transit demand that could not be accommodated by regional transit capacity that would result in a significant impact to North Bay and South Bay regional transit service (Caltrain, Golden Gate Transit and Water Emergency Transportation Authority (WETA)).
    - 2) On days with overlapping evening events at the project site and at



AT&T Park:


- a) Increased traffic and traffic impacts at ten additional intersections that would operate at LOS E or LOS F.
  - b) Increased traffic and traffic impacts at three freeway ramp locations that would operate at LOS E or LOS F.
  - c) A substantial increase in transit demand that could not be accommodated by regional transit capacity would result in a significant impact to East Bay, North Bay and South Bay regional transit service (Bay Area Rapid Transit, Caltrain, Golden Gate transit and WETA).
- 3) Without implementation of the Muni Special Event Transit Service Plan:
- a) Increased traffic congestion and traffic impacts at nine intersections that would operate at LOS E or LOS F.
  - b) Increased traffic congestion and traffic impacts at three freeway ramp locations that would operate at LOS E or LOS F.
  - c) Transit service operation impacts on the Muni T Third light rail line and the 22 Fillmore bus route.
  - d) Capacity utilization standard exceedances for Caltrain, Golden Gate Transit and WETA.
- 4) Increased ambient noise levels due to increased vehicular traffic along local roadways in the project vicinity and to crowd noise associated with events at the event center.
- 5) Construction-related emissions of criteria air pollutants (reactive organic gases and nitrogen oxides) that would exceed applicable significance thresholds.
- 6) Long-term operational emissions of criteria air pollutants (ROG and NOx) that would exceed applicable significance thresholds in connection with project operations, from sources including new vehicle trips, maintenance and operation of standby diesel generators, boilers and area sources such as landscape equipment and use of consumer products.
- B. Will result in unavoidable cumulatively considerable contributions to the following significant cumulative effects on the environment:
- 1) During peak hours, cumulative increased traffic congestion and



traffic impacts at 16 intersections that would operate at LOS E or LOS F.

- 2) Cumulative increased traffic congestion and traffic impacts at three freeway ramp locations that would operate at LOS E or LOS F.
  - 3) Cumulative capacity utilization exceedances for BART, Caltrain, Golden Gate Transit and WETA.
  - 4) Increased cumulative roadway traffic noise in the project vicinity.
  - 5) Increased cumulative construction-related and operational emissions of criteria air pollutants that would exceed applicable significance thresholds.
  - 6) Cumulative wastewater flows that could exceed the capacity of the Mariposa Pump Station and associated force mains and conveyance piping, and construction impacts resulting from future construction of improvements to the Mariposa Pump Station and associated facilities to expand wastewater treatment capacity.
4. The Commission has reviewed and considered the information contained in the FSEIR prior to approving the Project.

I hereby certify that the foregoing resolution was adopted by the Commission at its meeting of November 3, 2015.



Commission Secretary



## Carroll, John (BOS)

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**From:** BOS Legislation, (BOS)  
**Sent:** Thursday, December 03, 2015 3:35 PM  
**To:** 'dkelly@warriors.com'; CPC-WarriorsAdmin; Givner, Jon (CAT); Stacy, Kate (CAT); Malamut, John (CAT); Nuru, Mohammed (DPW); Sanguinetti, Jerry (DPW); Sweiss, Fuad (DPW); Storrs, Bruce (DPW); Sanchez, Scott (CPC); Jones, Sarah (CPC); Rodgers, AnMarie (CPC); Starr, Aaron (CPC); Pearson, Audrey (CAT); Rahaim, John (CPC); Bollinger, Brett (CPC); Ionin, Jonas (CPC); 'kaufhauser@warriors.com'; 'CMiller@stradasf.com'; BOS-Supervisors; BOS-Legislative Aides; 'Patrick Soluri'; 'Osha Meserve'; 'Susan Brandt-Hawley'; 'lippelaw@sonic.net'; Bohee, Tiffany (CII); Oerth, Sally (CII); Kern, Chris (CPC)  
**Cc:** Calvillo, Angela (BOS); Somera, Alisa (BOS); Carroll, John (BOS); BOS Legislation, (BOS)  
**Subject:** California Environmental Quality Act Appeal - Golden State Warriors Event Center Project - December 8, 2015 Hearing Date

Good afternoon,

Please find linked below a memo received by the Office of the Clerk of the Board from Remy Moose Manley, LLP, on behalf of the Project Sponsor, concerning the CEQA FSEIR Appeal of the proposed Golden State Warriors Event Center:

[Project Sponsor Brief - Received December 2, 2015](#)

**The appeal hearing for this matter is scheduled for a 3:00 p.m. special order before the Board on December 8, 2015.**

I invite you to review the entire matter on our [Legislative Research Center](#) by following the link below:

[Board of Supervisors File No. 150990](#)

Thank you,

**John Carroll**  
**Legislative Clerk**  
Board of Supervisors  
San Francisco City Hall, Room 244  
San Francisco, CA 94102  
(415)554-4445 - Direct | (415)554-5163 - Fax  
[john.carroll@sfgov.org](mailto:john.carroll@sfgov.org) | [bos.legislation@sfgov.org](mailto:bos.legislation@sfgov.org)



Click [here](#) to complete a Board of Supervisors Customer Service Satisfaction form.

The [Legislative Research Center](#) provides 24-hour access to Board of Supervisors legislation and archived matters since August 1998.

***Disclosures:** Personal information that is provided in communications to the Board of Supervisors is subject to disclosure under the California Public Records Act and the San Francisco Sunshine Ordinance. Personal information provided will not be redacted. Members of the public are not required to provide personal identifying information when they communicate with the Board of Supervisors and its committees. All written or oral communications that members of the public submit to the Clerk's Office regarding pending legislation or hearings will be made available to all members of the public for inspection and copying. The Clerk's Office does not redact any information from these submissions. This means that personal information—including names, phone numbers, addresses and similar information that a member of the public elects to submit to the Board and its committees—may appear on the Board of Supervisors website or in other public documents that members of the public may inspect or copy.*



## Carroll, John (BOS)

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**From:** Whit Manley <WManley@rmmenvirolaw.com>  
**Sent:** Thursday, December 03, 2015 2:50 PM  
**To:** BOS Legislation, (BOS)  
**Subject:** Appeal to Board of Supervisors -- December 8, 2015 hearing -- OCII Case No. ER 2014-919-97; Planning Department Case No. 2014.1441E – Event Center and Mixed-Use Development at Mission Bay Blocks 29-32  
**Attachments:** Letter to Board of Supervisors re. CBD v. CDFW (Dec 3, 2015) (00338909xB0A85).pdf; Attachment A -- S217763-2 (00338865xB0A85).pdf; Attachment B -- letter to Bill Wycko, San Francisco Planning Department, from Jean Roggenkamp, BAAQMD (October 28, 2010) (00338867xB0A85).pdf; Attachment C -- Draft\_SEIR\_References\_2015\_0522\_GHGChecklist-1 (00338877xB0A85).pdf  
**Categories:** 150990

To the Clerk of the Board of Supervisors:

Please find attached an electronic copy of a letter from the Project Sponsor, plus three attachments, concerning this appeal. 18 hard copies of this letter and attachments will be hand-delivered to the Clerk's office this afternoon.

Regards,

Whit Manley  
Counsel for Project Sponsor

WHITMAN F. MANLEY  
Attorney



**REMY | MOOSE | MANLEY** LLP

555 Capitol Mall, Suite 800 | Sacramento, CA 95814  
P (916) 443-2745 x 214 | F (916) 443-9017  
[wmanley@rmmenvirolaw.com](mailto:wmanley@rmmenvirolaw.com) | [www.rmmenvirolaw.com](http://www.rmmenvirolaw.com)

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Please consider the environment before printing this email.





REMY | MOOSE | MANLEY

LLP

Whitman F. Manley  
wmanley@rmmenvirolaw.com

December 3, 2015

BY HAND DELIVERY

Board President London Breed and  
Members of the Board of Supervisors,  
as Governing Body of the Office of Community  
Investment and Infrastructure (Successor Agency to the  
Former San Francisco Redevelopment Agency)  
c/o Clerk of the Board of Supervisors  
#1 Dr. Carlton B. Goodlett Place  
City Hall, Room #244  
San Francisco, CA 94102-4689

Re: OCII Case No. ER 2014-919-97; Planning Department Case No. 2014.1441E –  
Event Center and Mixed-Use Development at Mission Bay Blocks 29-32

Dear President Breed and Members of the Board:

As you know, on November 3, 2015, the Commission on Community Investment and Infrastructure (“OCII Commission”) certified the Final Subsequent Environmental Impact Report (“FSEIR” or “SEIR”) for the Golden State Warriors Event Center and Mixed-Use Development on Blocks 29-32 in Mission Bay South (the “Event Center” or “Project”). The OCII Commission also adopted findings under the California Environmental Quality Act (“CEQA”) and approved the Project based on the determination by the Executive Director of the Office of Community Investment and Infrastructure (“OCII”) that the Project is consistent with the Mission Bay South Redevelopment Plan.

As you also know, on November 13, 2015, the Mission Bay Alliance (“MBA” or “Appellant”) appealed to this Board the OCII Commission’s decision to certify the FSEIR. In response, OCII staff has put together a compendium of responses that, together with the FSEIR itself, demonstrate the lack of merit in the multitude of legal contentions made by MBA. Among the arguments raised by the Appellant are several directed at the manner in which the FSEIR dealt with the Project’s potential impacts relating to the generation of greenhouse gases (“GHGs”). The OCII staff compendium, as well as the FSEIR, explain why these particular contentions lack merit.

On behalf of the Project Sponsor, the GSW Arena LLC, an affiliate of Golden State Warriors, LLC, we wish to address these same issues in light of a recent California Supreme Court decision that did not exist at the time OCII staff prepared the FSEIR and appeal responses. This recent decision, issued on November 30, 2015, is called *Center for Biological Diversity v.*



*California Department of Fish and Wildlife* (“*CBD v. DFW*”). The decision addresses, among other issues, the respondent state agency’s approach to assessing the significance of GHG impacts caused by a major land use plan in Southern California. (A copy of this decision is provided at Attachment A.) As explained below, nothing in that decision casts doubt on the validity of the approach taken by OCII in the FSEIR.

In *CBD v. DFW*, the Supreme Court found a problem with the manner in which the California Department of Fish and Wildlife (“DFW”) had analyzed the GHG-related impacts of the project at issue, concluding that DFW’s administrative record did not contain substantial evidence supporting the finding that GHG emissions would be less-than-significant under the particular “significance threshold” used by DFW. More specifically, the Court held that, although the EIR “employs a legally permissible criterion of significance” (i.e., “whether the project was consistent with meeting statewide emission reduction goals”), the EIR’s “finding that the project’s emissions would not be significant under that criterion is not supported by a reasoned explanation based on substantial evidence.” (Slip Opinion, p. 2.) The Court determined that DFW erred in assuming that, because the “Scoping Plan” prepared by the California Air Resources Board pursuant to the Global Warming Solutions Act of 2006 (or “AB 32”) concluded that the State of California, as a whole, had to reduce its GHG emissions by 29 percent compared with a hypothetical “business as usual” scenario (in which no regulatory actions were taken to address climate change), the project at issue in that case would not have significant GHG-related impacts if the project itself also reduced its own GHG emissions by 29 percent compared with what would have occurred under a business as usual scenario. As the Court explained:

[T]he EIR’s deficiency stems from taking a quantitative comparison method developed by the Scoping Plan as a measure of the greenhouse gas emissions reduction effort required by the state as a whole, and attempting to use that method, without consideration of any changes or adjustments, for a purpose very different from its original design: To measure the efficiency and conservation measures incorporated in a specific land use development proposed for a specific location. The EIR simply assumes that the level of effort required in one context, a 29 percent reduction from business as usual statewide, will suffice in the other, a specific land use development. From the information in the administrative record, we cannot say that conclusion is wrong, but neither can we discern the contours of a logical argument that it is right.

(*Id.*, p. 22.)

Although the Court found DFW’s record to be inadequate to support the conclusion that GHG-related impacts were less-than-significant, the Court did provide guidance regarding potential alternative approaches to GHG impact assessment that other agencies around the State



might follow going forward in the future.<sup>1</sup> One such suggested approach is essentially the one that OCII followed in this case. The Court noted that local governments can rely on “geographically specific greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis.” (Slip Opinion, p. 26.) The Court stated that the Air Resources Board’s Scoping Plan “encourages local jurisdictions to develop “climate action plans” or greenhouse gas “emissions reduction plans” for their geographic areas, and several jurisdictions have adopted or proposed such plans as tools for CEQA streamlining.” (*Ibid.*) The Court also cited CEQA Guidelines section 15183.5 as providing local agencies with suggestions about how to go about preparing such plans. (*Ibid.*)

As the FSEIR and appeal responses explain, San Francisco has previously adopted various regulatory documents, ordinances, and plans of the kind mentioned by the Court; and the Project’s consistency with these regulatory commitments and requirements was the primary basis for concluding that the Project would *not* cause significant impacts associated with the generation of GHGs. As Volume 5 of the SEIR explains on page 13.14-6:

San Francisco has prepared its own Greenhouse Gas Reduction Strategy, which the [Bay Area Air Quality Management District or “BAAQMD”] has reviewed and concluded provides aggressive GHG reduction targets and comprehensive strategies that help the Bay Area move toward reaching the State’s AB 32 goals. San Francisco’s Greenhouse Gas Reduction Strategy identifies actions the City is implementing to achieve cleaner energy, energy conservation, and alternative transportation and solid waste policies. For instance, the City has implemented mandatory requirements and incentives that have measurably reduced GHG emissions; these actions include, but are not limited to, increasing the energy efficiency of new and existing buildings, installation of solar panels on building roofs, implementation of green building strategies, adoption of a zero waste strategy, a construction and demolition debris recovery ordinance, a solar energy generation subsidy, incorporation of alternative fuel vehicles in the City’s transportation fleet (including buses), and a mandatory recycling and composting ordinance. The Strategy identifies 42 specific regulations for new development that would reduce a project’s GHG emissions. San Francisco’s policies and programs have resulted in a reduction in GHG emissions to below 1990 levels, exceeding statewide AB 32 GHG reduction goals.

The SEIR analysis for determining the significance of GHG impacts is based on finding consistency of the project with San Francisco’s Greenhouse Gas Reduction Strategy. *Because the City’s local GHG reduction targets are more*

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<sup>1</sup> Notably, the Court’s suggested approaches are not intended to be an exclusive list, but merely an illustrative one. (See Slip Opinion, p. 24 “[w]e briefly address *some of the potential options* for DFW on remand”; “what follows is merely a description of *potential pathways* to compliance, depending on the circumstances of a given project”], italics added.)



*aggressive than those of the region or the State, consistency with the City's Greenhouse Gas Reduction Strategy necessarily demonstrates consistency with the State's GHG regulations, the Governor's executive orders, and the Bay Area 2010 Clean Air Plan.* If the project is consistent with the City's Greenhouse Gas Reduction Strategy, then the project's impacts related to GHG emissions would be considered less than significant.

(Italics added.)<sup>2</sup>

Importantly, in approving the Greenhouse Gas Reduction Strategy, the BAAQMD emphasized that the City was seeking GHG reductions substantially in excess of what might be considered the City's fair share of reductions under AB 32:

Bay Area Air Quality Management District (District) staff reviewed the City and County of San Francisco's (City's) Draft Greenhouse Gas Reduction Strategy (Strategy). We understand that the Strategy is a compilation of policies, programs and regulations that comprise San Francisco's greenhouse gas reduction efforts. The City's climate protection goal is to reduce the City's communitywide greenhouse gas (GHG) emissions 25% below 1990 levels by 2017. The Strategy includes a variety of documents characterizing the City's GHG emissions and describing approaches to reduce those emissions, including the City's Climate Action Plan.

The District applauds the City's proactive approach to reducing GHG emissions and supports its efforts in developing the GHG Reduction Strategy. The District's intent in creating the Qualified GHG Reduction Strategy as an operational threshold of significance in its CEQA Guidelines is to ensure that communities will develop in such a manner as to enable the State to meet its GHG reduction goals under AB 32. In its own GHG Reduction Strategy, the City has demonstrated that it is not only supporting the State in this endeavor, but is exceeding the State's own climate protection goals [to reduce GHG emissions levels to 1990 levels by the year 2020].

In some areas, the City has surpassed the minimum standard elements of a Qualified GHG Reduction Strategy as laid out in the District's CEQA Guidelines:

- the City's GHG reduction goal is more stringent than the State's AB 32 goal

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<sup>2</sup> The City's "Strategies to Address Greenhouse Gas Emissions" can be found on-line at <http://www.sf-planning.org/index.aspx?page=2627>. A copy of the City's 2010 plan is at [http://sfmea.sfplanning.org/GHG\\_Reduction\\_Strategy.pdf](http://sfmea.sfplanning.org/GHG_Reduction_Strategy.pdf).



- the City's 2008 GHG emissions inventory analysis and third party review indicates that the City is on track for meeting this aggressive target
- the City is committed to updating the GHG inventory every two years, exceeding the Guideline's recommendation that this be done a minimum of every five years
- the Strategy identifies 42 specific regulations required of new developments

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District staff believes the City's Strategy meets the criteria for a qualified GHG reduction strategy as described in the District's CEQA Guidelines. Aggressive GHG reduction targets and comprehensive strategies like San Francisco's help the Bay Area move toward reaching the State's AB 32 goals, and also serve as a model from which other communities can learn.

(Letter to Bill Wycko, San Francisco Planning Department, from Jean Roggenkamp, BAAQMD, October 28, 2010.)<sup>3</sup>

As this approval letter makes clear, San Francisco has undertaken one of the most aggressive GHG-reduction strategies in California (if not *the* most aggressive such strategy). Indeed, the City's overall strategy sets a 2017 goal that is substantially more aggressive than the State's goal for 2020. Moreover, the City is successfully implementing this strategy, and the progress to date has been real. As of 2010, the City had achieved a citywide reduction of GHG emissions of 14.5%, as compared to 1990 emissions; on a per-capita basis, the decline was 28%. (City and County of San Francisco, Climate Action Strategy – 2013 Update (October 21, 2013) (“2013 Update”), pp. 6-7.)<sup>4</sup> Indeed, the City is currently on a path to achieve its targets of 25% reductions in 2017, and 40% reductions in 2025. (2013 Update, p. 9.) Thus, requiring the Project to comply with all applicable elements of the strategy will translate into real reductions in GHG emissions, as compared to reductions that would not otherwise occur.

The Project's consistency with the City's Strategies to Address Greenhouse Gas Emissions is demonstrated within the administrative record for the Project – in a document entitled, “Compliance Checklist, Greenhouse Gas Analysis”; a copy of this document is at Attachment C. The checklist is specifically referenced in Volume 2 of the Draft SEIR on page 5.5-11, and is included in OCII's administrative record.

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<sup>3</sup> A copy of this letter is provided at Attachment B.

<sup>4</sup> A copy of the 2013 Update is included in OCII's administrative record for the Project. (See [http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2013\\_1021\\_SFE\\_ClimateActionStrategyUpdate.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2013_1021_SFE_ClimateActionStrategyUpdate.pdf).)



In addition to the *CBD v. DFW* case, in which the California Supreme Court encourages lead agencies to rely on compliance with plans for reducing GHGs as a basis for assessing the significance of proposed projects' GHG impacts, a number of Court of Appeal decisions in recent years have held that compliance with regulatory requirements from laws other than CEQA can often be a basis for mitigating environmental impacts to less than significant levels. (See, e.g., *Oakland Heritage Alliance v. City of Oakland* (2011) 195 Cal.App.4th 884, 910 [application of seismic codes sufficient to address geologic hazards in seismically active area where office buildings would be located]; *City of Maywood v. Los Angeles Unified School Dist.* (2012) 208 Cal.App.4th 362, 411-412 [compliance with regulatory standards as adequately addressing hazardous materials at school site].) Given the comprehensive nature of the requirements in the Strategies to Address Greenhouse Gas Emissions, the Project's obligation to comply with them is an independent conceptual ground for concluding that its GHG-related impacts are less than significant.

Although the SEIR does not rely on the Golden State Warriors' obligation to purchase GHG offsets as a basis for determining that GHG-related impacts were less than significant, it is worth noting that the Warriors have made such an obligation, as set forth in "Improvement Measure I-C-GG-1, Purchase Voluntary Carbon Credits." (See discussion on Draft EIR, Vol. 2, p. 5.5-11; see also Mitigation Monitoring and Reporting Program, p. MMRP-51 [Exhibit B to OCII Commission Resolution 70-15].) This obligation extends to GHGs generated through both the construction and operation of the proposed Event Center. The Warriors agreed to purchase these offsets as part of the process of obtaining from the State of California the status of an "Environmental Leadership Project" eligible for extra fast CEQA litigation. The "Improvement Measure" makes this obligation independently enforceable by OCII. As the Draft SEIR explains on page 5.5-6, only very "green" projects can qualify for designation as Environmental Leadership Projects:

Leadership projects include all of the following:

1. The project is residential, retail, commercial, sports, cultural, entertainment, or recreational in nature;
2. The project, upon completion, will qualify for LEED silver certification or better.
3. The project will achieve at least 10 percent greater transportation efficiency than comparable projects.
4. The project is located on an infill site and in an urbanized area.
5. The project is within a metropolitan planning organization for which a sustainable communities strategy or alternative planning strategy is in effect,



and the California Air Resources Board has accepted that the strategy meets the adopted greenhouse gas reduction targets.

The Warriors feel very confident that this Project will include the most environmentally friendly major sports facility ever built in the United States. The Draft SEIR (on pages 5.5-10 and 5.5-11) summarized the number of GHG-reducing obligations with which the Project must comply as follows:

The proposed project would comply with the following regulations or their equivalent: Commuter Benefits Ordinance; Emergency Ride Home Program; Transportation Management Programs (see Project Description and Appendix TMP); Transit Impact Development Fee to the extent applicable under the Mission Bay Redevelopment Plan; Jobs-Housing Linkage Program (residential uses less than 1/4 -mile north of the project site); Bicycle Parking requirements (the project would exceed these requirements and provide a total of 586 bicycle parking spaces); Fuel Efficient Vehicle and Carpool Parking (providing 51 carpool spaces and 51 fuel efficient and vehicle charging stations); San Francisco Green Building Requirements (increased energy efficiency, purchase of renewable energy credits, reduction of potable water consumption by about 35 percent, enhanced energy commissioning); San Francisco Stormwater Management Ordinance (low impact development practices including filtration basins, rain gardens, and approximately 50,000 square feet of self-treating green roofs); San Francisco Water Efficient Irrigation Ordinance (the project's landscaped areas include low-water use planting selections, use of sedum and allium-based green roof materials, and soil mix design for a high available water holding capacity); Mandatory Recycling and Composting Ordinance (paper, glass, corrugated cardboard, plastic, and metals would be collected on site for recycling, and recycling bins and composting containers would be located throughout the buildings); San Francisco Construction and Demolition Debris Recovery Ordinance (to be included as part of the construction specifications); Street Tree Planting Requirements for New Construction (the project includes 79 new street trees); Light Pollution Reduction (exterior lighting fixture selections will have minimum backlight/uplight/glare ratings as allowed by required illuminance levels); Construction Site Runoff Control (site is served by a separate storm sewer system and construction contractors would implement best management practices to comply with conditions of a site-specific stormwater pollution prevention plan); Enhanced Refrigerant Management; Finished Material Pollutant Control; and Regulation of Diesel Backup Generators.

These obligations, in a sense, are quite onerous; but the Warriors are happy to comply with them, as they reflect the environmental values of the people of San Francisco, as well as those of the Warriors organization itself.



In summary, nothing in the California Supreme Court's recent decision in *CBD v. DFW* casts any doubt over the legal adequacy of the SEIR's analysis of GHG-related impacts. OCII followed an approach that the Supreme Court has essentially blessed in conceptual terms. Although the Mission Bay Alliance, which has seemed to be always on the lookout for new legal arguments to make attacking the SEIR, may argue otherwise, we are confident that any such arguments are without merit.

Very truly yours,



Whitman F. Manley

List of Attachments

- A *Center for Biological Diversity v. California Department of Fish and Wildlife* (Cal. Supreme Court, Case No. S217763) (slip op. dated November 30, 2015)
- B Letter to Bill Wycko, San Francisco Planning Department, from Jean Roggenkamp, BAAQMD, October 28, 2010
- C San Francisco Planning Department, Compliance Checklist – Greenhouse Gas Analysis (May 22, 2015)



## IN THE SUPREME COURT OF CALIFORNIA

CENTER FOR BIOLOGICAL	)	
DIVERSITY et al.,	)	
	)	
Plaintiffs and Respondents,	)	
	)	S217763
v.	)	
	)	Ct.App. 2/5 B245131
CALIFORNIA DEPARTMENT OF	)	
FISH AND WILDLIFE,	)	
	)	Los Angeles County
Defendant and Appellant;	)	Super. Ct. No. BS131347
	)	
THE NEWHALL LAND	)	
AND FARMING COMPANY,	)	
	)	
Real Party in Interest	)	
and Appellant.	)	
_____	)	

This case presents three issues regarding the adequacy of an environmental impact report for a large land development in northwest Los Angeles County, each issue arising under the California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et seq.): (1) Does the environmental impact report validly determine the development would not significantly impact the environment by its discharge of greenhouse gases? (2) Are mitigation measures adopted for protection of a freshwater fish, the unarmored threespine stickleback, improper because they involve taking of the fish prohibited by the Fish and Game Code?



(3) Were plaintiffs' comments on two other areas of disputed impact submitted too late in the environmental review process to exhaust their administrative remedies under Public Resources Code section 21177?

We conclude, first, that as to greenhouse gas emissions the environmental impact report employs a legally permissible criterion of significance—whether the project was consistent with meeting statewide emission reduction goals—but the report's finding that the project's emissions would not be significant under that criterion is not supported by a reasoned explanation based on substantial evidence. Second, we conclude the report's mitigation measures calling for capture and relocation of the stickleback, a fully protected species under Fish and Game Code section 5515, subdivision (b)(9), themselves constitute a taking prohibited under subdivision (a) of the same statute. Finally, we hold that under the circumstances of this case plaintiffs exhausted their administrative remedies regarding certain claims of deficiency by raising them during an optional comment period on the final report.

## **I. FACTUAL AND PROCEDURAL BACKGROUND**

The California Department of Fish and Wildlife (DFW, formerly the Department of Fish and Game) and the United States Army Corps of Engineers prepared a joint environmental impact statement/environmental impact report (the EIR)<sup>1</sup> for two natural resource plans (the "Resource Management and

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<sup>1</sup> Federal participation in environmental evaluation was called for under the National Environmental Policy Act (NEPA; 42 U.S.C. § 4321 et seq.) because the proposed infrastructure requires permits from federal agencies. Both CEQA and NEPA provide for cooperation between state and federal agencies in environmental review of projects, including by the preparation of joint documents. (Pub. Resources Code, §§ 21083.6, 21083.7; 42 U.S.C. § 4332.) We generally refer to the joint document prepared in this case simply as the EIR because we discuss solely issues arising under CEQA.



Development Plan” and the “Spineflower Conservation Plan”) related to a proposed land development called Newhall Ranch. To be developed over about 20 years on almost 12,000 acres along the Santa Clara River west of the City of Santa Clarita, the proposed Newhall Ranch would consist of up to 20,885 dwelling units housing nearly 58,000 residents as well as commercial and business uses, schools, golf courses, parks and other community facilities. The project applicant and owner of Newhall Ranch is real party in interest the Newhall Land and Farming Company (Newhall).

Newhall Ranch’s potential environmental impacts were previously studied by the County of Los Angeles in connection with the county’s 2003 approval of a land use plan for the proposed development; the present EIR draws on but is independent of the environmental documentation for that approval. DFW acted as the lead state agency in preparing the EIR because the project (i.e., the Resource Management and Development Plan and the Spineflower Conservation Plan) called for DFW’s concurrence in a streambed alteration agreement and issuance of incidental take permits for protected species. Although DFW has direct authority only over biological resource impacts from the project, the agency attempts in the EIR to evaluate all environmental impacts from the project and the Newhall Ranch development that would be facilitated by project approval.

DFW and the United States Army Corps of Engineers (the Corps), the lead federal agency, issued a draft EIR in April 2009 and a final EIR in June 2010. In December 2010, DFW certified the EIR, made the findings required by CEQA as to significant impacts, mitigation, alternatives and overriding considerations, and approved the project. Of relevance here, DFW found that the project could significantly impact the unarmored threespine stickleback but that adopted mitigation measures would avoid or substantially lessen that impact, and that “taking into account the applicant’s design commitments and existing regulatory



standards,” Newhall Ranch’s emissions of greenhouse gases would have a less than significant impact on the global climate.

Plaintiffs challenged DFW’s actions by a petition for writ of mandate.<sup>2</sup> The superior court granted the petition on several grounds. The Court of Appeal reversed, rejecting all of plaintiffs’ CEQA claims. We granted plaintiffs’ petition for review.

## II. DISCUSSION

The general principles governing our review of DFW’s actions can be simply stated. In reviewing an agency’s nonadjudicative determination or decision for compliance with CEQA, we ask whether the agency has prejudicially abused its discretion; such an abuse is established “if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence.” (Pub. Resources Code, § 21168.5.)<sup>3</sup> In determining whether there has been an abuse of discretion, we review the agency’s action, not the trial court’s decision. “[I]n that sense appellate judicial review under CEQA is *de novo*.” (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 427 (*Vineyard Area Citizens*).)

On particular questions of CEQA compliance, however, the standard of review depends on “whether the claim is predominantly one of improper procedure or a dispute over the facts.” (*Vineyard Area Citizens, supra*, 40 Cal.4th at p. 435.) “While we determine *de novo* whether the agency has employed the

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<sup>2</sup> Plaintiffs are the Center for Biological Diversity, Friends of the Santa Clara River, Santa Clarita Organization for Planning the Environment, California Native Plant Society, and Wishtoyo Foundation/Ventura Coastkeeper.

<sup>3</sup> All further unspecified statutory references are to the Public Resources Code.



correct procedures, . . . we accord greater deference to the agency’s substantive factual conclusions. In reviewing for substantial evidence, the reviewing court ‘may not set aside an agency’s approval of an EIR on the ground that an opposite conclusion would have been equally or more reasonable,’ for, on factual questions, our task ‘is not to weigh conflicting evidence and determine who has the better argument.’ (*Laurel Heights [Improvement Assn. v. Regents of University of California]* (1988)] 47 Cal.3d [376,] 393.)” (*Ibid.*)

### **A. The EIR’s Determination the Project’s Greenhouse Gas Emissions Will Not Have a Significant Environmental Impact**

#### *1. Background*

In California’s landmark legislation addressing global climate change, the California Global Warming Solutions Act of 2006, Statutes 2006, Chapter 488, page 3419 (enacting Assem. Bill No. 32 (2005–2006 Reg. Sess.); hereafter referred to by its common shorthand name, A.B. 32), our Legislature emphatically established as state policy the achievement of a substantial reduction in the emission of gases contributing to global warming. (Health & Saf. Code, §§ 38500, 38501.) More specifically, A.B. 32 calls for reduction of such emissions to 1990 levels by the year 2020. (Health & Saf. Code, § 38550.) The law designates the California Air Resources Board (the Air Board) as the state agency charged with regulating greenhouse gas emissions (*id.*, § 38510) and calls for the Air Board to coordinate with other state agencies to implement the state’s reduction goal (*id.*, § 38501, subd. (f)).

Under A.B. 32, the Air Board was required to determine as accurately as possible the statewide level of greenhouse gas emissions in 1990 and to approve on that basis a statewide emissions limit to be achieved by 2020. (Health & Saf. Code, §38550) The Air Board was required to prepare and approve by January 1, 2009, a “scoping plan” for achieving the “maximum technologically feasible and



cost-effective” reductions in greenhouse gas emissions by 2020. (*Id.*, § 38561, subd. (a).)

In its 2008 Climate Change Scoping Plan, the Air Board explained that “[r]educing greenhouse gas emissions to 1990 levels means cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 15 percent from today’s levels.” (Air Resources Bd., Climate Change Scoping Plan (Dec. 2008) Executive Summary, p. ES-1 (Scoping Plan).) The Scoping Plan then set out a “comprehensive array of emissions reduction approaches and tools” to meet the goal, including expanding energy efficiency programs, achieving a statewide renewable energy mix of 33 percent, developing with our regional partners a cap-and-trade program for greenhouse gases, establishing targets and policies for emissions in transportation and implementing existing clean transportation programs, and creating targeted fees on certain activities affecting emissions. (*Id.*, pp. ES-3—ES-4.)

The Scoping Plan’s “business as usual” model is important here, as it formed the basis for the present EIR’s greenhouse gas significance analysis. The Air Board had previously identified a year 2020 annual emissions limit, equal to its estimate of statewide 1990 emissions, of 427 million metric tons of carbon dioxide equivalent (MMTCO<sub>2</sub>E). (Scoping Plan, *supra*, at p. 5.) In the Scoping Plan, the board estimated emissions by economic sector in the period 2002–2004, finding they totaled 469 MMTCO<sub>2</sub>E annually. Those annual emissions were then projected forward to the year 2020, employing population and economic growth estimates, yielding a business-as-usual figure of 596 MMTCO<sub>2</sub>E. (*Id.*, p. 13.) The target of 427 MMTCO<sub>2</sub>E is about 29 percent below the 2020 forecast of 596 MMTCO<sub>2</sub>E, giving the Air Board the 30 percent reduction goal quoted earlier.

The Scoping Plan’s 2020 forecast is referred to as a “business-as-usual” projection because it assumes no conservation or regulatory efforts beyond what



was in place when the forecast was made. It “represent[s] the emissions that would be expected to occur in the absence of any GHG [greenhouse gas] reductions actions.” (Scoping Plan, *supra*, appen. F, Cal.’s Greenhouse Gas Emissions Inventory, p. F-3.) For example, the emissions forecast for electricity generation assumes “all growth in electricity demand by 2020 will be met by in-state natural gas-fired power plants” and the estimate for on-road vehicle emissions “assumes no change in vehicle fleet mix over time.” (*Id.*, p. F-4.)

Neither A.B. 32 nor the Air Board’s Scoping Plan set out a mandate or method for CEQA analysis of greenhouse gas emissions from a proposed project. A 2007 CEQA amendment, however, required the preparation, adoption and periodic update of guidelines for mitigation of greenhouse gas impacts. (Stats. 2007, ch. 185, § 1, p. 2330, adding Pub. Resources Code, § 21083.05.) In 2010, the Natural Resources Agency adopted a new CEQA Guideline on Determining the Significance of Impacts from Greenhouse Gas Emissions. (Cal. Code Regs., tit. 14, § 15064.4.)<sup>4</sup>

The new guideline provides that a lead agency should attempt to “describe, calculate or estimate” the amount of greenhouse gases the project will emit, but recognizes that agencies have discretion in how to do so. (Guidelines, § 15064.4, subd. (a).) It goes on to provide that when assessing the significance of

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<sup>4</sup> The CEQA Guidelines (Guidelines), promulgated by the state Natural Resources Agency and found in title 14 of the California Code of Regulations, section 15000 et seq., are statutorily mandated to provide “criteria for public agencies to follow in determining whether or not a proposed project may have a ‘significant effect on the environment.’ ” (§ 21083, subd. (b).) We give the Guidelines great weight in interpreting CEQA, except where they are clearly unauthorized or erroneous. (*Vineyard Area Citizens, supra*, 40 Cal.4th at p. 428, fn. 5; *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1123.)



greenhouse gas emissions, the agency should consider these factors among others: “(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting; [¶] (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project[;] [¶] (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project’s incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.” (*Id.*, subd. (b).)

## *2. The EIR’s Significance Determination*

In order to evaluate the project’s greenhouse gas emissions impact, the EIR attempts to quantify the emissions currently generated on the project site in its existing uses and the emissions that would be generated by full development of the Newhall Ranch community. Annual emissions from the existing uses (primarily oil wells and agriculture) are estimated at 10,272 metric tons of CO<sub>2</sub>, which the EIR conservatively treats as zero for purposes of the impact analysis. The annual greenhouse gas emissions from Newhall Ranch at full build-out are projected to be 269,053 metric tons of CO<sub>2</sub> equivalent (MTCO<sub>2</sub>E).

The EIR asserts that while this annual emissions increase of 269,053 MTCO<sub>2</sub>E is “an obvious change to existing, on-site conditions,” the global nature of climate change and the “absence of scientific and factual information” on the significance of particular amounts of greenhouse gas emissions make the change



“[in]sufficient to support a significance determination.” The EIR accordingly goes on to consider “whether the proposed Project’s emissions . . . would impede the State of California’s compliance with the statutory emissions reduction mandate established by AB 32.”

The EIR’s method for determining whether the project would impede achievement of A.B. 32’s goals is modeled on the Air Board’s use, in its Scoping Plan, of comparison to a “business-as-usual” projection as a measure of the emission reductions needed to meet the 2020 goal (determined to be a reduction of 29 percent from business as usual). As explained earlier, the Scoping Plan forecasted statewide greenhouse gas emissions under a business-as-usual scenario in which no additional regulatory actions were taken to reduce emissions. The EIR does the same for Newhall Ranch, estimating at 390,046 MTCO<sub>2</sub>E per year the emissions “if the proposed Project and resulting development were constructed consistent with [the Air Board’s] assumptions for the CARB 2020 NAT [no action taken, or business as usual] scenario.” Because the EIR’s estimate of actual annual project emissions (269,053 MTCO<sub>2</sub>E) is 31 percent below its business-as-usual estimate (390,046 MTCO<sub>2</sub>E), exceeding the Air Board’s determination of a 29 percent reduction from business as usual needed statewide, the EIR concludes the project’s likely greenhouse gas emissions will not impede achievement of A.B. 32’s goals and are therefore less than significant for CEQA purposes.

### *3. Analysis*

We consider whether DFW abused its discretion in determining the project’s greenhouse gas emissions would not have a significant environmental impact, either because it failed to proceed in the manner required by CEQA or



because it made the no significant impact determination without the support of substantial evidence in the administrative record. (§ 21168.5.)

Plaintiffs contend the EIR's no significant impact conclusion resulted from use of a legally improper baseline for comparison. Relying on this court's decision in *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310 (*Communities for a Better Environment*), in which we disapproved the defendant district's use of pollutant emission levels allowed under prior permits—but not reflecting actual existing conditions—as a comparative baseline for a CEQA significance evaluation, plaintiffs argue DFW erred in determining significance by comparison to the hypothetical business-as-usual scenario rather than by comparison to existing greenhouse gas emissions on the project site.

DFW contends it properly relied on methodology devised by the Air Board, the state agency with greatest expertise on climate change. Newhall defends the EIR's approach and conclusion extensively, arguing that DFW acted within its discretion under Guidelines section 15064.4 in adopting compliance with A.B. 32's goals as its significance criterion and that both DFW's choice of methodology and its conclusion of no significant impact should be reviewed only for support by substantial evidence.

We begin with the broadest question posed: Did DFW abuse its discretion in adopting consistency with A.B. 32's reduction goals as its significance criterion for the project's greenhouse gas emissions? We review this issue de novo, as it is predominantly a legal question of correct CEQA procedure. (*Communities for a Better Environment, supra*, 48 Cal.4th at p. 319; *Vineyard Area Citizens, supra*, 40 Cal.4th at p. 435.)

Before considering the principal statutory and regulatory provisions governing CEQA analysis of greenhouse gas emissions (§ 21083.05; Guidelines,



§ 15064.4), we address two related aspects of the greenhouse gas problem that inform our discussion of CEQA significance.

First, because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself. The challenge for CEQA purposes is to determine whether the impact of the project's emissions of greenhouse gases is *cumulatively* considerable, in the sense that "the incremental effects of [the] individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (§21083, subd. (b)(2); see Guidelines, § 15064, subd. (h)(1).) "With respect to climate change, an individual project's emissions will most likely not have any appreciable impact on the global problem by themselves, but they will contribute to the significant cumulative impact caused by greenhouse gas emissions from other sources around the globe. The question therefore becomes whether the project's incremental addition of greenhouse gases is 'cumulatively considerable' in light of the global problem, and thus significant." (Crockett, *Addressing the Significance of Greenhouse Gas Emissions Under CEQA: California's Search for Regulatory Certainty in an Uncertain World* (July 2011) 4 Golden Gate U. Env'tl. L.J. 203, 207–208 (hereafter *Addressing the Significance of Greenhouse Gas Emissions*).)

Second, the global scope of climate change and the fact that carbon dioxide and other greenhouse gases, once released into the atmosphere, are not contained in the local area of their emission means that the impacts to be evaluated are also global rather than local. For many air pollutants, the significance of their environmental impact may depend greatly on *where* they are emitted; for greenhouse gases, it does not. For projects, like the present residential and commercial development, which are designed to accommodate longterm growth in California's population and economic activity, this fact gives rise to an argument



that a certain amount of greenhouse gas emissions is as inevitable as population growth. Under this view, a significance criterion framed in terms of efficiency is superior to a simple numerical threshold because CEQA is not intended as a population control measure.

The EIR makes this point in its response to plaintiff Center for Biological Diversity's comments on the greenhouse gas significance analysis: "[W]hen location does not matter (such as in the case of GHG emissions), evaluation of project significance via an efficiency metric is appropriate. [¶] [F]or a global environmental issue (such as climate change), utilizing an absolute number as a significance criterion equates to attempting to use CEQA to discourage population growth. Of note, the future residents and occupants of development enabled by Project approval would exist and live somewhere else if this Project is not approved. Whether 'here or there,' GHG emissions associated with such population growth will occur."

These considerations militate in favor of consistency with meeting A.B. 32's statewide goals as a permissible significance criterion for project emissions. Meeting our statewide reduction goals does not preclude all new development. Rather, the Scoping Plan—the state's roadmap for meeting A.B. 32's target—assumes continued growth and depends on increased efficiency and conservation in land use and transportation from all Californians. (See Scoping Plan, *supra*, pp. ES-1 [meeting the A.B. 32 goal "means reducing our annual emissions of 14 tons of carbon dioxide equivalent for every man, woman and child in California down to about 10 tons per person by 2020"]; *id.* at pp. 15 ["Every part of California's economy needs to play a role in reducing greenhouse gas emissions"], 42 [outlining energy efficiency measures for both new and existing buildings].) To the extent a project incorporates efficiency and conservation measures sufficient to contribute its portion of the overall greenhouse gas reductions



necessary, one can reasonably argue that the project's impact "is not 'cumulatively considerable,' because it is helping to solve the cumulative problem of greenhouse gas emissions as envisioned by California law." (*Addressing the Significance of Greenhouse Gas Emissions, supra*, 4 Golden Gate U. Envtl. L.J. at p. 210.)

Given the reality of growth, some greenhouse gas emissions from new housing and commercial developments are inevitable. The critical CEQA question is the cumulative significance of a project's greenhouse gas emissions, and from a climate change point of view it does not matter where in the state those emissions are produced. Under these circumstances, evaluating the significance of a residential or mixed use project's greenhouse gas emissions by their effect on the state's efforts to meet its longterm goals makes at least as much sense as measuring them against an absolute numerical threshold.

Using consistency with A.B. 32's statewide goal for greenhouse gas reduction, rather than a numerical threshold, as a significance criterion is also consistent with the broad guidance provided by section 15064.4 of the CEQA Guidelines. As the issuing agency explained, section 15064.4 was drafted to reflect "the existing CEQA principle that there is no iron-clad definition of 'significance.' " (Natural Resources Agency, Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97 (Dec. 2009) p. 20 (Final Statement of Reasons); cf. Pub. Res. Code, § 21083.05 [requiring periodic update of CEQA Guidelines for mitigation of greenhouse gas emissions to reflect new information or criteria established by Air Resources Board].) Section 15064.4 was not intended to closely restrict agency discretion in choosing a method for assessing greenhouse gas emissions, but rather "to assist lead agencies" in investigating and disclosing "all that they reasonably can"



regarding a project's greenhouse gas emissions impacts. (Final Statement of Reasons, *supra*, at p. 20.)<sup>5</sup>

While Guidelines section 15064.4 states a lead agency "should consider," among other factors, "[t]he extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting" (*id.*, subd. (b)(1)) and "[w]hether the project emissions exceed a threshold of significance that the lead agency determines applies to the project" (*id.*, subd. (b)(2)), the section does not mandate the use of absolute numerical thresholds to measure the significance of greenhouse gas emissions. The factors listed in subdivision (b) are not exclusive. They are rather intended "to assist lead agencies in collecting and considering information relevant to a project's incremental contribution of GHG emissions and the overall context of such emissions." (Final Statement of Reasons, *supra*, at p. 24.)

The present EIR discloses the project's likely increase in emissions over the existing environment, informing the reader that the project will increase greenhouse gas emissions by 269,053 MTCO<sub>2</sub>E compared to the existing environmental setting (Guidelines, §15064.4, subd. (b)(1)), but declines to consider the impact significant based on the size of that increase alone "because of

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<sup>5</sup> In an amicus curiae brief, the Natural Resources Agency argues that because Guidelines section 15064.4 was not yet in force when DFW circulated its draft EIR for public comment, the lead agency was not obliged to comply with that regulation. Because we hold the regulation did not prohibit reliance on consistency with A.B. 32's goals as a significance criterion (pp. 13-16), and further hold DFW's use of a business-as-usual model was deficient for reasons independent of Guidelines section 15064.4 (*post*, pp. 19-23), we need not decide whether the new Guideline section, which was operative March 18, 2010, applied to the final EIR circulated in June 2010 and to DFW's December 2010 approval of Newhall Ranch. (See Guidelines, § 15007 [prospective application of amendments to Guidelines].)



the absence of scientific and factual information regarding when particular quantities of greenhouse gas emissions become significant.” As for a significance threshold (*id.*, subd. (b)(2)), the EIR asserts that no agency had adopted an applicable threshold.

Plaintiffs challenge these statements as insufficient to justify the EIR’s choice of methodology, noting that California air pollution control officials and air quality districts have made several proposals for numerical thresholds. But given that multiple agencies’ efforts at framing greenhouse gas significance issues have not yet coalesced into any widely accepted set of numerical significance thresholds, but *have* produced “a certain level of consensus” on the value of A.B. 32 consistency as a criterion (*Addressing the Significance of Greenhouse Gas Emissions, supra*, 4 Golden Gate U. Env’tl. L.J. at p. 209), we cannot conclude DFW’s discretionary choice of A.B. 32 consistency as a significance criterion for this project violated Guidelines section 15064.4, subdivisions (b)(1) or (b)(2).

Subdivision (b)(3) of Guidelines section 15064.4 states the lead agency should also consider “[t]he extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.” A.B. 32 did not create a set of “regulations or requirements” implementing a “plan” (Guidelines, § 15064.4, subd. (b)(3)); indeed, it is not a plan but rather a statement of policies and objectives. The Scoping Plan adopted pursuant to A.B. 32 is a plan for reducing greenhouse gas emissions, but does not itself establish the regulations by which it is to be implemented; rather, it sets out how existing regulations, and new ones yet to be adopted at the time of the Scoping Plan, will be used to reach A.B. 32’s emission reduction goal. At the time the Natural Resources Agency promulgated Guidelines section 15064.4, the agency explained that the Scoping Plan “may not be appropriate for use in determining the significance of individual projects . . .



because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan.” (Final Statement of Reasons, *supra*, at pp. 26–27.)

In short, neither A.B. 32 nor the Scoping Plan establishes regulations implementing, for specific projects, the Legislature’s statewide goals for reducing greenhouse gas emissions. Neither constitutes a set of “regulations or requirements adopted to implement” a statewide reduction plan within the meaning of Guidelines section 15064.4, subdivision (b)(3). That guideline, however, does not expressly or impliedly prohibit a lead agency from using the A.B. 32 goals themselves to determine whether the project’s projected greenhouse gas emissions are significant. As noted by the Natural Resources Agency in its amicus curiae brief, “a discussion of a project’s consistency with the State’s long-term climate stabilization objectives . . . will often be appropriate . . . under CEQA,” provided the analysis is “tailored . . . specifically to a particular project.” Indeed, to proceed in this manner is consistent with CEQA’s “inherent recognition . . . that if a plan is in place to address a cumulative problem, a new project’s incremental addition to the problem will not be ‘cumulatively considerable’ if it is consistent with the plan and is doing its fair share to achieve the plan’s goals.” (*Addressing the Significance of Greenhouse Gas Emissions*, *supra*, 4 Golden Gate U. Env’tl. L.J. at pp. 210–211.) For this reason as well, we conclude DFW’s choice to use that criterion does not violate CEQA. The only published Court of Appeal decisions to consider this question have reached the same conclusion, albeit with little discussion. (*Friends of Oroville v. City of Oroville* (2013) 219 Cal.App.4th 832, 841; *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 335–336.)

A qualification regarding the passage of time is in order here. Plaintiffs do not claim it was improper for this EIR, issued in 2010, to look forward only to



2020 for a guidepost on reductions in greenhouse gas emissions, and we therefore do not consider the question whether CEQA required the EIR to address the state's goals beyond 2020. Nevertheless, over time consistency with year 2020 goals will become a less definitive guide, especially for longterm projects that will not begin operations for several years. An EIR taking a goal-consistency approach to CEQA significance may in the near future need to consider the project's effects on meeting longer term emissions reduction targets.<sup>6</sup>

Having concluded DFW did not proceed in violation of CEQA by its choice of A.B. 32 consistency as a significance criterion, we proceed to plaintiff's contention that the agency violated CEQA by comparing the project's expected emissions to a hypothetical business-as-usual scenario rather than to a baseline of emissions in the existing physical environment.

In *Communities for a Better Environment*, *supra*, 48 Cal.4th 310, a refinery sought a permit to conduct a new process using some new and some existing equipment, including existing boilers used for steam generation, each of which was subject to an existing permit setting its maximum rate of operation. (*Id.* at

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<sup>6</sup> Executive Order No. S-3-05, signed by Governor Schwarzenegger on June 1, 2005, set reduction targets of 1990 levels by 2020 and 80 percent below 1990 levels by 2050. A.B. 32 codified the 2020 goal but did not indicate any intent to abandon the 2050 goal; indeed, the Legislature cited the executive order and indicated its intent that the climate policy efforts the order initiated continue. (Health & Saf. Code, § 38501, subd. (i).) More recently, in an update to the Scoping Plan, the Air Board noted the need for steep post-2020 reductions and proposed the state adopt a “strong mid-term target” for the year 2030, in the range of 35–50 percent below 1990 levels. (Air Resources Board, First Update to the Climate Change Scoping Plan: Building on the Framework (May 2014), p. 34.) Executive Order No. B-30-15, signed by Governor Brown on April 29, 2015, endorsed the effort to set “an interim target of emission reductions for 2030.” Pending legislation would codify this additional goal, directing the Air Board to establish a 2030 limit equivalent to 40 percent below 1990 levels. (Sen. Bill No. 32 (2015–2016 Reg. Sess.) § 4.)



pp. 317–318.) The negative declaration the regional air district prepared for the project, in determining the significance of the project’s nitrogen oxide emissions, treated emissions that could be generated by the existing boilers operating together at their maximum permitted capacity (a condition that did not occur in normal operation) as part of the baseline for environmental review rather than as part of the project. (*Id.* at p. 318.) Although the negative declaration acknowledged that actual nitrogen oxide emissions would increase under the project by an amount that would normally be considered significant, the declaration determined the emissions were not significant because they were below what could have been emitted by the refinery’s boilers under the existing permits. (*Ibid.*)

We held the air district’s approach violated the rule expressed in Guidelines section 15125, subdivision (a), as well as in case law, that the comparative baseline for a significance determination should normally be the existing physical conditions in the project’s vicinity. (*Communities for a Better Environment, supra*, 48 Cal.4th at pp. 320–322.) “By comparing the proposed project to what *could* happen, rather than to what was actually happening, the District set the baseline not according to ‘established levels of a particular use,’ but by ‘merely hypothetical conditions allowable’ under the permits. [Citation.] Like an EIR, an initial study or negative declaration ‘must focus on impacts to the existing environment, not hypothetical situations.’ [Citation.]” (*Id.* at p. 322.)

Contrary to plaintiffs’ arguments, we do not see the EIR’s approach here as comparable to that of the negative declaration in *Communities for a Better Environment*. Unlike the air district in *Communities for a Better Environment*, DFW does not claim its business-as-usual model represented “the physical environmental conditions . . . as they exist” at the time of environmental analysis. (Guidelines, § 15125, subd. (a).) Rather, it employs a hypothetical business-as-usual emissions model merely as a means of comparing the project’s projected



emissions to the statewide target set under the Scoping Plan. The business-as-usual emissions model is used here as a comparative tool for evaluating efficiency and conservation efforts, not as a significance baseline.

The percentage reduction from business as usual identified by the Scoping Plan is a measure of the reduction effort needed to meet the 2020 goal, not an attempt to describe the existing level of greenhouse gas emissions. Similarly, the EIR employs its calculation of project reductions from business-as-usual emissions in an attempt to show the project incorporates efficiency and conservation measures sufficient to make it consistent with achievement of A.B. 32's reduction goal, not to show the project will not increase greenhouse gas emissions over those in the existing environment. As discussed earlier, distinctive aspects of the greenhouse gas problem make consistency with statewide reduction goals a permissible significance criterion for such emissions. Using a hypothetical scenario as a method of evaluating the proposed project's efficiency and conservation measures does not violate Guidelines section 15125 or contravene our decision in *Communities for a Better Environment*.

Notwithstanding this conclusion, we agree with plaintiffs that DFW abused its discretion in finding, on the basis of the EIR's business-as-usual comparison, that the project's greenhouse gas emissions would have no cumulatively significant impact on the environment. We reach this conclusion because the administrative record discloses no substantial evidence that Newhall Ranch's *project-level* reduction of 31 percent in comparison to business as usual is consistent with achieving A.B. 32's *statewide* goal of a 29 percent reduction from business as usual, a lacuna both dissenting opinions fail to address. Even using the EIR's own significance criterion, the EIR's analysis fails to support its conclusion of no significant impact.



The Scoping Plan set out a statewide reduction goal and a framework for reaching it—a set of broadly drawn regulatory approaches covering all sectors of the California economy and projected, if implemented and followed, to result in a reduction to 1990-level greenhouse gas emissions by the year 2020. The plan expressed the overall level of conservation and efficiency improvements required as, among other measures, a percentage reduction from a hypothetical scenario in which no additional regulatory actions were taken. But the Scoping Plan nowhere related that *statewide* level of reduction effort to the percentage of reduction that would or should be required from *individual projects*, and nothing DFW or Newhall have cited in the administrative record indicates the required percentage reduction from business as usual is the same for an individual project as for the entire state population and economy.

Plaintiffs put forward one ready reason to suspect that the percent reduction is *not* the same, and that in fact a greater degree of reduction may be needed from new land use projects than from the economy as a whole: Designing new buildings and infrastructure for maximum energy efficiency and renewable energy use is likely to be easier, and is more likely to occur, than achieving the same savings by retrofitting of older structures and systems. The California Attorney General’s Office made this point while commenting on an air district’s greenhouse gas emissions reduction plan, in a letter one of the plaintiffs brought to DFW’s attention in a comment on the EIR: “The [air district] Staff Report seems to assume that if new development projects reduce emissions by 29 percent compared to ‘business as usual,’ the 2020 statewide target of 29 percent below ‘business as usual’ will also be achieved, but it does not supply evidence of this. Indeed, it seems that new development must be more GHG-efficient than this average, given that past and current sources of emissions, which are substantially less efficient than this average, will continue to exist and emit.” In its



administrative response to this comment, DFW observed that the Scoping Plan did call for emissions reductions from existing buildings (though these are not separately quantified) and that one air district's analysis of the Scoping Plan indicated the "land-use driven" economic sector would be required to make only a 26.2 percent reduction from business as usual.

DFW's responses to comments on the EIR do not suffice to demonstrate that a 31 percent reduction from business as usual at the project level corresponds to the statewide reductions called for in the Scoping Plan. In its brief, Newhall characterizes this question as one of competing expert opinions, on which the courts must defer to the lead agency. But Newhall points to no expert opinion stating generally that the Scoping Plan contemplates the same emission reductions from new buildings as from existing ones, or more particularly that the Scoping Plan's statewide standard of a 29 percent reduction from business as usual applies without modification to a new residential or mixed use development project.

Even if the state-wide and economy-wide percentage reduction set out in the Scoping Plan were shown to be generally appropriate for use as a criterion of significance for individual projects, the EIR's conclusion that greenhouse gas emissions will be less than significant would still lack substantial supporting evidence. This is because the EIR makes an unsupported assumption regarding statewide density averages used in the Scoping Plan, an assumption that if incorrect could result in a misleading business-as-usual comparison. As plaintiffs point out, the EIR's business-as-usual scenario assumes residential density equal to that currently found in the Santa Clarita Valley. Because Newhall Ranch as designed would have greater residential density than the existing average for the Santa Clarita Valley, the EIR makes a downward adjustment from business as usual in projected vehicle miles traveled, and consequently in greenhouse gas emissions from mobile sources (a substantial part of the total emissions). As far as



the EIR reveals, however, the Scoping Plan's statewide business-as-usual model is not necessarily based on residential densities equal to the Santa Clarita Valley average.

The Scoping Plan's business-as-usual projection of vehicle miles traveled in 2020 was derived using an established growth model for such projections. (Scoping Plan, *supra*, appen. F, at pp. F-3—F-4.) But nothing DFW or Newhall points to in the administrative record shows the statewide density assumptions used in that model mirror conditions in the Santa Clarita Valley. To the extent the Scoping Plan's business-as-usual scenario assumes population densities greater than the Santa Clarita Valley density assumed in the EIR's business-as-usual projection, the EIR's comparison of project reductions from business as usual to reductions demanded in the Scoping Plan will be misleading. The administrative record does not establish a firm ground for the efficiency comparison the EIR makes and thus, for this reason as well, does not substantially support the EIR's conclusion that Newhall Ranch's 31 percent emissions savings over business as usual satisfies the report's significance criterion of consistency with the Scoping Plan's 29 percent statewide savings by 2020.

At bottom, the EIR's deficiency stems from taking a quantitative comparison method developed by the Scoping Plan as a measure of the greenhouse gas emissions reduction effort required by the state as a whole, and attempting to use that method, without consideration of any changes or adjustments, for a purpose very different from its original design: To measure the efficiency and conservation measures incorporated in a specific land use development proposed for a specific location. The EIR simply assumes that the level of effort required in one context, a 29 percent reduction from business as usual statewide, will suffice in the other, a specific land use development. From the information in the administrative record, we cannot say that conclusion is



wrong, but neither can we discern the contours of a logical argument that it is right. The analytical gap left by the EIR's failure to establish, through substantial evidence and reasoned explanation, a quantitative equivalence between the Scoping Plan's statewide comparison and the EIR's own project-level comparison deprived the EIR of its " 'sufficiency as an informative document.' " (*Laurel Heights Improvement Assn. v. Regents of University of California, supra*, 47 Cal.3d at p. 392.)

Justice Corrigan argues our conclusion on this point, requiring DFW to support its chosen quantitative method for analyzing significance with evidence and reasoned argument, is inconsistent with the deferential nature of our review. (Conc. & dis. opn. of Corrigan, J., *post*, at p. 4.) We disagree. A lead agency enjoys substantial discretion in its choice of methodology. But when the agency chooses to rely completely on a single quantitative method to justify a no-significance finding, CEQA demands the agency research and document the quantitative parameters essential to that method. Otherwise, decision makers and the public are left with only an unsubstantiated assertion that the impacts—here, the cumulative impact of the project on global warming—will not be significant. (See Guidelines, § 15064, subd. (f)(5) [substantial evidence to support a finding on significance includes "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts," but not "[a]rgument, speculation, [or] unsubstantiated opinion"].)

Nor is Justice Corrigan correct that our analysis "assumes project-level reductions in greenhouse gas emissions must be greater than the reductions California is seeking to achieve statewide." (Conc. & dis. opn. of Corrigan, J., *post*, at p. 2.) As discussed just above (*ante*, pp. 22–23), we hold only that DFW erred in failing to substantiate its assumption that the Scoping Plan's statewide



measure of emissions reduction can also serve as the criterion for an individual land use project.

We further agree with plaintiffs that DFW's failure to provide substantial evidentiary support for its no significant impact conclusion was prejudicial, in that it deprived decision makers and the public of substantial relevant information about the project's likely impacts. (*Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 463 (lead opn. of Werdegar, J.); *Environmental Protection Information Center v. California Dept. of Forestry & Fire Protection* (2008) 44 Cal.4th 459, 485–486; *Sierra Club v. State Bd. of Forestry* (1994) 7 Cal.4th 1215, 1236–1237.) In this EIR, DFW employed the business-as-usual comparison as its sole criterion of significance. In the absence of substantial evidence to support the EIR's no-significance finding, as noted above, the EIR's readers have no way of knowing whether the project's likely greenhouse gas emissions impacts will indeed be significant and, if so, what mitigation measures will be required to reduce them. This is not the sort of “[i]nsubstantial or merely technical omission[.]” that can be overlooked in deciding whether to grant relief. (*Neighbors for Smart Rail v. Exposition Metro Line Construction Authority*, *supra*, at p. 463.)

We briefly address some of the potential options for DFW on remand and for other lead agencies faced with evaluating the cumulative significance of a proposed land use development's greenhouse gas emissions. While the burden of CEQA's mandate in this context can be substantial, methods for complying with CEQA do exist. We do not, of course, guarantee that any of these approaches will be found to satisfy CEQA's demands as to any particular project; what follows is merely a description of potential pathways to compliance, depending on the circumstances of a given project.



First, although we have found the particular comparison made here lacking in support, and although doubt has been cast on the Scoping Plan's project-level appropriateness (see Final Statement of Reasons, *supra*, at pp. 24–25), a business-as-usual comparison based on the Scoping Plan's methodology may be possible. On an examination of the data behind the Scoping Plan's business-as-usual model, a lead agency might be able to determine what level of reduction from business as usual a new land use development at the proposed location must contribute in order to comply with statewide goals.

Second, a lead agency might assess consistency with A.B. 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities. (See Final Statement of Reasons, *supra*, at p. 64 [greenhouse gas emissions “may be best analyzed and mitigated at a programmatic level.”].) To the extent a project's design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by the Air Board or other state agencies, a lead agency could appropriately rely on their use as showing compliance with “performance based standards” adopted to fulfill “a statewide . . . plan for the reduction or mitigation of greenhouse gas emissions.” (Guidelines, § 15064.4, subds. (a)(2), (b)(3); see also *id.*, § 15064, subd. (h)(3) [determination that impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including “plans or regulations for the reduction of greenhouse gas emissions”].)

A significance analysis based on compliance with such statewide regulations, however, only goes to impacts within the area governed by the regulations. That a project is designed to meet high building efficiency and conservation standards, for example, does not establish that its greenhouse gas emissions from transportation activities lack significant impacts. (Final Statement of Reasons, *supra*, at p. 23.) Although transportation accounts for almost 40



percent of the state's greenhouse gas emissions, and transportation emissions are affected by the location and density of residential and commercial development, the Scoping Plan does not propose statewide regulation of land use planning but relies instead on local governments. (Scoping Plan, *supra*, at pp. 11, 27.)

Local governments thus bear the primary burden of evaluating a land use project's impact on greenhouse gas emissions. Some of this burden can be relieved by using geographically specific greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis. Guidelines section 15183.5, added in 2010 along with section 15064.4, explains in detail how a programmatic effort such as "a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions" (*id.*, § 15183.5, subd. (a)) may, if sufficiently detailed and adequately supported, be used in later project-specific CEQA documents to simplify the evaluation of the project's cumulative contribution to the effects of greenhouse gas emissions (*id.* at subd. (b)). (Guidelines, § 15183.5, subds. (a), (b).) The Scoping Plan encourages local jurisdictions to develop " 'climate action plans' " or greenhouse gas " 'emissions reduction plans' " for their geographic areas, and several jurisdictions have adopted or proposed such plans as tools for CEQA streamlining. (Final Statement of Reasons, *supra*, at p. 65; see, e.g., City of Milpitas, Climate Action Plan and Qualified Greenhouse Gas Reduction Strategy (May 2013), p. 1-1; City of San Bernardino, Sustainability Master Plan (Public Review Draft, Aug. 2012), p. 4.)

In addition, CEQA expressly allows streamlining of transportation impacts analysis for certain land use projects based on metropolitan regional "sustainable communities strategies." Under follow-up legislation to A.B. 32 (Stats. 2008, ch. 728, p. 5065, commonly known as S.B. 375) each metropolitan planning organization in the state is to prepare a "sustainable communities strategy" or



alternative plan to meet regional targets set by the Air Board for greenhouse gas emissions from cars and light trucks. (Gov. Code, § 65080, subd. (b)(2).) CEQA documents for certain residential, mixed use and transit priority projects that are consistent with the limits and policies specified in an applicable sustainable communities strategy need not additionally analyze greenhouse gas emissions from cars and light trucks. (§§ 21155.2, 21159.28; Guidelines, § 15183.5, subd. (c).)

Third, a lead agency may rely on existing numerical thresholds of significance for greenhouse gas emissions, though as we have explained (*ante*, p. 14), use of such thresholds is not required. (Guidelines, § 15064.4, subd. (b)(2); see, e.g., Bay Area Air Quality Management Dist. (BAAQMD), CEQA Guidelines Update: Proposed Thresholds of Significance (May 3, 2010), pp. 8–21 [regional air quality district for the San Francisco Bay Area proposes a threshold of 1100 MTCO<sub>2</sub>E in annual emissions as one alternative agencies may use in determining CEQA significance for new land use projects].)<sup>7</sup> Thresholds, it should be noted, only define the level at which an environmental effect “normally” is considered significant; they do not relieve the lead agency of its duty to determine the

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<sup>7</sup> BAAQMD approved its greenhouse gas thresholds along with other CEQA thresholds of significance in June 2010, but has refrained from recommending their use pending the completion of litigation challenging its promulgation of thresholds. (BAAQMD, CEQA Air Quality Guidelines (May 2012 update), p. 2-5.) The litigation is currently pending in this court (*Cal. Building Industry Association v. Bay Area Air Quality Management District*, review granted Nov. 26, 2013, S213478), but the question we granted review to decide relates solely to certain BAAQMD thresholds for analyzing the effect of existing pollution sources on projects bringing more users or residents to a location. The validity of the greenhouse gas source thresholds is not under examination in this court. (*Id.*, order Nov. 26, 2013.)



significance of an impact independently. (Guidelines, § 15064.7, subd. (a)); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 342.)

For a large land use project such as Newhall Ranch, using a numerical threshold may result in a determination of significant greenhouse gas emission impacts. In that circumstance, the lead agency must adopt feasible mitigation measures or project alternatives to reduce the effect to insignificance; to the extent significant impacts remain after mitigation, the agency may still approve the project with a statement of overriding considerations. (§§ 21002, 21002.1, subd. (b), 21081; Guidelines, §§ 15091, 15093, 15126.6.) Were DFW to determine on remand that adding hundreds of thousands of tons of greenhouse gasses to the atmosphere has a cumulatively significant effect, therefore, it would not necessarily be required to disapprove the project on that basis. The agency could instead adopt whatever feasible alternatives and mitigation measures exist beyond the efficiency and conservation features already incorporated in the project design and, to the extent those measures do not reduce the cumulative impact of the project below the chosen threshold of significance, DFW could add a discussion of these impacts, and the countervailing benefits of the project, to the statement of overriding considerations the agency previously adopted in approving the project.

#### **B. The EIR's Mitigation Measures for Protection of Unarmored Threespine Stickleback**

Finding that infrastructure construction and building of Newhall Ranch could result in significant impacts to special status wildlife and plant species, DFW adopted numerous biological impact mitigation measures. Mitigation measures BIO-44 and BIO-46 provide for collection and relocation of special status fish, including the unarmored threespine stickleback, during construction in, or diversion of, the Santa Clara River. Such actions would be performed by United States Fish and Wildlife Service personnel or their agents.



We agree with plaintiffs that specifying these actions as mitigation in an EIR violates the Fish and Game Code section 5515's prohibition on authorizing the taking or possession of fully protected fish in mitigation of project impacts under CEQA. DFW may conduct or authorize capture and relocation of the stickleback as a conservation measure to protect the fish and aid in its recovery, but the agency may not rely in a CEQA document on the prospect of capture and relocation as mitigating a project's adverse impacts.

Fish and Game Code section 5515 lists 10 species of “fully protected” fish, including the unarmored threespine stickleback, *Gasterosteus aculeatus williamsoni*. (*Id.*, subd. (b)(9).) Subdivision (a) of that statute provides in pertinent part: “(1) Except as provided in Section 2081.7 or 2835, *fully protected fish or parts thereof may not be taken or possessed at any time. . . .* However, the department may authorize the taking of those species for necessary scientific research, including efforts to recover fully protected, threatened, or endangered species. . . . [¶] (2) *As used in this subdivision, ‘scientific research’ does not include any actions taken as part of specified mitigation for a project, as defined in Section 21065 of the Public Resources Code.*” (Fish & G. Code, § 5515, subd. (a), italics added.)<sup>8</sup>

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<sup>8</sup> Parallel provisions govern the taking or possession of other fully protected animals. (See Fish & G. Code, §§ 3511 [fully protected birds], 4700 [fully protected mammals], 5050 [fully protected reptiles and amphibians].) The fully protected species laws are distinct from the more familiar endangered species laws (*id.*, §§ 2050–2115.5), though many species are covered by both statutory schemes.

The listed exceptions to Fish and Game Code section 5515's taking prohibition, Fish and Game Code sections 2081.7 and 2835, deal respectively with taking resulting from an agreement on Colorado River water and taking provided for in a “natural community conservation plan.” Neither exception applies here.



Fish and Game Code section 86 defines “take” as to “hunt, *pursue, catch, capture*, or kill, or attempt to hunt, pursue, catch, capture, or kill.” (Italics added.) This definition governs construction of the Fish and Game Code generally unless particular provisions or context require otherwise. (*Id.*, § 2.)

In light of the definition of take in section 86 as including an animal’s “pursu[it],” “catch,” or “capture,” the capture and relocation of stickleback contemplated by mitigation measures BIO-44 and BIO-46 violates Fish and Game Code section 5515. Although trapping and transplantation are defined as possible conservation measures for *endangered* species under Fish and Game Code section 2061,<sup>9</sup> the stickleback, as a *fully protected* species, is subject to the stricter prohibitions against taking set forth in Fish and Game Code section 5515, including an express prohibition on taking as mitigation for a project under CEQA. (*Id.*, subd. (a)(2).)

DFW and Newhall argue the references to “pursue,” “catch” and “capture” in Fish and Game Code section 86 should be understood to exclude trapping and transplantation done for conservation purposes. Because the stickleback is listed as an endangered species (Cal. Code Regs., tit. 14, § 670.5, subd. (a)(2)(L)) as well as a fully protected one, they argue, the prohibition on taking stickleback as a fully protected species must be harmonized with the Endangered Species Act’s permission to trap and transport endangered species for protective purposes. (Fish

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<sup>9</sup> Fish and Game Code section 2061, part of the California Endangered Species Act, defines “conservation” to mean “all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary,” including “research, census, law enforcement, habitat acquisition, restoration and maintenance, propagation, *live trapping, and transplantation*, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.” (Italics added.)



& G. Code, § 2061.) In the context of the Fish and Game Code’s solicitude for conservation of endangered and threatened species, the prohibition on taking should, DFW maintains, be understood as referring to “[a]ctivities . . . that adversely affect fish and wildlife—not . . . activities intended to move fish and wildlife out of harm’s way.”

We must reject the claim DFW may authorize, *as CEQA mitigation*, actions to protect a fully protected species from harm when, as here, those actions are otherwise prohibited as takings. The Legislature has expressly precluded this interpretation of the statutes by providing, in Fish and Game Code section 5515, subdivision (a), that permitted taking of a fully protected species for “scientific research” may include “efforts to recover” the species but that such “scientific research” does *not* include “any actions taken as part of specified mitigation for a project” as defined in CEQA. We cannot give effect to this provision and at the same time hold that DFW may, as CEQA mitigation, authorize the trapping and transplantation of stickleback—actions that plainly call for the fish’s “catch,” or “capture” (Fish & G. Code, § 86). That such catch or capture is intended to protect the stickleback from harm caused by the project’s construction is inherent in its adoption as CEQA mitigation and is expressly barred under section 5515.

Legislative history supports our conclusion. The language allowing taking for recovery efforts but not for CEQA mitigation was added to Fish and Game Code section 5515, subdivision (a) in 2003. (Stats. 2003, ch. 735, § 4, pp. 5521-5522.) As introduced on February 20, 2003, the bill simply defined “scientific research” to include recovery efforts for fully protected species. (Sen. Bill No. 412 (2003–2004 Reg. Sess.) as introduced Feb. 20, 2013.) An Assembly committee analysis of the bill as introduced, explained that the Natural Resources Agency secretary had testified that the fully protected species law’s absolute prohibition on taking had led to certain problems: “1) Fully protected status



conflicts with recovery efforts because there is no allowance for management pursuant to a recovery effort. For example, the fully protected species statute is in direct conflict with regional, multi-species conservation planning, such as the Natural Community Conservation Planning Program. [¶] 2) Fully protected status does not allow for incidental take of species due to otherwise lawful activities. [¶] 3) The law does not provide for mitigation of fully protected species. Because mitigation is not an option, the Department's only recourse is to initiate legal proceedings to address conflicts with fully protected species.” (Assem. Com. on Water, Parks & Wildlife, analysis of Sen. Bill No. 412 (2003–2004 Reg. Sess.) as introduced Feb. 20, 2003, p. 2.) The analysis continued: “According to the author this measure is intended to address the problem identified by Secretary Nichols in #1 above. In order to ensure broader recovery planning efforts can take place some take may be necessary.” (*Ibid.*)

The bill was subsequently amended in the Assembly to add the proviso that “scientific research” does *not* include “any actions taken as part of specified mitigation for a project, as defined in Section 21065 of the Public Resources Code.” (Sen. Bill No. 412 (2003–2004 Reg. Sess.) as amended Aug. 28, 2003.) A new committee analysis noted that the bill now “[e]xcludes, from ‘scientific research,’ any actions taken to mitigate a project under the California Environmental Quality Act (CEQA).” (Assem. Com. on Appropriations, analysis of Sen. Bill No. 412 (2003–2004 Reg. Sess.) as amended Aug. 28, 2003, pp. 1-2.)

Though not explicitly noted in the legislative history, the August 28, 2003, amendment was consistent with the earlier report's observation that, of the three problems identified by Secretary Nichols, the bill was intended to address only the first problem: the prohibition on taking members of a fully protected species tended to hinder management programs for the species' recovery. (Assem. Com. on Water, Parks & Wildlife, analysis of Sen. Bill No. 412 (2003–2004 Reg. Sess.)



as introduced Feb. 20, 2003, p. 2.) It was not aimed at the separate asserted problem of mitigation of the effects other actions would have on a fully protected species. (*Ibid.*) The August 28 amendment, by reaffirming the taking prohibition as to CEQA mitigation measures, effectuated this distinction in legislative intent.

Consistent with this history and the statutory language, we read Fish and Game Code section 5515, subdivision (a) as allowing the trapping and transplantation of fully protected fish species as part of a species recovery program, but *not* as mitigation for a project. Mitigating the adverse effect of a land development project on a species is not the same as undertaking positive efforts for the species' recovery, a distinction recognized in the 2003 legislation by its explicit exclusion of CEQA mitigation measures from the definition of scientific research. The Legislature evidently believed the prohibition on taking or possessing fully protected species should be relaxed to permit the use of wildlife management techniques needed for species recovery, but that agencies should not be allowed to rely on the availability of such techniques in approving or carrying out projects that would have significant adverse effects on a fully protected species. We therefore say nothing to preclude DFW's use or authorization of trapping and transplantation to protect the stickleback from threats to its survival and recovery, as expressly allowed under Fish and Game Code section 5515, subdivision (a)(1); based on subdivision (a)(2) of that statute, we hold only that such actions may not be relied on or "specified" as project mitigation measures pursuant to CEQA.

In the context of Fish and Game Code section 5515, limiting the definition of "taking" — which includes but is not limited to hunting and killing animals (Fish and G. Code, § 86) — to actions intended to harm a fully protected animal, as DFW urges, would also render unnecessary, or at least very puzzling, the Legislature's proviso that taking is not permitted as CEQA project mitigation.



(*Id.*, subd. (a)(2).) Hunting and killing animals might sometimes be necessary as a conservation measure, for example, to obtain biological samples or to relieve a dangerous local population pressure, but one struggles to imagine the circumstances in which a CEQA document would propose mitigating a project's adverse impacts on a fully protected species by killing or otherwise intentionally harming members of the species. If Fish and Game Code section 5515, subdivision (a)(1)'s prohibition on "tak[ing] or possess[ing]" a fully protected fish referred only to intentionally harmful acts, the Legislature would not likely have thought it necessary to specify in subdivision (a)(2) that such taking or possession could not be proposed as a means of mitigating adverse project effects.

In addition, narrowing Fish and Game Code section 86's definition of "take" to actions intended to harm an animal could in theory allow unauthorized persons found pursuing and catching a protected species to assert as a complete defense that their intent was not to harm the animal but to restore or transplant it to a safe habitat, a result we doubt very much the Legislature intended. We are loath to adopt a construction that would, for example, sanction an amateur conservationist capturing and moving a southern sea otter (fully protected under Fish & G. Code, § 4700, subd. (b)(8)) from its established habitat to a cove where the person believes it will be safer and healthier. On this point, Justice Chin observes that the Legislature did not intend such a result for endangered species any more than for fully protected ones. (Dis. opn. of Chin, J., *post*, at p. 13.) We agree: the broad definition of "take" in Fish and Game Code section 86 ensures that DFW can maintain legal control over actions interfering with threatened, endangered and fully protected animals even where those actions may not have been intended to kill or hurt the animal.

DFW urges deference to its interpretation of Fish and Game Code provisions, an area in which it has both expertise and substantial administrative



responsibility. We consider an agency's interpretation of statutes and regulations in light of the circumstances, giving greater weight where the interpretation concerns technical and complex matters within the scope of the agency's expertise. (*Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, 12.) Even in substantive areas of the agency's expertise, however, our deference to an agency's statutory interpretation is limited; determining statutes' meaning and effect is a matter "lying within the constitutional domain of the courts." (*Id.* at p. 11.) That said, we acknowledge DFW's superior expertise in the administration of the Fish and Game Code, and we would not lightly adopt an interpretation of that code's provisions the department persuasively argued would defeat its ability to pursue species conservation and recovery. Again, however, we do not hold trapping and transplantation of fully protected fish species is prohibited as part of a species recovery effort. We hold only that such actions may not be specified as project mitigation measures in an EIR or other CEQA document. Nothing we say precludes DFW from using its expertise and judgment in determining, at any time, how best to protect a fully protected species from an imminent threat to its habitat.

Justice Chin points out that Fish and Game Code section 2061, relating to endangered species, refers separately to "taking," "live trapping," and "transplantation," implying these actions differ from one another. (Dis. opn., of Chin, J., *post*, at pp. 10–11.) That this provision uses "taking" in a limited sense denoting mortality or other permanent removal from the ecosystem, a meaning far narrower than the generally applicable definition of Fish and Game Code section 86, does not compel or even suggest the same limited meaning was intended in Fish and Game Code section 5515, relating to fully protected fish species. Indeed, we observe that a closely analogous statute, Fish and Game Code section 3511, while prohibiting the taking or possession of fully protected birds, provides an



exception allowing permits for “live capture and relocation” of such birds to protect livestock, suggesting those actions would otherwise be within the statutory prohibition on taking or possession, the same prohibition contained in Fish and Game Code section 5515.

Justice Chin further argues our interpretation of Fish and Game Code section 5515 as distinguishing between capture and translocation performed for conservation purposes and the same actions specified as CEQA mitigation measures has “little substance.” (Dis. opn. of Chin, J., *post*, at p. 9.) To the contrary, we see a significant distinction between discussing in an EIR measures that might be taken as part of an ongoing species recovery effort and specifying those actions as binding mitigation measures upon which project approval is conditioned. (See Guidelines § 15126.4, subd. (a)(2) [“Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments.”].) Decision makers and the public could well be influenced in their evaluation of a project by the existence or nonexistence of such enforceable mitigation measures.

### **C. Timeliness of Plaintiffs’ Comments on Cultural Resources and Steelhead Smolt Impacts**

The Court of Appeal held two of plaintiffs’ challenges to the EIR, regarding impacts on Native American cultural resources and on steelhead smolt (juveniles), were not preserved because they were not timely brought to DFW’s attention in the administrative process. The issue turns on plaintiffs’ compliance with section 21177, which sets out the requirement that a CEQA claim be administratively exhausted before forming the basis for a judicial challenge to the agency’s actions.

Section 21177, subdivision (a) provides that before an alleged ground for noncompliance with CEQA may be brought to court it must have been “presented



to the public agency orally or in writing by any person during the public comment period provided by this division or prior to the close of the public hearing on the project before the issuance of the notice of determination.” DFW held no public hearing on final approval of the present project (the Resource Management and Development Plan and the Spineflower Conservation Plan); the question is therefore whether plaintiffs’ claims regarding Native American cultural resources and steelhead smolt were presented to DFW “during the public comment period provided by [CEQA].” (*Ibid.*)

As noted earlier, what we have referred to as the EIR was actually a combined environmental impact statement and environmental impact report (EIS/EIR) prepared jointly under NEPA and CEQA by the Corps and DFW, the lead federal and state agencies, respectively. (*Ante*, at pp. 2–3.) CEQA requires a public comment period on the draft EIR, but not on the final EIR; a comment period on the final EIR before project approval is optional with the lead agency. (§ 21091, subd. (a); Guidelines, § 15089, subd. (b).) NEPA regulations, in contrast, allow agencies and members of the public to submit comments on a final EIS at any time before the final agency decision, which ordinarily may not be issued earlier than 30 days after notice of the final EIS. (40 C.F.R. §§ 1503.1(b), 1506.10(b)(2).) In compliance with its federal obligations, the Corps published a notice of availability of the final EIS/EIR, inviting public comments during the period June 18, 2010 through July 19, 2010, later extended through August 3, 2010. Plaintiffs raised the disputed issues regarding Native American cultural resources and steelhead smolt impacts in comment letters during this period.

Because plaintiffs’ comments were made during the Corps-noticed comment period for the final EIS/EIR, rather than during the earlier CEQA-mandated period for comments on the draft EIS/EIR, DFW and Newhall contend



they came too late to preserve plaintiffs' claims under section 21177, subdivision (a). Under the circumstances of this case, we disagree.

In the final EIR, DFW stated that while CEQA did not require a comment period on it, DFW would make the final EIR available to the public "at the time the Corps begins its required 30-day public review." In its findings on project approval, DFW noted that "CEQA allows, but does not require, public review of a Final EIR" and that the Corps' 45-day comment period (extended from 30 days) is "equivalent" to the 45-day period required by CEQA for draft EIR's submitted for review by other agencies. The findings further explained that comments on the final EIS/EIR were given to the applicant (Newhall) for preparation of draft responses, that DFW "coordinated with the Corps and the applicant during the initial discussions" regarding these comments, and that "[b]ased on the input received from both DFG [now DFW] and the Corps, the applicant and its consultant team completed responses to the comments." In sum, "DFG has provided input and coordinated with the Corps and the applicant with respect to the draft responses on the Final EIS/EIR."

On completion of the response and revision process, the lead agencies together prepared an addendum containing portions of the final EIS/EIR that had been modified in response to comments on that document. The agencies included that addendum, together with the final EIS/EIR itself and the comments and responses to comments, in their final decision documents. This addendum adopted a new mitigation measure for Native American cultural resources, and the responses by DFW to plaintiffs' comments on the final EIR include responses on impacts on steelhead.

We need not decide whether every federally mandated comment period on a final combined EIS/EIR also constitutes a CEQA comment period for purposes of section 21177, subdivision (a). In this case, the lead state agency, DFW,



participated fully in the post-final EIS/EIR process, helping to prepare responses to the comments received and including those comments and responsive changes in the version of the final EIR it certified as compliant with CEQA when approving the project. Where the lead agency under CEQA has treated a federal comment period on a final EIS/EIR as an opportunity to receive additional comments on CEQA issues as well and has responded to those comments and included the responses in its final decision document, the lead agency has effectively treated the federal period as an optional comment period on the final EIR under Guidelines section 15089, subdivision (b). Such an optional comment period is “provided by” CEQA for purposes of section 21177. (See *Environmental Protection Information Center v. California Dept. of Forestry & Fire Protection*, *supra*, 44 Cal.4th at p. 484 [lead federal agency’s notice of availability of final EIS/EIR, which also invited comments to be sent to lead state agency, reopened public comment period for CEQA purposes]; *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1120 [“the phrase ‘during the public comment period provided by this division,’ . . . includes optional comment periods.”])

The purposes of requiring exhaustion of administrative remedies, as section 21177 does, are to lighten the judicial burden by providing a remedy at the administrative level and, where a judicial remedy is nonetheless sought, facilitating a complete record that draws on the administrative agency’s expertise and has already been sifted for relevant evidence. (*Tomlinson v. County of Alameda* (2012) 54 Cal.4th 281, 291.) In this case, where DFW independently reviewed plaintiffs’ comments on the final EIS/EIR, contributed its expertise to the drafting of responses and revisions based on those comments, and included those responses and revisions in the final version of the EIR it certified and relied on in making its approval decision, the statute’s purpose has been served. We



conclude the disputed comments were timely under section 21177, subdivision (a) because they were submitted during a public comment period provided by CEQA.

The Court of Appeal, after holding plaintiffs had not administratively exhausted their claims on these topics, went on to reject those claims on the merits, finding the EIR's determinations to be supported by substantial evidence. DFW and Newhall argue the Court of Appeal's judgment may be upheld on this alternative ground, whereas plaintiffs insist the merits must be revisited because the Court of Appeal's disregard for information presented in the comments it deemed untimely tainted its evaluation of the merits. We leave for the appellate court the question of whether its determinations on the merits require reexamination.

### **III. CONCLUSION**

We conclude, contrary to the holdings of the Court of Appeal, that DFW abused its discretion by making the determination, without the support of substantial evidence, that the project's greenhouse gas emissions would have no significant impact, and in imposing biological resource mitigation measures that call for the trapping and translocation of a fully protected fish species. We further conclude the Court of Appeal erred in holding plaintiffs failed to preserve their claims regarding Native American cultural resource and steelhead smolt impacts. On remand, the Court of Appeal shall decide whether, in light of our exhaustion holding, the Native American cultural resource and steelhead smolt claims warrant reexamination on the merits. The Court of Appeal shall further decide, or remand for the superior court to decide, the parameters of the writ of mandate to be issued. (See § 21168.9.)

Justice Chin suggests that by reversing and remanding in this case, we inordinately delay the construction of Newhall Ranch and push its thousands of potential residents into housing that "will undoubtedly be far less green than this



project promises to be.” (Dis. opn. of Chin, J., *post*, at p. 15.) It is not the courts’ role, of course, to decide where in the state new housing should be built, and our review of a lower court’s CEQA ruling does not turn on our independent assessment of the project’s environmental merits. Even if Newhall Ranch offered the environmentally best means of housing this part of California’s growing population, CEQA’s requirements for informing the public and decision makers of adverse impacts, and for imposition of valid, feasible mitigation measures, would still need to be enforced.

Nor is Justice Chin’s assumption regarding the project’s superlative environmental profile necessarily supported by the record. As plaintiffs point out, the hypothetical business-as-usual model used in the EIR to assess greenhouse gas emissions counterfactually assumes the continuation of building and vehicle efficiency standards and an electricity generation source mixture that have, in actuality, been superseded by stricter standards and practices. The EIR’s calculation of a 31 percent reduction in comparison to this model therefore does not mean Newhall Ranch would emit 31 percent fewer greenhouse gasses than other mixed use projects that could actually be built under current standards. Finally, one should not assume a sizeable new housing development planned for a site relatively far from major urban centers, to be built largely on undeveloped land with habitat for several sensitive species, will have comparatively minor impacts either on greenhouse gas emissions or on fish and wildlife. The dissent’s claim that today’s decision threatens the “subver[sion]” of CEQA into a tool for delay of a uniquely meritorious project (dis. opn. of Chin, J., *post*, at p. 13) is neither warranted by the facts nor consonant with the scope of judicial review under CEQA.



#### **IV. DISPOSITION**

The judgment of the Court of Appeal is reversed and the matter is remanded to that court for further proceedings consistent with our opinion.

**WERDEGAR, J.**

**WE CONCUR:**

**CANTIL-SAKAUYE, C. J.**

**LIU, J.**

**CUÉLLAR, J.**

**KRUGER, J.**



## CONCURRING AND DISSENTING OPINION BY CORRIGAN, J.

I agree with most of the majority opinion's holdings. Specifically, I agree that mitigation measures described in the environmental impact report (EIR) for the unarmored threespine stickleback would constitute a taking prohibited by the Fish and Game Code. I also agree that the methodology used to assess the significance of greenhouse gas emissions was consistent with the California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et seq.). The Department of Fish and Wildlife (DFW) did not violate CEQA by using the statewide emissions reduction goal in Assembly Bill No. 32 (2005-2006 Reg. Sess.)<sup>1</sup> as a significance criterion or by comparing Newhall Ranch's projected emissions to a business-as-usual model instead of to a baseline of existing emissions. (See maj. opn., *ante*, at pp. 17, 19.) Having determined the methodology was permissible, however, the majority finds insufficient evidence supporting DFW's application of it. Here our views diverge. Because the level of detail the majority demands from this EIR is contrary to both our deferential standard of review and our approval of the methodology used to assess greenhouse gas significance, I respectfully dissent from that portion of its opinion.

### A. *Correlation with Statewide Goal*

All members of the court agree the developers could use consistency with Assembly Bill 32 as a threshold for determining the significance of greenhouse gas emissions under CEQA. Assembly Bill 32 set a goal of reducing statewide

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<sup>1</sup> Statutes 2006, chapter 488, page 3419 (Assembly Bill 32).



emissions 29 percent from business as usual. Under the methodology we approve today, if expected emissions from the project are “consistent” with this statewide goal, they are not significant for purposes of CEQA. Experts project that Newhall Ranch will achieve a 31 percent reduction from business as usual, two percentage points better than Assembly Bill 32’s goal. Nevertheless, the majority concludes this projection is insufficient to support a finding of consistency with Assembly Bill 32 because the EIR does not explain how project-level reductions correlate with statewide reductions.

The majority’s analysis implicitly assumes project-level reductions in greenhouse gas emissions must be greater than the reductions California is seeking to achieve statewide. It reasons that, because new developments can incorporate the most advanced technology, they may presumably achieve greater efficiency than is possible through retrofitting existing buildings. Thus, considering all greenhouse gas sources across the state, regulators may expect greater emissions reductions from new developments. (See maj. opn., *ante*, at p. 20.) This argument may be reasonable in the abstract, but in my view it is too amorphous a ground for invalidating a carefully prepared and thorough EIR. Although lead agencies must consider whether a project’s impacts are “cumulatively considerable” in light of existing and future projects (Pub. Resources Code, § 21083, subd. (b)(2)), no CEQA provision places the responsibility on developers to mitigate environmental impacts caused entirely by *other* projects. Moreover, the majority does not identify just how much better than the statewide goal new projects must be. The “Scoping Plan” for Assembly Bill 32 did not suggest, let alone mandate, specific efficiency levels for new development projects. Nor does the majority opinion indicate what specific level of reduction would be sufficient for Newhall Ranch to demonstrate consistency with Assembly Bill 32. It is not clear why a 31 percent reduction, to be achieved by the one of the largest development projects in the state’s history, is *necessarily* inadequate.



The majority's substantial evidence conclusion would also seem to render our approval of DFW's methodology illusory. Although the majority nominally approves of determining CEQA significance by measuring a project's improvements from business as usual against Assembly Bill 32's statewide goal, it faults the EIR here for failing to demonstrate "a quantitative equivalence between the Scoping Plan's statewide comparison and the EIR's own project-level comparison." (Maj. opn., *ante*, at p. 23.) But we have no assurance it is even possible to calculate how a statewide goal corresponds to specific, quantitative efficiency measures for individual projects. The majority opinion discusses several approaches for assessing the significance of greenhouse gas emissions. However, only one option addresses the methodology actually used by DFW and approved in this case. DFW assessed significance by comparing the project's reduction of emissions from business as usual to Assembly Bill 32's goal for such reductions statewide. According to the majority, the only way it "may be possible" to obtain a quantitative correlation between these business-as-usual models is if "an examination of the data behind the Scoping Plan's business-as-usual model" allowed the lead agency "to determine what level of reduction from business as usual a new land use development at the proposed location must contribute in order to comply with statewide goals." (Maj. opn., *ante*, at p. 25.) The speculation that underlying data might yield a satisfactory answer gives little practical aid to the agencies that will have to implement our decision on remand.

As Justice Chin observes, many experts from many different agencies have scrutinized this project. (Dis. opn. of Chin, J., *post*, at pp. 4-5.) Despite their efforts, there is no scientific consensus as to how large a reduction at the project level is needed to establish consistency with Assembly Bill 32's statewide goal. Under these circumstances, the lead agency had discretion to conclude that a project-level reduction exceeding the statewide goal by two percentage points was consistent with Assembly Bill 32 and demonstrated that greenhouse gas emissions would not be significant for purposes of CEQA. (See *Save Our Peninsula*



*Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 120.)

The majority's contrary conclusion is inconsistent with our deferential standard of review. Under substantial evidence review, " 'the reviewing court *must* resolve reasonable doubts in favor of the administrative finding and decision.' " (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 393, italics added.) Our "task is not to weigh conflicting evidence and determine who has the better argument when the dispute is whether adverse effects have been mitigated or could be better mitigated. We have neither the resources nor scientific expertise to engage in such analysis, even if the statutorily prescribed standard of review permitted us to do so." (*Ibid.*) Here, the lead agency determined the greenhouse gas emissions from Newhall Ranch would not be significant for purposes of CEQA based on a methodology this court now validates. On substantial evidence review, the burden was on parties attacking the EIR to show that this determination was insupportable. Specifically, they had to demonstrate that, despite being slightly better than Assembly Bill 32's statewide goal, the project's 31 percent reduction in greenhouse gas emissions is too low to be "consistent" with Assembly Bill 32. They have not done so.

#### B. *Population Density Comparison*

The majority opinion's second reason for rejecting the EIR's conclusion about the significance of greenhouse gas emissions is both hyper technical and insufficiently deferential to the lead agency's expertise.

The EIR's business-as-usual model assumes a population density equal to that currently existing at "full build out" in Santa Clarita Valley, where the project is located. Because the project is designed to have a higher density than this existing development, it is expected to significantly reduce greenhouse gas emissions from business as usual. The majority opinion criticizes the EIR for failing to correlate this comparison with the business-as-usual comparison used in



the Scoping Plan. It notes that, “[t]o the extent” the Scoping Plan’s business-as-usual model is based on areas with higher population densities than Santa Clarita Valley, the EIR’s comparison of emissions reductions from those demanded in the Scoping Plan would be misleading. (Maj. opn., *ante*, at p. 22.)

It is not immediately obvious that there is anything wrong with comparing the Newhall Ranch project with development in the surrounding area. The majority’s criticism rests on assumptions about the Scoping Plan’s business-as-usual model, but technical details about that model are not in the record. Although the majority opinion views this shortcoming as a lack of substantial evidence, I am not convinced CEQA imposed a burden on the developer or lead agency to research and document a one-to-one correspondence with all details of the Scoping Plan’s model. Again, the level of evidentiary support the majority demands is inconsistent with our deferential standard of review.

C. *Conclusion*

I share Justice Chin’s concerns about delay and the possibility that CEQA compliance will become a moving target, impossible to satisfy. Here, the majority nominally approves DFW’s solution to a novel and difficult problem: how to measure the significance of a project’s greenhouse gas emissions. Yet, after approving the methodology for assessing significance, the majority undermines this outcome by challenging technical details that are inherent in that methodology. Having approved of DFW’s methodology, I would defer to its conclusion that the Newhall Ranch project’s emissions will fall below CEQA’s threshold of significance.

**CORRIGAN, J.**



### **DISSENTING OPINION BY CHIN, J.**

I respectfully dissent. I would affirm the judgment of the Court of Appeal. Its opinion, authored by Presiding Justice Turner, and joined by Justices Mosk and Kriegler, contains an extraordinarily thorough and careful review of the issues and reaches the correct result.

The majority decides three issues under the California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et seq.).

Regarding the first issue, I agree with the majority that the lead agencies — the California Department of Fish and Wildlife (DFW) and the United States Army Corps of Engineers — used a proper methodology in the environmental impact report (EIR) to determine whether the development would significantly impact the environment by its discharge of greenhouse gases. As the majority notes, CEQA is not a population control measure. (Maj. opn., *ante*, at p. 12.) If the development is not built, the 58,000 or so residents the planned community is intended to house, along with the necessary infrastructure and the proposed commercial enterprises, will be someplace else. Accordingly, the majority correctly rejects the project opponents' argument that the only permissible method is to compare the development with no development. It makes eminent sense, and comes within the lead agencies' discretion, to compare the proposed



development's greenhouse gas emissions with the emissions projected in a business-as-usual model to measure the emission reduction needed to comply with legally established goals for greenhouse gas reductions. I disagree, however, with the majority's conclusion that the EIR does not adequately explain why a projected 31 percent reduction in greenhouse gas emissions is consistent with legally mandated reduction goals.

Regarding the second issue, I disagree with the majority's holding that the proposal to move the unarmored threespine stickleback fish out of harm's way is a taking under the Fish and Game Code, and that, therefore, the EIR may not call the program a mitigation measure.

Regarding the third issue, compliance with the time requirements for making objections under CEQA is critically important so that litigation over an EIR does not become a never-ending battle of attrition with ever-changing targets for project opponents to aim for. However, under the very specific circumstances of this case, including the fact that the EIR fully addresses the objections, I agree with the majority that the Court of Appeal should not have found two of the objections forfeited. But because the Court of Appeal also rejected the arguments *on the merits*, convincingly showing that the EIR adequately considered the objections, the error provides no basis to reverse the judgment.

#### **A. Preliminary Comments**

“The Legislature has made clear that an EIR is ‘an informational document’ and that ‘[t]he purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project.’ [Citations.]” (*Laurel Heights Improvement Assn. v.*



*Regents of University of California* (1988) 47 Cal.3d 376, 391.) “The EIR is also intended ‘to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.’ ” (*Id.* at p. 392, quoting *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 86.)

The EIR in this case is one of the longest ever prepared under CEQA — which is appropriate, given that the project is one of the largest ever proposed in California. It was prepared over a period of at least five years, with ample opportunity for public input. The EIR does just what it is supposed to do. It has fully informed those who are entrusted to make the decisions, as well as the general public, of the project’s environmental impacts. Now it is time finally to let the decision makers make decisions.

As the majority summarizes, “[t]o be developed over about 20 years on almost 12,000 acres along the Santa Clara River west of the City of Santa Clarita, the proposed Newhall Ranch would consist of up to 20,885 dwelling units housing nearly 58,000 residents as well as commercial and business uses, schools, golf courses, parks and other community facilities.” (Maj. opn., *ante*, at p. 3.)

After much community and regulatory input, the project also promises to be very “green,” with large reductions in the amount of greenhouse gas emissions to be expected. The developer, the Newhall Land and Farming Company, summarizes that, as documented in the EIR, the proposed development will reduce greenhouse gas emissions “by providing, for example, improved insulation and ducting, low E glass, high efficiency heating and air conditioning, and radiant barriers in attic spaces.” Additionally, it will rely on various other design features to reduce the emissions, including:

- “(a) close proximity of homes to jobs and services;
- “(b) public transit;
- “(c) trails, paseos, and pathways for walking and biking;



- “(d) tree planting and native and drought-tolerant landscaping;
- “(e) energy efficient lighting;
- “(f) use of solar water heating for all Newhall Ranch recreational center pools;
- “(g) silver certification for the design and construction of Newhall Ranch fire stations and public library consistent with the ‘Leadership in Energy and Environmental Design’ . . . standards;
- “(h) comprehensive recycling;
- “(i) park-and-ride lot, bus stops, transit station, bus transfer station; and
- “(j) reservation of right-of-way for a Metrolink light rail line to facilitate residents relying less on vehicle travel.”

Neither the majority nor the project opponents dispute this summary.

The Newhall Ranch project has been thoroughly reviewed over a period of many years, resulting in an extraordinarily thorough EIR. (The portion concerning greenhouse gas emissions alone is hundreds of pages long.) After earlier litigation delayed the proposed project for several years, work on the current EIR began around 2005. After some five years of work, public comment, and revisions, the final EIR was certified in 2010. As the amicus curiae brief supporting the project filed by former Governors George Deukmejian, Pete Wilson, and Gray Davis notes, at different times and during different steps in the review process, eight different governmental agencies, representing every level of government, federal, state, and local, have studied, imposed conditions on, and, ultimately, approved the project: (1) the DFW, (2) the United States Army Corps of Engineers, (3) the United States Environmental Protection Agency, (4) the United States Fish and Wildlife Service, (5) the Los Angeles Regional Water Quality Control Board, (6) the Los Angeles County Local Agency Formation Commission, (7) the Los



Angeles County Board of Supervisors, and (8) the Los Angeles County Regional Planning Commission.

Each of these agencies has far greater expertise than this court in judging the merits of the proposal and determining what mitigation measures are appropriate and what conditions to impose. They also are responsible for planning and managing California's inevitable future population growth. Now project opponents have turned to the courts in their final effort to invalidate the 2010 EIR and derail the project, culminating in this action. This court should be cautious about overturning the considered judgment of these eight agencies. California's environmental laws are not intended to prevent development that is needed to accommodate the state's growing population. Instead they are designed to encourage *planned* development by ensuring that decisions regarding how to accommodate the state's growing population while protecting the environment are *informed*. The instant project is very thoroughly planned, and the detailed and careful EIR has fully informed the decision makers.

The majority finds two flaws in the EIR, which I discuss in order.

#### **B. Greenhouse Gas Emissions**

California has mandated substantial future reductions in greenhouse gas emissions. The mandate is critically important to our environment and must be treated very seriously. The EIR and the reviewing agencies had to consider very carefully the project's emission impact. And they did just that. As the EIR explains, the project, with the proposed mitigation measures, will result in a 31 percent reduction in greenhouse gas emissions from a business-as-usual model. The EIR fully explains this calculation. Neither the majority nor the project opponents disputes it. Indeed, the Court of Appeal opinion explains that evidence exists that this figure is actually "conservative."



The EIR also compares the 31 percent reduction to the reduction goal the Legislature established under the California Global Warming Solutions Act of 2006, commonly known as Assembly Bill No. 32 (2005-2006 Reg. Sess.) (Assembly Bill 32). As the majority explains, the EIR's method was modeled on the California Air Resources Board's determination that the reduction goal under Assembly Bill 32 is 29 percent from business as usual. (Maj. opn., *ante*, at p. 9.) It appears the lead agencies could have, in their discretion, used an even lower goal as its measurement. According to an analysis of the scoping plan conducted by the Bay Area Air Quality Management District (BAAQMD), “ ‘land use-driven’ sectors” will be expected to demonstrate only a 26.2 percent reduction in greenhouse gas emissions. (BAAQMD, Cal.) Environmental Quality Act Guidelines Update: Proposed Thresholds of Significance (May 3, 2010) pp. 12-13, 15.) But because the EIR used the higher goal of a 29 percent reduction, I will also.

Three recent Court of Appeal opinions have made clear that comparing the proposed reduction with Assembly Bill 32's reduction goal is a proper methodology within the agencies' discretion. (*Friends of Oroville v. City of Oroville* (2013) 219 Cal.App.4th 832, 841 [“The City properly adopted Assembly Bill 32's reduction targets for [greenhouse gas] emissions as the threshold-of-significance standard in determining whether the Project's [greenhouse gas] emissions constituted a significant environmental impact.”]; *North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors* (2013) 216 Cal.App.4th 614, 652 [“[T]he EIR concluded the Project would not interfere with achieving a 15 percent reduction in countywide [greenhouse gas] emissions, compared to 1990 levels, by 2020. This analysis more than satisfied the requirements of CEQA.”]; *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 336 [“Here, the City properly exercised its



discretion to utilize compliance with Assembly Bill No. 32 (2005-2006 Reg. Sess.) as the threshold.”]; see also *id.* at p. 337 [a reduction of greenhouse gas emissions 4 percent greater than Assem. Bill 32’s goal was sufficient].)

Here, the reduction was 2 percent greater than the established goal, rather than the 4 percent found adequate in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista*, *supra*, 197 Cal.App.4th 327. But the holding in that case did not turn on the exact amount the reduction exceeded the goal. The agencies did not abuse their discretion in adopting a methodology that three Courts of Appeal have approved.

Contrary to this authority, the majority holds that the EIR does not adequately explain how a 31 percent reduction in greenhouse gas emissions is consistent with Assembly Bill 32’s goal of a 29 percent reduction. Citing a letter from the California Attorney General’s Office, it suggests that a new development should exceed that goal by some amount — presumably an amount greater than 2 percent. (Maj. opn., *ante*, at p. 20.) For example, one expert group has proposed, as one possibility, a criterion of 50 percent reduction for new developments. (Cal. Air Pollution Control Officers Assn., CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the Cal. Environmental Quality Act (Jan. 2008) p. 33.) A 50 percent reduction would be impressive and certainly would be wonderful. But what might be ideal does not have the force of law. If the Legislature had enacted a statute requiring new developments to exceed the goal by a specified amount — or perhaps if an authoritative governmental agency charged with implementing the legislation had so specified — then we should enforce it. But the Attorney General’s letter and the project opponents’ arguments are not legally binding.

Indeed, recognizing that a 50 percent reduction is not legally required, the same expert group suggested other possibilities. As a recent law review article



explains, that group also stated that a possible approach would be to conclude that “an individual project that has greenhouse gas emissions that are 28-33 % less than such a project would otherwise have under a [business-as-usual] scenario could be considered less than significant for purposes of CEQA.” (Crockett, *Addressing the Significance of Greenhouse Gas Emissions under CEQA: California’s Search for Regulatory Certainty in an Uncertain World* (2011) 4 Golden Gate U. Envtl. L.J. 203, 215-216.) Additionally, as Justice Corrigan explains, the majority’s criticism of the EIR for failing to correlate its population density comparison with the business-as-usual comparison used in the Scoping Plan is unduly hyper technical and inconsistent with our deferential substantial evidence review. (Con. & dis. opn., *ante*, at pp. 4-5, citing Maj. opn., *ante*, at p. 22.) Given the absence of any expert or regulatory consensus regarding the best methodology, the lead agencies acted within their discretion in adopting their chosen methodology. The EIR fully explains that the proposed reduction in greenhouse gas emissions is greater than AB 29’s goal. No legal basis exists to determine that this is insufficient. Accordingly, the agencies acted within their discretion in finding that exceeding the targeted reduction would not significantly interfere with meeting the targeted reduction.

I would also find no prejudice. Only so much can be expected of an EIR. The EIR informed the decision makers and general public exactly what the project’s likely impacts would be. More is not required. (See *Environmental Protection Information Center v. California Dept. of Forestry & Fire Protection* (2008) 44 Cal.4th 459, 485.)

### **C. The Unarmored Threespine Stickleback**

To the extent the proposed project threatens harm to the unarmored threespine stickleback fish (stickleback), the EIR describes mitigation measures



that will be taken to protect it. Briefly stated, the project managers have developed a program whereby United States Fish and Wildlife Service employees and their agents (and *only* those personnel) will move the stickleback out of harm's way as necessary to protect them. No one seems to challenge this program's efficacy in protecting and preserving the species. But the majority interprets the Fish and Game Code as prohibiting the EIR from calling the program a mitigation measure.

I note, first, that the majority's holding has little substance. The majority makes clear that the United States Fish and Wildlife Service is *allowed* to protect the stickleback in this way. (Maj. opn., *ante*, at pp. 28, 33-34.) The majority is clearly correct in this regard. The Fish and Game Code does not prohibit this federal agency from protecting the stickleback. (See *Biological Diversity v. U.S. Fish, Wildlife* (9th Cir. 2006) 450 F.3d 930, 941-943.) All that the majority prohibits is referring to the program as a binding mitigation measure in the EIR. Because the EIR's purpose is to provide “ ‘*detailed information* about the effect which a proposed project is likely to have on the environment’ ” (*Laurel Heights Improvement Assn. v. Regents of University of California, supra*, 47 Cal.4th at p. 391, italics added), even the majority permits the EIR to discuss the program as a way to avoid harm to the stickleback. All the majority presumably requires the EIR's drafters to do is to use a phrase such as “avoid harm” or “protect the species,” and not use a word like “mitigate.”

The majority is also wrong as a matter of statutory interpretation. The stickleback is officially designated as both an “endangered species” and a “fully protected fish.” (Fish & G. Code, §§ 2062, 5515, subd. (b)(9); all further statutory citations are to this code.) “The Legislature . . . finds and declares that it is the policy of this state to *conserve*, protect, restore, and enhance any endangered species or any threatened species and its habitat and that it is the intent of the



Legislature, consistent with conserving the species, to acquire lands for habitat for these species.” (§ 2052.) Section 2061 defines “ ‘[c]onserve’ ” as using methods necessary to make the species no longer endangered, including “*live trapping*, and *transplantation*, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated *taking*.” (Italics added.) Between them, sections 2052 and 2061 permit, and indeed encourage, the program here, whereby the federal agency moves an endangered species like the stickleback out of harm’s way.

But the majority concludes that a provision concerning fully protected fish *prohibits* as a mitigating measure what the statutes concerning endangered species *encourage*. “[F]ully protected fish or parts thereof may not be taken or possessed at any time.” (§ 5515, subd. (a)(1).) The section excepts takings “for necessary scientific research,” but the exception does not include actions taken to mitigate a project. (*Id.*, subd. (a)(1), (2).) The question before us, therefore, is whether moving the stickleback out of harm’s way would be a prohibited taking. The majority concludes it is. The DFW and I disagree.

“ ‘Take’ means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” (§ 86.) Viewed in isolation, it is plausible (but far from compelled) to conclude that the program at issues does involve a taking within this definition. However, “[w]e do not examine [statutory] language in isolation, but in the context of the statutory framework as a whole in order to determine its scope and purpose and to harmonize the various parts of the enactment.” (*Coalition of Concerned Communities, Inc. v. City of Los Angeles* (2004) 34 Cal.4th 733, 737.)

Section 86’s definition of “take” applies to the entire Fish and Game Code, including section 2061, and not just to section 5515. (See § 2.) Section 2061 refers *separately* to “live trapping,” “transplantation,” *and* “taking,” which is



permitted in an extraordinary case. These separate references, and the special rule for taking, necessarily imply that “taking” is different than “live trapping” and “transplantation.” The majority does not explain what the difference is between “taking” and “live trapping” or “transplantation,” or why the program constitutes taking rather than live trapping or transplantation, as the DFW argues.

Viewed in light of section 2061, the DFW is correct that the planned movement is not a taking within the meaning of the code. Any reasonable interpretation of that word is that it has some connotation of harm to the species, although not necessarily mortal harm. Obtaining possession of the fish just long enough to move them from a place of danger to a place of safety, then letting them go, is not a taking; it is live trapping and transplantation.

The statutory scheme provides other clues that this is the correct interpretation. Section 2061 permits “regulated taking” as a method to conserve an endangered species in “the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved.” What this means is that if excessive population is itself threatening the species — perhaps due to insufficient resources to sustain the population — and the population excess cannot otherwise be relieved, the agency may employ regulated taking. This kind of taking must refer to a *permanent* taking that will reduce the population pressure, not merely a temporary movement of the fish from a place of danger to a place of safety. Section 5515 precludes such a regulated taking when used merely to mitigate the effects of a project, for example, when the project itself would reduce the resources and thus would itself cause the population pressure. All this would make sense. Contrary to the majority’s argument, my interpretation would give full effect to section 5515, subdivision (a). (See maj. opn., *ante*, at p. 30.) But nothing in section 5515 precludes the DFW’s interpretation of the proposed program as live trapping and transplantation, rather than a taking.



This interpretation harmonizes the entire statutory scheme, and does not make the scheme contain contradictory mandates — one mandate for endangered species and another mandate for fully protected fish. It is the interpretation the DFW — the agency charged with administering the law regarding endangered and fully protected species — has given it. We are not bound by the agency’s interpretation if it is obviously wrong, but we should at least give it deference. The DFW is far more expert in conserving endangered and fully protected fish than we are. It is not obviously wrong for that agency to view the program as live trapping and transplantation rather than taking.

The majority cites section 3511 as somehow suggesting that “live capture and relocation” (a concept essentially the same as the live trapping and transplantation cited in § 2061) is either the same as taking or a subset of taking. (Maj. opn., *ante*, at pp. 35-36.) The section contains no such suggestion. It states that “fully protected birds or parts thereof may not be taken or possessed at any time,” but the DFW “may authorize the live capture and relocation of those species pursuant to a permit for the protection of livestock.” This language prohibits taking but permits, in some circumstances, live capture and relocation, thus suggesting that the concepts are separate, not the same.

The majority’s reference to “hunting and killing animals” (maj. opn., *ante*, at pp. 33-34) is puzzling. Moving an endangered and fully protected species from a place of danger to a place of safety bears no resemblance to hunting and killing. Hunting and killing can readily be viewed as a taking, not live trapping and transplantation. But doing so does not compel the conclusion that moving a species to a place of safety is also a taking rather than live trapping and transplantation.

The majority invokes the specter of self-help by self-appointed amateur conservationists. (Maj. opn., *ante*, at p. 34.) Interpreting the program to be a



permitted live trapping and transplantation rather than a prohibited taking has nothing to do with self-help. The DFW and the United States Fish and Wildlife Service are not self-appointed experts, but governmental agencies mandated to protect and conserve endangered and protected species. I agree with the majority that the Legislature did not intend that “unauthorized persons found pursuing and catching a protected species seemingly could assert as a complete defense that they had no intent to harm the animal and would have restored or transplanted it to a safe habitat.” (*Ibid.*) The Fish and Game Code does not allow unauthorized persons to so act. Indeed, because the special rule concerning taking applies to fully protected fish only and not more generally to *endangered* species, the majority’s analysis would mean that “unauthorized persons found pursuing and catching” an endangered species “seemingly could assert as a complete defense that they had no intent to harm the animal and would have restored or transplanted it to a safe habitat.” The Legislature cannot have intended that either.

In short, to protect the stickleback as needed, the United States Fish and Wildlife Service can implement the program of the live trapping and transplantation of the fish from a place of danger to a place of safety. And, in describing the program, the EIR can call it a “mitigation measure” without violating the Fish and Game Code.

#### **D. Conclusion**

We have “caution[ed] that rules regulating the protection of the environment must not be subverted into an instrument for the oppression and delay of social, economic, or recreational development and advancement.” (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 576.) Today’s opinion threatens this very subversion.



The Newhall Ranch project has been very long in planning, approval, and litigation. The current EIR was finalized some five years ago. The two flaws the majority has found in the EIR can easily be fixed. (See maj. opn., *ante*, at pp. 23-27 [describing how the supposed error in finding that a 31 percent reduction in greenhouse gas emissions would not significantly interfere with meeting a targeted reduction of 29 percent can be fixed].) As noted, regarding the program to protect the stickleback, the lead agencies seemingly need only delete from the EIR any terms that sound like “mitigation” and use instead some other term such as “avoiding harm” or “protecting the species.” So, in one sense, one might ask what is the harm in sending the case back to fix these flaws.

The harm is in delay. This litigation has already delayed implementing the EIR some five years or so. Now this court is sending the case back to the Court of Appeal. Among other things, it is permitting the project opponents to relitigate some already decided issues even though the Court of Appeal fully rejected the arguments the first time. It also leaves it to the Court of Appeal, or perhaps to the superior court on a further remand, to decide the exact parameters of the writ of mandate to be issued. (Maj. opn., *ante*, at p. 40.) At some point, this appeal will end, and the writ will issue. At some point after that, the EIR will have to be revised, with the necessary period of public comment, etc. (although presumably limited to the two flaws the majority has found). Then it is predictable that yet more litigation will follow the finalization of the new EIR. Given the glacial pace of litigation, this will easily take years.

And it gets worse. The majority strongly hints that the time will come when compliance with goals established for the year 2020 will not be sufficient, and the proposed project will have to meet some different goals established for the future beyond 2020. (Maj. opn., *ante*, at pp. 16-17.) By the time this litigation ends, and the new EIR is prepared and finalized, we will be much closer to 2020



than when the current EIR was finalized in 2010. Delay can become its own reward for project opponents. Delay the project long enough and it has to meet new targets, and then perhaps new targets after that. All this is a recipe for paralysis. But CEQA is not meant to cause paralysis. Carefully planned green communities are needed to accommodate California's growing population. CEQA ensures the informed planning, but it does not prohibit the planned communities.

CEQA does nothing to control California's population growth. The 58,000 or so people the proposed project is intended to accommodate will not just go away. They will be living and working *somewhere*. And that somewhere will undoubtedly be far less green than this project promises to be. The longer the project is delayed, the longer the workplaces and residences of 58,000 people will be emitting business-as-usual amounts of greenhouse gases, rather than the greatly reduced amount projected under this project. Today's opinion will delay the project even longer.

I would affirm the judgment of the Court of Appeal and put an end to this litigation.

**CHIN, J.**



*See last page for addresses and telephone numbers for counsel who argued in Supreme Court.*

**Name of Opinion** Center for Biological Diversity v. Department of Fish & Wildlife

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**Unpublished Opinion**  
**Original Appeal**  
**Original Proceeding**  
**Review Granted** XXX 224 Cal.App.4th 1105  
**Rehearing Granted**

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**Opinion No.** S217763  
**Date Filed:** November 30, 2015

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**Court:** Superior  
**County:** Los Angeles  
**Judge:** Ann I. Jones

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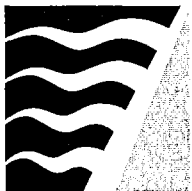
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CITY & COUNTY OF S.F.  
PLANNING DEPARTMENT  
M E A

October 28, 2010

Bill Wycko  
San Francisco Planning Department  
1650 Mission Street, Suite 400  
San Francisco, CA 94103-2479  
Subject: Draft GHG Reduction Strategy

Dear Mr. Wycko:

Bay Area Air Quality Management District (District) staff reviewed the City and County of San Francisco's (City's) Draft Greenhouse Gas Reduction Strategy (Strategy). We understand that the Strategy is a compilation of policies, programs and regulations that comprise San Francisco's greenhouse gas reduction efforts. The City's climate protection goal is to reduce the City's communitywide greenhouse gas (GHG) emissions 25% below 1990 levels by 2017. The Strategy includes a variety of documents characterizing the City's GHG emissions and describing approaches to reduce those emissions, including the City's Climate Action Plan.

The District applauds the City's proactive approach to reducing GHG emissions and supports its efforts in developing the GHG Reduction Strategy. The District's intent in creating the Qualified GHG Reduction Strategy as an operational threshold of significance in its CEQA Guidelines is to ensure that communities will develop in such a manner as to enable the State to meet its GHG reduction goals under AB 32. In its own GHG Reduction Strategy, the City has demonstrated that it is not only supporting the State in this endeavor, but is exceeding the State's own climate protection goals.

In some areas, the City has surpassed the minimum standard elements of a Qualified GHG Reduction Strategy as laid out in the District's CEQA Guidelines:

- the City's GHG reduction goal is more stringent than the State's AB 32 goal
- the City's 2008 GHG emissions inventory analysis and third party review indicates that the City is on track for meeting this aggressive target
- the City is committed to updating the GHG inventory every two years, exceeding the Guideline's recommendation that this be done a minimum of every five years
- the Strategy identifies 42 specific regulations required of new developments

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The District has the following suggestions for the City's future climate protection work:

- revise the 1990 community GHG baseline inventory to include emissions from the solid waste sector, wastewater/sewage treatment processes, and direct access electricity use (the District acknowledges that at the time the City conducted the 1990 baseline inventory, these sources of emissions were not typically included in all Climate Action Plans)
- extend the forecast/projection of emissions out to 2017 and 2020 in order to analyze progress toward meeting the City's 2017 target as well as the State's AB 32 goal
- ensure that emissions from policies adopted prior to the base year are not inappropriately credited against the target – only emission reductions due to expansions of policies, additional funding, etc. should be counted against the target, as the policies themselves would be considered "business as usual" when the baseline was conducted
- develop a mechanism to enable new projects to easily judge their consistency with the Strategy (for example, turn the tables in Chapter 9 into a project application checklist)

District staff believes the City's Strategy meets the criteria for a qualified GHG reduction strategy as described in the District's CEQA Guidelines. Aggressive GHG reduction targets and comprehensive strategies like San Francisco's help the Bay Area move toward reaching the State's AB 32 goals, and also serve as a model from which other communities can learn. District staff looks forward to working with the City and County of San Francisco as you move forward with your climate protection efforts.

If you have any questions, please do not hesitate to contact Abby Young, Principal Environmental Planner, at (415) 749-4754.

Sincerely,

A handwritten signature in black ink, appearing to read "Jean Roggenkamp", with the letters "JCR" written below it.

Jean Roggenkamp  
Deputy Air Pollution Control Officer

cc: BAAQMD Director Chris Daly  
BAAQMD Director Eric Mar  
BAAQMD Director Gavin Newsom





# SAN FRANCISCO PLANNING DEPARTMENT

## Compliance Checklist Greenhouse Gas Analysis

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### A. GENERAL PROJECT INFORMATION:

Instructions: Complete Sections A and B, below. Generally, only projects within the City and County of San Francisco can apply for a determination of consistency with the GHG Reduction Strategy.

**Date:** May 26, 2015

**Project name:** Golden State Warriors Event Center & Mixed-Use Development

**Case No:** 2014.1441E

**Project address and block and lot:** Mission Bay Blocks 29-32

**EP planner:** Brett Bollinger

**Brief Project description:** GSW Arena LLC (GSW), an affiliate of Golden State Warriors, LLC, which owns and operates the Golden State Warriors National Basketball Association (NBA) team, proposes to construct a multi-purpose event center and a variety of mixed uses, including office, retail, open space and structured parking on an approximately 11-acre site on Blocks 29-32 within the Mission Bay South Redevelopment Plan Area of San Francisco. The project site is bounded by South Street on the north, Third Street on the west, 16th Street on the south, and by the future planned realigned Terry A. Francois Boulevard on the east. The proposed event center would host the Golden State Warriors basketball team during the NBA season, and provide a year-round venue for a variety of other uses, including concerts, family shows, other sporting events, cultural events, conferences and conventions.

While many Planning Code requirements in Section B are largely not applicable to the project, Section B details the project sponsor's intent to meet these Planning Code requirements and also addresses compliance with other regulations which are required of the project (Building Code, etc.). Section C details the rationale for the project's compliance with San Francisco's GHG reduction strategy.

### B. COMPLIANCE CHECKLIST TABLE

Complete and attach to this form the appropriate compliance table by determining project compliance with the identified regulations and providing project-level details in the discussion column. Please note that Table 1 applies to Private Development Projects, Table 2 applies to Municipal Projects, and Table 3 is for plan-level analysis. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's qualified GHG reduction strategy.

Compliance Checklist Table attached: ☒ Table 1. Private Development

☐ Table 2. Municipal Project

☐ Table 3. Area Plan for \_\_\_\_\_



## C. DETERMINATION OF COMPLIANCE WITH CITY'S GHG REDUCTION STRATEGY

☒ Project Complies with San Francisco's *Strategies to Address Greenhouse Gas Emissions*

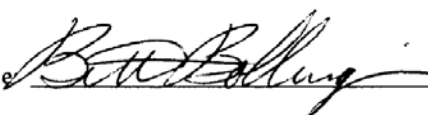
### Project Notes:

In addition to compliance with the applicable provisions of the GHG Reduction Strategy or their equivalents as detailed in the attached Compliance Checklist Table, the project sponsor applied for certification by the California State Governor as a leadership project under the Jobs and Economic Improvement Through Environmental Leadership Act of 2011 (AB 900). As discussed in the GHG section of the SEIR, one of the requirements for a project to qualify for streamlining under AB 900 is that the project may not result in any net additional GHG emissions. On April 20, 2015, the California Air Resources Board determined that based on the documentation submitted by the project sponsor, the proposed project would not result in any net additional GHG emissions for purposes of certification under AB 900.<sup>1</sup>

The proposed project would be subject to and required to comply with several regulations adopted to reduce GHG emissions as identified in the GHG Reduction Strategy. The proposed project would comply with the following regulations or their equivalent: Commuter Benefits Ordinance, Emergency Ride Home Program, Transportation Management Programs (see Project Description), Transit Impact Development Fee, Bicycle Parking requirements (the project would exceed these requirements and provide a total of 586 bicycle parking spaces), Fuel Efficient Vehicle and Carpool Parking (providing 51 carpool spaces and 51 fuel efficient spaces), San Francisco Green Building Requirements (increased energy efficiency, purchase of renewable energy credits, reduction of potable water consumption by about 35 percent, enhanced energy commissioning, San Francisco Stormwater Management Ordinance, San Francisco Water Efficient Irrigation Ordinance, Mandatory Recycling and Composting Ordinance, San Francisco Construction and Demolition Debris Recovery Ordinance, Street Tree Planting Requirements for New Construction (the project includes 79 new street trees), Light Pollution Reduction, Construction Site Runoff Control, Enhanced Refrigerant Management, Finished Material Pollutant Control, and Regulation of Diesel Backup Generators.

☐ Project Does Not Comply

If Project does not comply, provide discussion of non-compliant features:

Planner Name  Date of Determination: 05/26/2015

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<sup>1</sup> Corey, Richard W., Executive Director, Air Resources Board, 2015. Air Resources Board Executive Order G-15-022, Relating to Determination of No Net Additional Greenhouse Gas Emissions Under Public Resources Code section 21183, subdivision (c) for Golden State Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32, dated April 20, 2015.





# SAN FRANCISCO PLANNING DEPARTMENT

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## Compliance Checklist Table for Greenhouse Gas Analysis: Table 1. Private Development Projects

### A. GENERAL PROJECT INFORMATION:

**Date:** May 22, 2015

**Project Name:** Event Center and Mixed-Use Development at Mission Bay Blocks 29-32

**Case Number, Planning Department:** 2014.1441E

**Case Number, Office of Community Investment and Infrastructure:** ER 2014-919-97

**Project Address and Block/Lot:** Mission Bay South Redevelopment Plan Blocks 29-32;  
Assessor's Block 8722, Lots 001 and 008

**Standard to be Met (Select one)<sup>1</sup>:** LEED® Gold

**Compliance Checklist Prepared By:** Orion Environmental Associates

**Date:** May 22, 2015

**Brief Project Description:** GSW Arena LLC, an affiliate of Golden State Warriors, LLC that owns and operates the Golden State Warriors National Basketball Association (NBA) team, proposes to construct a multi-purpose event center and a variety of mixed uses on an approximately 11-acre site on Blocks 29-32 of the Mission Bay South Redevelopment Plan area of San Francisco. The rectangular-shaped project site is bounded by South Street on the north, Third Street on the west, 16th Street on the south, and the future planned realigned Terry A. François Boulevard on the east. The proposed event center would host the Golden State Warriors basketball team during the NBA season and would provide a year-round venue for a range of other uses, including concerts, family shows, other sporting events, cultural events, conferences, and conventions. The mixed-use development would support office and retail uses, open space, and structured parking.

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<sup>1</sup> Refers to the standard to be met per the San Francisco Green Building Code. See <http://sfdbi.org/administrative-bulletins> for latest "AB-093" to determine which standard your project is required to meet, if applicable.





# SAN FRANCISCO PLANNING DEPARTMENT

## B. COMPLIANCE CHECKLIST TABLE:

Table 1. Regulations Applicable to Private Development Projects

Regulation	Requirements	Project Consistency	Remarks
<b>Transportation Sector</b>			
Commuter Benefits Ordinance (San Francisco Environment Code, Section 427)	<p>All employers of 20 or more employees nationwide must provide at least one of the following benefit programs:</p> <p>(1) A Pre-Tax Election consistent with 26 U.S.C. § 132(f), allowing employees to elect to exclude from taxable wages and compensation, employee commuting costs incurred for transit passes or vanpool charges, or</p> <p>(2) Employer Paid Benefit whereby the employer supplies a transit or vanpool subsidy for each Covered Employee. The subsidy must be at least equal in value to the current cost of the Muni Fast Pass including BART travel, or</p> <p>(3) Employer Provided Transportation furnished by the employer at no cost to the employee in a vanpool or bus, or similar multi-passenger vehicle operated by or for the employer.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	<p>The project would be consistent with the Commuter Benefits Ordinance because all employers within the event center and mixed use development with 20 or more employees would participate in at least one of the benefit programs as required under this ordinance.</p> <p>The Golden State Warriors would have approximately 255 full-time equivalent (FTE) employees. There would be an additional 1,000 day-of-game non-Warriors employees on game days or an additional 675 to 1,000 day-of-event employees during other events. Retail and office uses are estimated to generate an additional 2,479 FTE non-Warriors employees, and individual employers with 20 or more employees would be required to comply with this ordinance.</p>
Emergency Ride Home Program	All San Francisco companies are eligible to register for the Emergency Ride Home program. Employers must register annually. Once registered, all San Francisco employees of the company are eligible to request reimbursement.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would comply with the Emergency Ride Home Program because the project sponsor would enroll in the program either provide the City-prepared flier or program brochure describing the program, or disseminate comparable information through other generally accepted methods of communication, to all employees. The project sponsor would also encourage tenants to enroll and would provide the same information to all tenants.



Regulation	Requirements	Project Consistency	Remarks
Transportation Management Programs (San Francisco Planning Code, Section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts (including downtown and mixed-use districts in the City's eastern neighborhoods and south of market) to implement a Transportation Management Program and provide on-site transportation management brokerage services for the life of the building.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this regulation because the project sponsor would prepare and implement a Transportation Management Plan to manage on- and off-site access for all anticipated travel modes. As part of the plan, the San Francisco Municipal Transportation Agency would also prepare a Transit Service Plan to provide for Muni transit services and facilities to accommodate transit demand generated by the proposed project. In addition, the project would comply with the Mission Bay Transportation Management Plan requirements.
Transit Impact Development Fee (San Francisco Planning Code, Section 411)	Establishes fees for all commercial developments. Fees are paid to DBI and provided to SFMTA to improve local transit services.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this regulation because the project sponsor will pay the fees in accordance with the Mission Bay Redevelopment Plan requirements.
Jobs-Housing Linkage Program (San Francisco Planning Code Section 413)	<p>The Jobs-Housing Program found that new large scale developments attract new employees to the City who require housing. The program is designed to provide housing for those new uses within San Francisco, thereby allowing employees to live close to their place of employment.</p> <p>The program requires a developer to pay a fee or contribute land suitable for housing to a housing developer or pay an in-lieu fee.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this regulation because the project is located within and is consistent with the overall approved Mission Bay South Redevelopment Plan. This Plan has identified land uses on a block-by-block basis that provides housing in proximity to commercial/industrial uses, which is consistent with the intent of this program. The Plan includes 6,400 housing units, of which over 29 percent will be affordable housing at full buildout. With respect to this specific project, residential uses are designated less than ¼ -mile north of the project site.



Regulation	Requirements	Project Consistency	Remarks
Tenant Bicycle Parking in Existing Commercial Buildings Ordinance (San Francisco Environment Code, Chapter 4, Section 402)	The San Francisco Tenant Bicycle Parking in Existing Commercial Buildings Ordinance requires commercial property owners to:  (A) Allow tenants to bring their bicycles to their leased space, or  (B) Provide secure bicycle parking on-site, or  (C) Provide off-site bike parking access for tenants	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	This regulation does not apply because no existing buildings would be used or modified under the proposed project. The project consists only of construction of new buildings.
Bicycle Parking, Showers, and Lockers in New and Expanded Buildings (San Francisco Planning Code, Section 155.1-155.4)	<p>Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. Refer to Section 155.2 and 155.3 for requirements by use.</p> <p>Non-residential projects that add 10 or more parking spaces: meet Planning Code section 155 or CalGreen Building Code Section 5.106.4 (provide short and long-term (secure) bicycle parking for at least 5% of motorized vehicle capacity), whichever is stricter.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	<p>The project would be consistent with this regulation because the project design for the event center and mixed use development would provide for a total of 586 bicycle parking spaces, including 111 Class 1 spaces within the office/retail buildings, 300 Class 2 spaces (which would be valet staffed on event days to make them Class 1 spaces), 100 Class 1 spaces in a temporary corral (as needed), and 75 Class 2 spaces for the office/retail buildings. In addition, the event center and the office/retail buildings would include showers and locker facilities.</p> <p>Based on the project's design of 950 on-site vehicle parking spaces, the CALGreen requirement calls for 5% of new off-street parking, or 48 bicycle spaces. Similarly, Planning Code Section 155 requires 1 bicycle space for every 20 new vehicle parking space or 48 bicycles spaces. The project would exceed these requirements.</p>
Bicycle parking in non-accessory parking garages (San Francisco Planning Code, Section 155.2)	No Class 1 spaces required. One Class 2 space for every 20 auto spaces, except in no case less than six Class 2 spaces. Where parking capacity is increased by 10 or more spaces, CalGreen Building Code Section 5.106.4 applies.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this regulation because the project design for the event center and mixed use development includes 586 bicycle parking spaces (including 375 Class 2 spaces) compared to 950 vehicle parking spaces, exceeding these requirements.



Regulation	Requirements	Project Consistency	Remarks
Bicycle parking in Residential Buildings (San Francisco Planning Code, Section 155.2)	(A) For projects up to 50 dwelling units, one Class 1 space for every 2 dwelling units.  (B) For projects over 50 dwelling units, 25 Class 1 spaces plus one Class 1 space for every 4 dwelling units over 50.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	The project does not include any residential uses, so this regulation does not apply.
Fuel Efficient Vehicle and Carpool Parking (San Francisco Green Building Code Section 5.103.1.10 and CalGreen Section 5.106.5)	Requires New Large Commercial projects, New High-rise Residential projects and Commercial Interior projects to provide designated parking for low-emitting, fuel efficient, and carpool/van pool vehicles. For projects with a parking capacity of more than 200 spaces, mark 8% of parking stalls for such vehicles.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this regulation because the project design for the event center and mixed use development includes a total of 21 fuel efficient vehicle (FEV) parking spaces, 30 spaces with vehicle charging stations (VCS), and 51 spaces for carpool vehicles. In the event that installation of 30 VCS parking spaces is not commercially reasonable, the project would provide 51 FEV and 51 carpool spaces. This represents 10.6% percent of the 950 total parking, exceeding the 8% requirement.
Car Sharing Requirements (San Francisco Planning Code, Section 166)	New residential projects or renovation of buildings being converted to residential uses within most of the City's mixed-use and transit-oriented residential districts are required to provide car share parking spaces.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	The project does not include any residential uses, so this regulation does not apply.



Regulation	Requirements	Project Consistency	Remarks
<b>Energy Efficiency Sector</b>			
San Francisco Green Building Requirements for Energy Efficiency (San Francisco Green Building Code 4.201.1, 5.201.1.1)	<ul style="list-style-type: none"> <li>Demonstrate compliance with California Energy Code (Title 24 Part 6 Energy Standards (2013)).</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with the energy efficiency requirements of the San Francisco Green Building Code and California Energy Code. The proposed development would be designed to LEED® Gold standards and would incorporate a variety of energy conservation and efficiency design features, such as high efficiency mechanical systems and lighting design, in order to comply with code requirements.
San Francisco Green Building Requirements for Commissioning of Building Energy Systems (LEED EA3, San Francisco Green Building Code 5.103.1.4, CalGreen 5.410.2 and 5.410.4)	<p>New non-residential buildings and alterations to non-residential buildings must conduct design and construction commissioning to verify energy and water using components meet the owner's or owner representative's project requirements. Commissioning requirements apply to all building operating systems covered by Title 24 Part 6, as well as process equipment and controls, and renewable energy systems.</p> <ul style="list-style-type: none"> <li>New non-residential projects ≥25,000 sq ft: complete Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – San Francisco Green Building Code Section 5.103.1.4 and CalGreen Building Code Section 5.410.)</li> <li>Non-residential new buildings and alterations &lt;25,000 square feet and ≥10,000 square feet: commission all energy systems (CalGreen Building Code Section 5.410)</li> <li>Non-residential new buildings and alterations less than 10,000 square feet, must complete testing and adjusting of energy systems. (CalGreen Building Code Section 5.410.4)</li> <li>New residential high rise, new commercial interior, and Major Alterations to Residential buildings must each commission building energy systems, meeting the LEED prerequisite EAp1.</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this regulation because the project would have a commissioning team performing the commissioning requirements per the Enhanced Commissioning of Building Energy Systems (meeting LEED EAc3 – San Francisco Green Building Code Section 5.103.1.4 and CalGreen Building Code Section 5.410).



Regulation	Requirements	Project Consistency	Remarks
San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2, Section 147)	All projects disturbing more than 5,000 square feet of ground surface must manage stormwater on-site using low impact design. Comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this regulation because it would comply with the post-construction requirements of the Stormwater Management Ordinance, including the Stormwater Design Guidelines, which would be a condition of obtaining a building permit. Stormwater management features of the project include typical low impact development (LID) practices, such as filtration basins, rain gardens, and extensive green roofs, as well as unique and innovative systems, such as a filtration ring installed on the arena itself. 4% of the hardscape and impermeable surfaces of the site, including typical roofs, would be treated in SFPUC regulation filtration basins. In addition, approximately 50,000 square feet (sf) of self-treating green roofs are included.
San Francisco Green Building Requirements for water use reduction (San Francisco Green Building Code 4.103.2.2 and 5.103.1.2; and CalGreen 4.303.1 and 5.303.2)	<p>All new buildings must comply with current California water fixture and fitting efficiency requirements. All fixtures and fittings within areas of alteration, or serving areas of alteration, must be upgraded to current California and San Francisco fixture and fitting water efficiency requirements. (For local requirements applicable to alterations, see Commercial Water Conservation Ordinance and Residential Water Conservation Ordinance below.) Additionally:</p> <ul style="list-style-type: none"> <li>• New large commercial and high-rise residential projects: incorporate fixtures and fittings cutting water consumption by a total of 30% (LEED WEc3)</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this regulation because it would comply with the water efficiency requirements of the San Francisco Green Building Code as a condition of obtaining a building permit. Proposed water fixture and fittings would reduce water consumption by a minimum of 35%. The project would utilize auto-sensor restroom lavatories, pint flush (0.125 gallons per flush [gpf]) urinals, 1.28 gpf water closets, 1.5 gpm break room sinks, and 1.5 gpm showerheads.



Regulation	Requirements	Project Consistency	Remarks
Commercial Water Conservation Ordinance (San Francisco Building Code, Chapter 13A)	<p>Requires all alterations to existing commercial properties to achieve the following:</p> <ol style="list-style-type: none"> <li>1. If showerheads have a maximum flow &gt; 2.5 gallons per minute (gpm), replace with <math>\leq 2.0</math> gpm.</li> <li>2. All showers have no more than one showerhead per valve.</li> <li>3. If faucets and faucet aerators have a maximum flow rate &gt; 2.2 gpm, replace with unit meeting current code: <ul style="list-style-type: none"> <li>- Non-residential lavatory: <math>\leq 0.4</math> gpm</li> <li>- Kitchen faucet: <math>\leq 0.8</math> gpm</li> <li>- Metering faucet: <math>\leq 0.2</math> gal/cycle</li> </ul> </li> <li>4. If toilets have a maximum rated water consumption &gt; 1.6 gallons per flush (gpf), replace with <math>\leq 1.28</math> gpf toilet.</li> <li>5. If urinals have a maximum flow rate &gt; 1.0 gpf, replace with <math>\leq 0.5</math> gpf unit.</li> <li>6. Repair all water leaks.</li> </ol>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	<p>This requirement does not apply to the project because the project consists of new construction of commercial properties and does not include the improvement of any existing commercial properties.</p>



Regulation	Requirements	Project Consistency	Remarks
Residential Water Conservation Ordinance (San Francisco Housing Code, Chapter 12A)	<p>Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards:</p> <ol style="list-style-type: none"> <li>1. If showerheads have a maximum flow &gt; 2.5 gallons per minute (gpm), replace with ≤2.0 gpm.</li> <li>2. All showers have no more than one showerhead per valve.</li> <li>3. If faucets and faucet aerators have a maximum flow rate &gt; 2.2 gpm, replace with unit meeting current code: <ul style="list-style-type: none"> <li>- Non-residential lavatory: ≤0.4 gpm</li> <li>- Residential lavatory: ≤1.5 gpm</li> <li>- Kitchen faucet: ≤0.8 gpm</li> <li>- Metering faucet: ≤0.2 gal/cycle</li> </ul> </li> <li>4. If toilets have a maximum rated water consumption &gt;1.6 gallons per flush (gpf), replace with ≤1.28 gpf toilet.</li> <li>5. If urinals have a maximum flow rate &gt;1.0 gpf, replace with ≤0.5 gpf unit.</li> <li>6. Repair all water leaks.</li> </ol> <p>Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	This requirement does not apply to the project because the project does not include any residential uses.
San Francisco Water Efficient Irrigation Ordinance (San Francisco Administrative Code, Chapter 63)	<p>Projects that include 1,000 square feet (sf) or more of new or modified landscape are subject to this ordinance, which requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption.</p> <p>Tier 1: 1,000 sf ≤ project landscape &lt; 2,500 sf</p> <p>Tier 2: Project landscape area is greater than or equal to 2,500 sf. Note: Tier 2 compliance requires the services of landscape professionals.</p> <p>See the SFPUC Web site for information regarding exemptions to this requirement. <a href="http://www.sfwater.org/landscape">www.sfwater.org/landscape</a></p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this requirement because the project would comply with San Francisco's Water Efficient Irrigation Ordinance as a condition of obtaining a building permit. Proposed water efficiency features for landscaped areas include low-water use planting selections, including extensive use of sedum and allium-based green roof materials, as well as soil mix design for a high available water holding capacity.



Regulation	Requirements	Project Consistency	Remarks
Residential Energy Conservation Ordinance (San Francisco Housing Code, Chapter 12)	<p>Prior to transfer of title as a result of sale (including condominiums), residential properties that received a building permit prior to July 1978 the seller must provide the buyer a certificate of compliance, and the certificate must be recorded with the San Francisco Recorder's Office. To comply, install the following measures as applicable:</p> <ul style="list-style-type: none"> <li>• attic insulation; weather-stripping all doors leading from heated to unheated areas; insulating hot water heaters and insulating hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building's exterior; and insulating accessible heating and cooling ducts.. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner.</li> <li>• Maximum required expenditure: \$1300 for 1-2 unit dwellings, and for buildings with 3 or more units, 1% of the assessed value or purchase price as applicable.</li> </ul> <p>Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (subject to CEQA) would be issued.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	The project does not include any residential uses, so this regulation does not apply.
San Francisco Existing Commercial Buildings Energy Performance Ordinance (San Francisco Environment Code Chapter 20)	<p>Owners of nonresidential buildings in San Francisco with <math>\geq 10,000</math> square feet that are heated or cooled must conduct energy efficiency audits, as well as to annually measure and disclose energy performance. Certain exceptions apply for new construction or if specified performance criteria are met.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	This requirement does not apply to the project because the project includes only new construction and no existing commercial buildings would be retained onsite.



Regulation	Requirements	Project Consistency	Remarks
<b>Renewable Energy</b>			
San Francisco Green Building Code: Renewable Energy (San Francisco Green Building Code 5.103.1.5)	New commercial buildings of $\geq 25,000$ square feet must either generate 1% of energy on-site with renewables (EAc2), or purchase renewable energy credits equal to 35% of total electricity use for at least 2 years (LEED EAc6), or achieve at least a 10% compliance margin beyond Title 24 2013.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this regulation because it would purchase Renewable Energy Certificates (RECs) equal to 70% of total electricity use for at least 2 years for those buildings $\geq 25,000$ square feet.
<b>Waste Reduction Sector</b>			
Mandatory Recycling and Composting Ordinance (San Francisco Environment Code, Chapter 19 and CalGreen 5.410.1)	<p>All persons in San Francisco are required to separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. (San Francisco Environment Code Chapter 19)</p> <p>All new construction, renovation and alterations must provide for the storage, collection, and loading of recyclables, compost and solid waste in a manner that is convenient for all users of the building. (San Francisco Environment Code Chapter 19 and CalGreen Building Code Section 5.410.1)</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this requirement because the project sponsor and its tenants would implement the requirements of San Francisco's Mandatory Recycling and Composting Ordinance and CalGreen Building Code for recycling. The project design would include the following features: Paper, glass, corrugated cardboard, plastic, and metals would be collected on site for recycling. Recycling bins and composting containers would be conveniently located throughout the buildings. They would then be collected and stored near the loading dock for hauling from the site.



Regulation	Requirements	Project Consistency	Remarks
San Francisco Construction and Demolition Debris Recovery Ordinance (San Francisco Environment Code, Chapter 14, San Francisco Building Code Chapter 13B, and San Francisco Health Code Section 288)	<p>Applies to all projects: No construction and demolition material may be taken to landfill or placed in the garbage. All (100% of) mixed debris must be transported by a registered hauler to a registered facility to be processed for recycling. Source separated material must be taken to a facility that recycles or reuses those materials.</p> <p>Additionally, projects that include full demolition of an existing structure must submit a waste diversion plan to the Director of the Department Environment and the plan must provide for a minimum of 65% diversion from landfill of construction and demolition debris, including materials source separated for reuse or recycling.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with these requirements because as part of the construction specifications, the project sponsor would require its contractors to comply with and implement San Francisco's requirements for recycling of construction debris.
San Francisco Green Building Code: Construction and demolition debris recycling (5.103.1.3 and 4.103.2.3)	In addition to complying with Construction and Demolition Debris Recovery Ordinance, new commercial buildings of ≥25,000 square feet and new residential buildings of 4 or more occupied floors must develop a plan to divert a minimum of 75% of construction and demolition debris from landfill, and meet LEED Materials & Resources Credit 2.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with these requirements because as part of the construction specifications, the project sponsor would require its contractors to comply with and implement San Francisco's mandatory requirements for diverting at least 75% of all wastes from landfills.
<b>Environment/Conservation Sector</b>			
Street Tree Planting Requirements for New Construction (San Francisco Planning Code Section 138.1)	Planning Code Section 138.1 requires new construction, significant alterations or relocation of buildings within many of San Francisco's zoning districts to plant one 24-inch box tree for every 20 feet along the property street frontage.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with these requirements because the project's landscaping design incorporates the requirements of the South Plan Area Streetscape Master. The project would include planting of 79 street trees along Third Street, 16th Street, and future alignment of Terry A. François Boulevard, approximately every 25 feet where possible.



Regulation	Requirements	Project Consistency	Remarks
Light Pollution Reduction (CalGreen 5.106.8)	For nonresidential projects, comply with lighting power requirements in CA Energy Code, CCR Part 6. Meet California Energy Code minimum for Lighting Zones 1-4 with Backlight/Uplight/Glare ratings meeting CalGreen Building Code Table 5.106.8.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this requirement project because the project design complies with and implements the light pollution reduction requirements of the CalGreen Building Standards Code, which would be a condition of obtaining a building permit. Light pollution reduction features of the project design include exterior lighting fixture selections that will have minimum Backlight, Uplight, and Glare (BUG) ratings as allowed by required illuminance levels.
Construction Site Runoff Control (Public Works Code Article 4.2, Section 146)	<p>San Francisco's Construction Site Runoff Control requirements apply to any project disturbing ≥5,000 square feet of ground surface. Covered projects must obtain a Construction Site Runoff Control Permit. Applicants must submit and receive approval of an Erosion and Sediment Control Plan prior to commencing any construction-related activities. The plan must be site-specific, and provide details of the use, location, and emplacement of the sediment and erosion control devices at the project site. For projects that involve disturbance of more than one acre of land and are located in an area served by a separate storm sewer system, applicants may submit a Storm Water Pollution Prevention Plan (SWPPP) that complies with the State of California's General Permit for Discharges of Storm Water Associated with Construction Activity in lieu of an Erosion and Sediment Control Plan.</p> <p>All construction sites, regardless of size, must implement BMPs to prevent illicit discharge into the sewer system. For more information on San Francisco's requirements, see <a href="http://www.sfwater.org">www.sfwater.org</a>.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this requirement because as part of the construction specifications, the contractors would be required to obtain and comply with the General Construction Activity Storm Water Permit. The project is located in an area served by a separate storm sewer system and as such, the project sponsor or its contractors would prepare and submit a site-specific SWPPP for all construction activities. During construction, the contractors would implement best management practices (BMPs) and comply with the conditions of the approved SWPPP.



Regulation	Requirements	Project Consistency	Remarks
Enhanced Refrigerant Management (CalGreen 5.508.1.2, and 5.508.2)	<p>Commercial buildings must not install equipment that contains chlorofluorocarbons (CFCs) or halons. Applies to new construction and all alterations.</p> <p>New commercial refrigeration systems containing refrigerants with Global Warming Potential (GWP) of 150 or greater, installed in food stores with 8,000 square feet or more of refrigerated display cases, walk-in coolers or freezers connected to remote compressor units or condensing units: Piping shall meet all requirements of 5.508.2 (all sections), and shall undergo pressure testing during installation prior to evacuation and charging. System shall stand unaltered for 24 hours with no more than a one pound pressure change from 300 psig.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this requirement because the project sponsor and its tenants (including the proposed food hall) would implement and comply with the CalGreen Building Code requirements for enhanced refrigerant management.



Regulation	Requirements	Project Consistency	Remarks
Finish Material Pollutant Control: Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen 5.504.4 – all sections.)	<p>These requirements apply to nonresidential projects:</p> <p>Adhesives, sealants, and caulks - Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives.</p> <p>Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints.</p> <p>Carpet - All carpet must meet one of the following:</p> <ol style="list-style-type: none"> <li>1. Carpet and Rug Institute Green Label Plus Program,</li> <li>2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350),</li> <li>3. NSF/ANSI 140 at the Gold level,</li> <li>4. Scientific Certifications Systems Sustainable Choice, OR</li> <li>5. California Collaborative for High Performance Schools EQ 2.2 and listed in the CHPS High Performance Product Database</li> </ol> <p>and carpet cushion must meet Carpet and Rug Institute Green Label, and indoor carpet adhesive &amp; carpet pad adhesive must not exceed 50 g/L VOC content.</p> <p>Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood, including meeting the emission limits in CalGreen Building Code Table 5.504.4.5.</p> <p>Resilient flooring systems - For 80% of floor area receiving resilient flooring, install resilient flooring complying with:</p> <ol style="list-style-type: none"> <li>1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program,</li> <li>2. Compliant with the VOC-emission limits and testing requirements of California Department of Public Health 2010 Standard Method for the Testing and Evaluation Chambers v.1.1,</li> <li>3. Compliant with the Collaborative for High Performance Schools (CHPS) EQ2.2 and listed in the CHPS High Performance Product Database, OR</li> <li>4. Certified under the Greenguard Children &amp; Schools Program to comply with California Department of Public Health criteria.</li> </ol>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would comply with these requirements because the project sponsor and its tenants would require that contractors implement and comply with the Finish Material Pollutant Control Requirements of the CalGreen Building Code, which would be a condition for obtaining a building permit.



Regulation	Requirements	Project Consistency	Remarks
Pollutant Control: Low-emitting Adhesives, Sealants, Caulks, Paints, Coatings, Composite wood, and Flooring (CalGreen 4.504 all sections.)	<p>These requirements apply to residential projects:</p> <p>Interior paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. See CalGreen Table 4.504.3 for details.</p> <p>Aerosol paints and coatings -- Meet BAAQMD VOC limits (Regulation 8, Rule 49) and Product-Weighted MIR Limits for Reactive Organic Compound. (CCR Title 17, Section 94520)</p> <p>Caulks, Construction adhesives, and Sealants – Meet SCAQMD Rule 1168. See CalGreen Tables 4.504.1 and 4.504.2.</p> <p>Composite Wood – Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood. See CalGreen Building Code Table 4.504.5</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	The project does not include any residential uses, so this regulation does not apply.
Wood Burning Fireplace Ordinance (San Francisco Building Code 3111.3; CalGreen 4.503.1 and 5.503.1)	<p>Wood burning fire places must be a direct-vent or sealed combustion unit and must be compliant with EPA Phase II limits (except those that are designed for food preparation in new or existing restaurants or bakeries). The combustion unit must be at least one of the following:</p> <ul style="list-style-type: none"> <li>• Pellet-fueled wood heater</li> <li>• EPA approved wood heater</li> <li>• Wood heater approved by the Northern Sonoma Air Pollution Control District</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this requirement because if the project were to include wood burning fireplaces, the project design would implement and comply with the San Francisco Building Code and CalGreen Building Code requirements for use of wood burning fireplaces.



Regulation	Requirements	Project Consistency	Remarks
Regulation of Diesel Backup Generators (San Francisco Health Code, Article 30)	<p>Requires (among other things):</p> <ul style="list-style-type: none"> <li>• All diesel generators to be registered with the Department of Public Health</li> <li>• All new diesel generators must be equipped with the best available control technologies as determined by the California Air Resources Board or the Bay Area Air Quality Management District.</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable	The project would be consistent with this requirement because the project sponsor would implement and comply with, and would require its tenants to implement and comply with, the requirements of Article 30 of the San Francisco Health Code addressing the use of diesel back up generators.



## Carroll, John (BOS)

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**From:** Carroll, John (BOS)  
**Sent:** Monday, November 30, 2015 3:02 PM  
**To:** dkelly@warriors.com; CPC-WarriorsAdmin; Givner, Jon (CAT); Stacy, Kate (CAT); Malamut, John (CAT); Nuru, Mohammed (DPW); Sanguinetti, Jerry (DPW); Sweiss, Fuad (DPW); Storrs, Bruce (DPW); Sanchez, Scott (CPC); Jones, Sarah (CPC); Rodgers, AnMarie (CPC); Starr, Aaron (CPC); Pearson, Audrey (CAT); Rahaim, John (CPC); Bollinger, Brett (CPC); Ionin, Jonas (CPC); kaufhauser@warriors.com; CMiller@stradasf.com; BOS-Supervisors; BOS-Legislative Aides; Patrick Soluri; Osha Meserve; Susan Brandt-Hawley; 'lippelaw@sonic.net'; Bohee, Tiffany (CII); Oerth, Sally (CII); Kern, Chris (CPC)  
**Cc:** Calvillo, Angela (BOS); Somera, Alisa (BOS); Carroll, John (BOS); BOS Legislation, (BOS)  
**Subject:** California Environmental Quality Act Appeal - Tentative Map Appeal - Golden State Warriors Event Center Project - December 8, 2015 Hearing Date

Good afternoon,

Today the Office of the Clerk of the Board received numerous documents relating to the appeals of the Final Subsequent Environmental Impact Report Certification and the Tentative Map for the proposed Golden State Warriors Event Center in Mission Bay South. In total, these documents add up to nearly 7000 pages of materials for the appeal files. For your convenience, this email links each document individually below.

Relating to the FSEIR certification appeal:

[Appellant Brief and Exhibits - November 30, 2015](#)

[Office of Community Investment and Infrastructure Appeal Response Brief and Exhibits - November 30, 2015](#)

[Draft Subsequent Environmental Impact Report - Published June 5, 2015](#)

[DSEIR Response to Comments - Published October 23, 2015](#)

[Mission Bay Alliance Brief - November 30, 2015](#)

[Golden State Warriors/National Basketball Association Brief and Exhibits - November 30, 2015](#)

Relating to the Tentative Map appeal:

[Appellant Brief and Exhibits - November 30, 2015](#)

**The appeal hearings for these matters are scheduled for 3:00 p.m. special order before the Board on December 8, 2015.**

I invite you to review the entirety of both matters on our [Legislative Research Center](#) by following the link below:

[Board of Supervisors File No. 150990 - Appeal of FSEIR Certification](#)

[Board of Supervisors File No. 151204 - Appeal of Tentative Map](#)

Thank you,

**John Carroll**

**Legislative Clerk**

Board of Supervisors

San Francisco City Hall, Room 244

San Francisco, CA 94102

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Click [here](#) to complete a Board of Supervisors Customer Service Satisfaction form.



The [Legislative Research Center](#) provides 24-hour access to Board of Supervisors legislation and archived matters since August 1998.

**Disclosures:** *Personal information that is provided in communications to the Board of Supervisors is subject to disclosure under the California Public Records Act and the San Francisco Sunshine Ordinance. Personal information provided will not be redacted. Members of the public are not required to provide personal identifying information when they communicate with the Board of Supervisors and its committees. All written or oral communications that members of the public submit to the Clerk's Office regarding pending legislation or hearings will be made available to all members of the public for inspection and copying. The Clerk's Office does not redact any information from these submissions. This means that personal information—including names, phone numbers, addresses and similar information that a member of the public elects to submit to the Board and its committees—may appear on the Board of Supervisors website or in other public documents that members of the public may inspect or copy.*





November 30, 2015

**BY HAND DELIVERY**

Board President London Breed and  
Members of the Board of Supervisors,  
as Governing Body of the Office of Community  
Investment and Infrastructure (Successor Agency to the  
Former San Francisco Redevelopment Agency)  
c/o Clerk of the Board of Supervisors  
#1 Dr. Carlton B. Goodlett Place  
City Hall, Room #244  
San Francisco, CA 94102-4689

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Re: OCII Case No. ER 2014-919-97; Planning Department Case No. 2014.1441E –  
Event Center and Mixed-Use Development at Mission Bay Blocks 29-32

Dear President Breed and Members of the Board:

On November 3, 2015, the Commission on Community Investment and Infrastructure certified the Final Subsequent Environmental Impact Report ("FSEIR" or "SEIR") for the Golden State Warriors Event Center and Mixed-Use Development on Blocks 29-32 in Mission Bay South (the "Event Center" or "Project"). The Commission also adopted CEQA findings and approved the Project based on the determination by the Executive Director of the Office of Community Investment and Infrastructure ("OCII") that the Project is consistent with the Mission Bay South Redevelopment Plan.

On November 13, 2015, the Mission Bay Alliance ("Appellant") appealed to this Board the Commission's decision to certify the SEIR. As Project sponsor, the Warriors believe the SEIR complies with the California Environmental Quality Act ("CEQA"), and urge the Board to affirm the certification of the SEIR and reject the appeal.

OCII, Planning Department Staff and the City's environmental consultants have prepared an exhaustive analysis of the issues raised in the appeal. In fact, that analysis is so detailed and comprehensive that we have little to add. We write separately to provide our perspective on the appeal as a whole, and to provide the Board with information that might not otherwise be reflected in the record.

**GOLDEN STATE WARRIORS • NATIONAL BASKETBALL ASSOCIATION**

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**1. Appellant Is Abusing the CEQA Process as a Means of Trying to Delay, if not Kill, the Project.**

In our view the record makes it clear – in fact, obvious to any objective observer – that Appellant has abused, and is abusing, the CEQA process. Appellant is not a longstanding, grass-roots organization. Appellant does not represent environmental or neighborhood advocates. Appellant initially claimed to be concerned with protecting the interests of the University of California, San Francisco (“UCSF”); following UCSF’s endorsement of the Project, however, Appellant re-characterized its concern as protecting Mission Bay’s biotech companies. As evidenced from the letter dated October 20, 2015, from the Mission Bay Life Sciences Community (Attachment A), Mission Bay’s biotech companies support the Project as well.

Notably, no individual member of Appellant has appeared at a hearing. Instead, public statements are made by hired spokespeople. Every document sent to OCII on behalf of Appellant has come from a lawyer or a consultant. At the OCII Commission’s hearing, 35 people spoke. 32 spoke in support.<sup>1</sup> Three spoke in opposition. Of these, two spoke on behalf of Appellant. Both were lawyers hired by Appellant. Individuals who are members of Appellant are nowhere to be found in OCII’s record.

Appellant’s lawyers are experienced and able. They know which levers to pull in order to attempt to bog down the CEQA process. They have set about their task with zeal. They recruited a team of consultants in an attempt to pick apart virtually every section of the SEIR. Their hired consultants are also well known. In fact, these consultants are generally hired by economic interests, such as business competitors, in order to use the CEQA process to force economic concessions, or to obstruct projects that pose a competitive threat. Their credibility as experts should, in our view, be taken with a very large grain of salt.<sup>2</sup>

The logical conclusion is that Appellant represents a handful of very wealthy people who, although they neither live nor work in the vicinity of the Event Center, are determined to stop the Project. Nothing else can explain the blizzard of comments produced by the team of lawyers and consultants, the sheer volume of which suggests the practical equivalent of an unlimited budget –

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<sup>1</sup> / That 32 of 35 people spoke in favor illustrates the breadth and depth of support for the Project. This support comes from a broad spectrum of neighbors, businesses, labor, and other stakeholders, representing all segments of the City’s diverse community. These supporters have shown their enthusiasm for the Project at countless community and agency hearings over the last 12+ months.

<sup>2</sup> / Our CEQA counsel, Remy Moose Manley LLP, has considerable experience with two of Appellant’s key consultants: traffic consultant Dan Smith and economist Dr. Philip King. It is fair to say that Mr. Smith and Dr. King are prolific critics of CEQA analyses performed throughout the state. Counsel’s observations are provided in a letter appearing as Attachment B to this letter.



something almost never associated with a true grass-roots environmental organization. Press reports quote Appellant's spokesperson as saying on July 28, 2015 – the day after the comment period closed – that Appellant's strategy is to "fight the Warriors' owners until Hell freezes over – and then we are going to fight them on the ice."<sup>3</sup> In keeping with this strategy, Appellant has seized every opportunity to carpet-bomb OCII with comments in hopes of inflicting as much pain and costly delay as possible.

From the outset, the actions of Appellant's lawyers and consultants make clear that Appellant has no authentic interest in the environment. Appellant's representatives publicly attacked the Project as early as April 2015, more than a month before the Draft SEIR had even been released for review. Appellant's comments on the Draft SEIR span 326 pages, not including exhibits. On October 13, 2015 – 11 months after OCII launched the environmental review process, more than four months after OCII published the Draft SEIR, and more than two months after the deadline for submitting comments – Appellant unveiled a "new" alternative site near Pier 80.<sup>4</sup> On November 2 and 3, on the eve and morning of the OCII Commission's hearing, Appellant submitted another eight letters with further attached reports from hired consultants spanning an additional 328 pages (not including exhibits or duplicates). These last-second comments attack virtually every nook and cranny of the SEIR; they essentially re-litigate all the issues raised in their comments on the Draft SEIR. Even after OCII certified the SEIR and approved the Project, the deluge continued; Appellant's lawyers submitted another five letters with attached reports from consultants.

Appellant has repeatedly asked for delays and extensions, and has accused OCII of a "rush job." But OCII's public review opportunities uniformly exceed those required by CEQA. No part of OCII's environmental review process has been truncated or abridged. In fact, although all prior projects in the Mission Bay Redevelopment Plan area have been approved by OCII pursuant to addenda to the 1998 Final SEIR for Mission Bay, OCII prepared a Subsequent EIR for the proposed Event Center, thereby analyzing in detail environmental impacts that would not have been included as part of an addendum. The certification of the Final SEIR represents the culmination of more than three years of planning since the Warriors first announced their intention to move to a new arena in San Francisco.

The only aspect of the Project that is subject to an accelerated time frame is the litigation that appears likely to follow an affirmative decision by the Board. In May 2015, Governor Brown certified the Project as an Environmental Leadership Development Project under

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<sup>3</sup> / KQED News, *The Big 'If' in UCSF's 'Support' for Golden State Warriors Arena* (July 28, 2015) (Attachment C).

<sup>4</sup> / The site proposed by Appellant is located well south of the Mission Bay site. The Planning Department considered this area months ago, and concluded it offered no environmental advantages over Blocks 29-32. The alternative site is owned by a mosaic of private and public landowners. None of the land is for sale. In approving the Project, OCII found that the alternative site was infeasible, and cited the reasons why. We agree.



Assembly Bill 900 (Pub. Resources Code, § 21178 et seq.). On May 27, 2015, the Joint Legislative Budget Committee of the State Senate and Assembly concurred in that determination. Governor Brown's decision is non-reviewable and final. (Pub. Resources Code, § 21184, subd. (b).) The Governor's certification did not relax any of the rules governing OCII's preparation of the SEIR, or shortcut any opportunities for public review. Quite the contrary: in order to gain the Governor's certification, among other things, the Warriors had to demonstrate the Project met a number of criteria, including:

- The Project will not result in a net increase in greenhouse gas emissions pursuant to a methodology determined by the State Air Resources Board;
- The Project will result in a minimum investment of \$100 million;
- The Project will create high-wage, highly skilled jobs that pay prevailing wages and living wages; and
- As lead agency, OCII had to prepare and post its record of proceedings (at the Warriors' expense) concurrently with the administrative process.

(Pub. Resources Code, §§ 21183, 21186.)

Having met these criteria, the Governor's certification means simply that litigation challenging OCII's decision to certify the SEIR must be resolved within 270 days. (Pub. Resources Code, § 21185.) Thus, Appellant no longer has the threat of bogging down OCII's decision in years of CEQA litigation. If litigation is filed, the lawsuit will be promptly resolved. It is hard to understand exactly what is wrong with that, or how expeditious resolution of CEQA litigation somehow threatens the environment, or the agency's environmental review process. What it does threaten, if anything, is Appellant's public pronouncement that it plans to "litigate until the cows come home."

The CEQA process is designed to be open and iterative. The agency prepares and shares its analysis; interested persons and agencies weigh in; the agency responds; and the project evolves to address legitimate concerns. The Courts recognize that the CEQA process is designed to operate in this way. As the First District Court of Appeal recently observed, "CEQA allows, if not encourages, public agencies to revise projects in light of new information revealed during the CEQA process." (*Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4th 1036, 1062.)

As part of this process, the CEQA Guidelines state that the Final EIR should include "good faith" responses to comments on the Draft EIR that raise significant environmental issues. (CEQA Guidelines, § 15088, subd. (c).) Because the process is open, anyone who wishes to submit comments on the Draft EIR can do so, and these comments (and the agency's responses) become part of the agency's record. Most of those who participate do so in a constructive spirit.



Board President London Breed and  
Members of the Board of Supervisors  
November 30, 2015  
Page 5

But there is nothing to prevent commenters from heaping voluminous comments on the agency, for no other reason than to enlarge the agency's burden of responding to those comments.

In this case, we urge the Board not to equate volume with substance. We believe the sheer volume of comments is not, in itself, reason enough to go back and repeat the CEQA process. If it were, project opponents would possess a powerful weapon to stall indefinitely even the most benign projects. "A project opponent . . . can always imagine some additional study or analysis that might provide helpful information. It is not for them to design the EIR. That further study . . . might be helpful does not make it necessary." (*Laurel Heights Improvement Assn. of San Francisco, Inc. v. The Regents of the University of California* (1988) 47 Cal.3d 376, 415.) Indeed, the Fourth District Court of Appeal recently confronted another instance in which a commenter dumped a barrage of comments on an agency, and then argued in litigation that the agency's responses were inadequate. In rejecting this argument, the Court observed:

At its best, the comment-and-response process in CEQA produces a *better EIR*, by bringing to the attention of the public and decision makers significant environmental points that might have been overlooked. After all, an EIR is an informational document [citation] and when comments [] reveal a significant, overlooked environmental effect, the necessity of a non-conclusory response forces decision makers to confront the real downsides to a development project. [Citations.]

But the comment-and-response process can also be abused. At its worst, it could become an end in itself, simply a means by which project opponents can subject a lead agency's staff to an onerous series of busywork requests and "go fetch" demands. As Presiding Justice McConnell wrote in *Citizens for Responsible Equitable Environmental Development v. City of San Diego* (2011) 196 Cal.App.4th 515, 524 [129 Cal. Rptr. 3d 512], the point of CEQA, "is to inform government decision makers and their constituency of the consequences of a given project, not to derail it in a sea of administrative hearings and paperwork." This case is an example of the drowning in "paperwork" Presiding Justice McConnell warned about.

(*City of Irvine v. County of Orange* (2015) 238 Cal.App.4th 526, 557-558, emphasis in original.)

If anything, the current record reflects a particularly egregious example of such abuse.

As the California Supreme Court has emphasized, "[t]he wisdom of approving this or any other development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced. Concurrently, we caution that rules regulating the protection





of the environment must not be subverted into an instrument for the oppression and delay of social, economic, or recreational development and advancement.” (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 576.)

Here, OCII, Planning Department staff and consultants have painstakingly reviewed the comments submitted by Appellant’s lawyers and consultants, and provided extensive responses. None of Appellant’s comments raises a serious environmental issue. We urge the Board to reject the appeal.

**2. Appellant’s Opposition Is Based on the Misplaced Notion that the Site Should Be Left Fallow for an Indefinite Period in Hopes Viable Biotech Uses Emerge Someday.**

Appellant states that uses in Mission Bay were intended and should be limited to biotech and life science R & D facilities, presumably arguing that the property at Blocks 29-32 should be remain undeveloped or “land-banked” until such time as a biotech user materializes to utilize the site. However, the claim that Mission Bay was designed and entitled to prohibit land uses other than biotech is incorrect, as explained in the Response to Comments and in OCII’s responses prepared to Late Comments. The clinical uses located at UCSF’s Mission Bay Medical Center, not originally anticipated in the Mission Bay South Redevelopment Plan, represent just such an alternative land use.

As described in staff report to the San Francisco Redevelopment Agency (“Agency” or “SFRA”) Commissioners for the Commission’s meeting of September 20, 2011 (see Attachment D), a prior owner of Blocks 29-32, Alexandria Real Estate Equities, obtained approval of a Major Phase application for Blocks 29-32 in 2006 and, in 2008, obtained approval of Schematic Design drawings for buildings on Blocks 30 and 32. Alexandria is a leading developer of life science lab and office space and the fully entitled property would have been available for purchase and/or lease and use for life science and biotech uses at that time. No biotech or life science users materialized, so in 2010, Alexandria sold the site to salesforce.com along with other parcels held by Alexandria in Mission Bay, for use by salesforce.com as its corporate office campus.

The salesforce.com proposal was for general office use, not life sciences or biotech. In 2011, salesforce.com submitted a Major Phase/Master Plan application from salesforce.com that included Blocks 29-32. As described in the September 20, 2011 staff report, the Major Phase application called for an approximately two million square-foot corporate office headquarters for a technology company on 14 acres in Mission Bay South, including Blocks 29-32, Blocks 26-28 and Blocks 33-34. As described in the staff report, the Major Phase was intended to serve as a detailed Master Plan for the salesforce.com campus, including eight new main buildings with a large new open space in the center. In addition to office space for salesforce.com, the project also included retail, childcare facilities, automobile and bicycle parking, service and loading areas



and a series of smaller open spaces, and was estimated to house between 8,000 and 10,000 employees. None of the 14-acre site was to be used for life sciences or biotech facilities.

On September 20, 2011, the Agency approved the Major Phase application (SFRA Resolution 97-2011 – see Attachment E). On January 31, 2012, the Agency approved Schematic Design drawings for four salesforce.com office buildings on Blocks 29-32 (SFRA Resolution Nos. 2012-10 through 13, described in the staff report for the January 31, 2012, meeting – see Attachment F). Again, none of these buildings was intended for life science or biotechnology companies.

In 2012, the salesforce.com office campus project was calendared for consideration and approval by the San Francisco Planning Commission (a copy of the Planning Commission staff report is at Attachment G). Shortly before proceeding to approval hearings in February 2012, salesforce.com announced that it was abandoning its plans to build a campus in Mission Bay. At that time, it was widely known that the property was for sale. In fact, UCSF quickly engaged in discussion with salesforce.com to buy a portion of the property at Blocks 33 and 34. (A copy of a news article about that negotiation is at Attachment H.) Life science and biotech users had an opportunity to acquire the property after salesforce.com announced it was abandoning its plans and locating its headquarters in downtown San Francisco, but no such buyer materialized and the Warriors acquired the property instead.

In summary, the property at Blocks 29-32 is private property and has been available for acquisition on at least two separate occasions in recent years.

The Warriors submitted a letter into the record from Rick Welts, president of the Project sponsor, which attached a copy of a letter from the Master Developer of Mission Bay, Mission Bay Development Group (“MBDG”). The MBDG letter explains the Mission Bay development construct in which infrastructure that serves the entire area, including affordable housing development, was financed with tax increment bonds. The use of such a financing structure mandates that the “increment” or increase in the tax base in the area must be created in projected amounts and at projected times in order to repay the bonds and to finance other benefits in the plan area, such as affordable housing. As a consequence of the repayment obligations of the tax increment bonds, the private sale transactions among the various property owners in Mission Bay includes an interlocking set of obligations to construct certain amounts of new development within particular time frames. Failure to commence and complete the amount of square footage required on any given parcel within specified time periods gives rise to liquidated damage payments on the part of the defaulting owner. These payments are necessary to ensure the projected revenue stream required to support the bonds. Consequently, properties within Mission Bay cannot be “land banked” without consequence. Appellant’s proposal could cause the land to remain unused for an indefinite period, which runs counter to the entire financing structure of Mission Bay.



**3. The Record Shows the Warriors Have Worked in Good Faith with OCII, the City, and other Stakeholders to Address Legitimate Concerns.**

We acknowledge that the Event Center is not a “typical” office building. In particular, basketball games, other sporting events, and concerts will attract up to 18,000 patrons, some of whom will travel to the site by car. Our neighbors, including UCSF, have a legitimate interest in ensuring that the Event Center does not cause gridlock, particularly on those few occasions when events overlap with San Francisco Giants’ games at AT&T Park.

We have worked hard to address these concerns. Since as early as November 2014, the Warriors have engaged in lengthy and continual outreach to the Mission Bay Citizen Advisory Committee and other key stakeholders, including UCSF, the Mission Bay life science community, neighborhood leaders from South Beach, Rincon Hill, Mission Bay, Dogpatch and Potrero Hill, the SF Giants, the San Francisco Bicycle Coalition, and local businesses and merchants. Working with the San Francisco Metropolitan Transportation Authority, UCSF, the Mayor’s Office, the Planning Department, and others, the Warriors have continually refined plans to manage Project-related traffic. The SEIR describes these measures. The analysis is detailed and specific, and need not be repeated here. We believe, however, that the following facts bear emphasis:

- Traffic to and from the Event Center is in large measure counter-cyclical and off-peak. Night-time events begin after the rush hour, and many of those coming to the site are traveling in the opposite direction from many commuters.
- The site is on a transit stop on the T-Third line, which will be connected to the new Central Subway by 2019. Revenue from the Project will be finance expanding this stop, upgrading the T-Third line, and purchasing additional light-rail cars. Revenue from the Project will also be used to pay for increased shuttle service between Mission Bay and regional transit providers, and for deployment of an expanded network of “parking control officers” (“PCOs”), including PCOs specifically aimed at ensuring that those traveling to the Event Center do not interfere with access to UCSF or its hospital.
- We have reached out to key stakeholders in the area, particularly UCSF. These efforts culminated in a memorandum of understanding (“MOU”) with UCSF committing the Warriors to control peak-event traffic around the UCSF campus, particularly as a means to maintain hospital access. The MOU also commits the Warriors to scale back the number of peak events overlapping with Giants’ games, if certain traffic targets are not met. No other sports arena in the country has made such commitments. We appreciate UCSF’s willingness to work with us in a constructive way.
- The record shows that the Warriors have been flexible about finding a site that works. The Warriors initially proposed to locate the Event Center at Piers 30-32. As the



Board President London Breed and  
Members of the Board of Supervisors  
November 30, 2015  
Page 9

SEIR explains, during the course of the environmental review process for that site, regulatory and financial hurdles emerged that raised questions about the feasibility of that site. The Warriors responded by identifying a site that did not pose those same hurdles, while at the same time working with responsible stakeholders to ensure that legitimate concerns would be addressed.<sup>5</sup>

The Project approved by OCII is the culmination of these efforts. The Warriors are committed to implementing the mitigation measures and improvement measures that have been identified in the course of this process. We look forward to working with OCII, the City, UCSF, and the Mission Bay community to those ends. We urge the Board to reject the appeal.

Very truly yours,



David J. Kelly  
General Counsel

---

<sup>5</sup> / The Warriors' efforts are not limited to traffic. For example, based on consultations with UCSF, we have adjusted our construction plans to ensure we will not interfere with use of UCSF's helipad. We are also taking steps to ensure the Project will be a safe and comfortable place for patrons and members of the community to gather; thus, although not an environmental issue, the Project incorporates landscaping and design features to protect the plaza area from wind.



Board President London Breed and  
Members of the Board of Supervisors  
November 30, 2015  
Page 10

List of Attachments

- A Letter from Mission Bay Life Sciences Community to Rick Welts, President and Chief Operating Officer, Golden State Warriors (October 20, 2015)
- B Letter from Whitman F. Manley, Remy Moose Manley LLP, to David J. Kelly, General Counsel, Golden State Warriors (November 30, 2015)
- C KQED News, *The Big 'If' in UCSF's 'Support' for Golden State Warriors Arena* (July 28, 2015)
- D Staff Report to SFRA (September 20, 2011)
- E SFRA Resolution 97-2011 (September 20, 2011)
- F Staff Report to SFRA (January 31, 2012)
- G Staff Report to San Francisco Planning Commission (February 22, 2012)
- H San Francisco Chronicle, *UCSF, Salesforce in talks for S.F. Mission Bay Land Deal*, (March 15, 2014)
- I Letter from Rick Welts, President and Chief Operating Officer, Golden State Warriors, attaching letter from Master Developer of Mission Bay Development Group (October 23, 2015)



Golden State Warriors • National Basketball Association  
1811 Broadway • Oakland, CA 94607-4027  
510.986.2200 • 888.GSW.HOOP • warriors.com



## MISSION BAY LIFE SCIENCE COMMUNITY

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October 20, 2015

Mr. Rick Welts  
President and Chief Operating Officer  
Golden State Warriors  
1011 Broadway, Oakland, CA 94607

Re: Warriors Mission Bay Arena Project

Dear Rick:

We, a group of Mission Bay life science companies, are writing to express our support for the Warriors' Mission Bay Arena Project. Over the last several months, we have participated in the collaborative planning discussions for this project, and appreciate the commitment shown by both the Warriors and the City of San Francisco to understanding and addressing the concerns of the various parties.

Our growing life science businesses are proud to fuel San Francisco's innovation economy by focusing on a full spectrum of life science research and development addressing life-changing therapies for patients with cancer, Alzheimer's disease, heart disease, kidney disease, hepatitis B, blood disorders, and other health problems, pioneering diagnostic tools and clean energy solutions.

Our operating needs extend beyond those of traditional office tenants, and include laboratories and sensitive equipment that require careful protection, monitoring and calibration. Our ongoing Arena Project discussions have demonstrated that our companies, along with the Warriors, UCSF, and others co-located in this exciting part of the city, share a joint concern about keeping Mission Bay vibrant and accessible at all times, including days of scheduled events.

The planning discussions have brought us all together to resolve these concerns. We believe we will be able to reach consensus on resolutions that are in the long-term interest of the Mission Bay community, and of the City of San Francisco as a whole.

Sincerely,

Alexandria Real Estate Equities, Inc.  
Assembly Biosciences, Inc.  
Bayer HealthCare  
California Life Sciences Association  
Celgene, Inc.  
EcoRI Capital, LLC  
FibroGen, Inc.

Illumina, Inc.  
Nektar Therapeutics  
OncoSynergy, Inc.  
Pfizer CTI-SF  
Siluria Technologies, Inc.  
Silver Creek Pharmaceuticals

cc: Hon. Edwin Lee, Mayor, City of San Francisco  
Todd Rufo, Director of Economic and Workforce Development, City of San Francisco  
Bob Linscheid, President and CEO, San Francisco Chamber of Commerce



November 30, 2015

Mr. David J. Kelly, Esq.  
Golden State Warriors  
1011 Broadway  
Oakland, California 94607

Re: Mission Bay Alliance – Traffic and Urban Decay Consultants

Dear Mr. Kelly:

As you are aware, the Mission Bay Alliance has submitted voluminous comments claiming nearly every aspect of the Subsequent Environmental impact Report (“SEIR”) fails to comply with the California Environmental Quality Act (“CEQA”). The Alliance has been forthright in its objective to delay the project by any means. To maximize delay, project opponents will sometimes hire consultants to bombard public agencies with comments on particular topics regardless of the content, or adequacy, of an EIR’s analysis. In our experience, this abuse of the CEQA process is much too common and severely undermines the goals of the Act.

You have asked us whether our firm has had experience with the Alliance’s traffic and urban decay consultants – Mr. Daniel T. Smith and Dr. Phillip King, respectively – and whether we could provide insight regarding their proclivity for writing letters on behalf of project opponents.

Our firm has worked on a wide variety of projects throughout the State. We represent a diverse array of public agencies and private entities. In our role as CEQA counsel, we help public agencies navigate the CEQA process and defend CEQA documents when litigation ensues. Throughout the years, we have encountered both Mr. Smith and Dr. King on a fairly regular basis. The sheer volume of projects these consultants challenge suggests that they are not discerning in the analyses they will attack. We are not aware of any instances in which either Mr. Smith or Dr. King has stated on the record that they believed an agency’s analysis was adequate; rather, their comments appear to consist solely of criticizing the work of others.

In several cases in which we have been involved, petitioners have sued and, in the litigation, cited comments from Mr. Smith or Dr. King to support their view that the agency violated CEQA. The following summary provides information on the outcome of those cases.



**Daniel T. Smith (Smith Engineering and Management)**

Mr. Smith is a well-known and prolific traffic consultant. We have had numerous encounters with Mr. Smith over the years. In our experience, he is a “go to” consultant for those who wish to attack an agency’s transportation analysis. Certain of his criticisms appear again and again. A few of our encounters with Mr. Smith are highlighted below.

1. Jesuit High School Chapel Use Permit and Design Review (Carmichael, CA; 2012)

Mr. Smith was hired to challenge the transportation analysis in an EIR prepared by Sacramento County for a modest expansion of a private catholic high school. Mr. Smith’s comments were submitted on behalf of the petitioner in the case – a neighbor who opposed the project because he did not agree with the school’s religious mission. (See Attachment 1 [Final Judgment, p. 2, fn. 2].)

In his comment letter, Mr. Smith disputed nearly every aspect of the traffic analysis. (See Attachment 2 [Mr. Smith’s comment letter].) Mr. Smith disputed the methodology used by the County and the results of the analysis. Among other claims, Mr. Smith argued (1) the baseline traffic counts were unrepresentative of existing conditions; (2) the assumptions in the traffic analysis were wrong; (3) the EIR’s queuing analysis was flawed; (4) the EIR overstated traffic impacts for the alternatives; (5) the EIR failed to adequately address traffic safety; and (6) the EIR failed to mitigate traffic impacts on neighbors.

The litigation focused solely on whether the EIR’s traffic analysis complied with CEQA. The petitioner pointed to Mr. Smith’s letter as evidence showing the traffic analysis was defective. The court upheld the EIR. (Attachment 1 [Final Judgment].)

2. Placer Vineyards Specific Plan (Placer County, CA; 2004)

Mr. Smith was hired to challenge the transportation analysis in an EIR prepared by Placer County for the Placer Vineyards Specific Plan, which set forth the rules and policies that would define future development at a site located in southwest Placer County.

In his comment letter, Mr. Smith disputed nearly every aspect of the traffic analysis. (See Attachment 3 [Mr. Smith’s comment letter].) Mr. Smith disputed the methodology used by the County and the results of the analysis. Among other claims, Mr. Smith argued (1) the EIR failed to analyze, disclose, or mitigate traffic impacts for certain peak periods; (2) the Level of Service (LOS) analysis understated traffic impacts; (3) the EIR failed to analyze impacts on freeway merge ramps, diverge and weaving sections; (4) the methodology used to analyze intersection traffic impacts was obsolete and failed to disclose impacts; (5) the methodology understated traffic impacts at certain intersections; (6) the study area for the transportation analysis was too narrow; (7) the EIR failed to adequately analyze changes to transportation-related goals and policies; (8) the analysis of traffic loads on area roadways was inadequate; (9) the EIR failed to



adequately analyze construction-related traffic impacts; (10) the EIR's traffic forecasts were erroneous; and (11) mitigation for traffic impacts was inadequate.

The EIR's transportation analysis was a central focus in the ensuing litigation. The petitioners cited repeatedly to Mr. Smith's letter to support their arguments. After reviewing the evidence in Mr. Smith's letters, the court determined that petitioners and their expert – Mr. Smith – failed to demonstrate that the methodology and analysis of transportation impacts was flawed. The court found that all of the petitioners' arguments related to the EIR's transportation analysis were unfounded and upheld the EIR. (See Attachment 4 [Court's Ruling, pp. 15-17].)

### 3. Higgins Marketplace Project (Nevada City, CA; 2007)

Mr. Smith was hired to challenge the transportation analysis in an EIR prepared by Nevada County for the Higgins Marketplace project located in Nevada County. The project included three retail buildings and anticipated future development of light industrial and office space.

In his comment letter, Mr. Smith disputed nearly every aspect of the traffic analysis. (See Attachment 5 [Mr. Smith's comment letter].) Mr. Smith disputed the methodology used by the County and the results of the analysis. Among other claims, Mr. Smith argued (1) the EIR relied on understated estimates of project traffic; (2) the EIR relied on unsupported assumptions; and (3) the EIR failed to adequately analyze queuing impacts.

The project opponents challenged the EIR in court and presented the same arguments raised in Mr. Smith's letter. The trial court did not find Mr. Smith's arguments persuasive and upheld the EIR. (Attachment 6 [Statement of Decision].)

The petitioner appealed the trial court's decision to the Third District Court of Appeal. Relying again on Mr. Smith's letter, the petitioner's argument focused on whether the EIR's traffic analysis improperly relied on uncertain future traffic improvements in order to conclude that the project's level of service (LOS) impacts would be less than significant. In a published opinion (*South County Citizens for Smart Growth v. County of Nevada* (2013) 221 Cal.App.4th 316), the court of appeal rejected the petitioner's claims. The court noted that although the petitioner "may be unhappy" with the assumptions in the EIR, it did not provide evidence that the EIR's analysis was inadequate. (*Id.* at pp. 336-338.) Therefore, notwithstanding Mr. Smith's letter, the court held that the EIR's traffic analysis complied with CEQA and upheld the EIR.

### 4. Costco Wholesale Project (Ukiah, CA; 2013)

Mr. Smith was hired to challenge the traffic analysis in an EIR prepared by the City of Ukiah for a new Costco store in the City.

In his comment letter, Mr. Smith disputed nearly every aspect of the traffic analysis. (See Attachment 7 [Mr. Smith's comment letter].) Mr. Smith disputed the methodology used by the



City and the results of the analysis. Among other allegations, Mr. Smith argued (1) the EIR relied on unrepresentative and outdated traffic counts; (2) the EIR's trip generation analysis was flawed; (3) the EIR made improper assumptions, including trip generation; (4) the EIR's analysis of traffic queues was flawed; (5) the EIR's mitigation for traffic impacts was inadequate; (6) the EIR's traffic analysis was too narrow; (7) the EIR failed to adequately analyze emergency access; (7) the EIR failed to adequately analyze impacts on bicyclists and pedestrians; and (8) the thresholds of significance were inadequate.

At trial, the petitioners relied on Mr. Smith's letter to support their arguments that the traffic analysis was defective. The court did not find Mr. Smith's comments persuasive, stating: "The record establishes that the City's expert prepared a comprehensive traffic study. A detailed traffic impacts analysis section was included in the EIR along with extensive responses to comments . . . . There is substantial evidence to support a finding that the traffic analysis was adequate and that the City Council was fully informed at the time they made their findings and decision." (See Attachment 8 [Court's Decision].) The court determined that the EIR's traffic analysis was adequate and upheld the EIR. The case is currently on appeal.

### **Philip King, Ph.D.**

At the request of the Alliance, Dr. King submitted two letters alleging the project will result in significant urban decay impacts in Oakland. As explained below, his credibility has been called into question by at least one court.

We have worked on a number of projects where the lead agency received comments from Dr. King alleging that the project will result in urban decay impacts. As noted in CEQA case law, urban decay is potentially relevant when the proposed project consists of a big-box retail store; the concern is that the discount retailer will force less efficient retailers out of business. Dr. King, however, appears to believe that all types of projects will result in urban decay, or is at least willing to advance such arguments on behalf of project opponents. Dr. King has submitted comments alleging urban decay impacts on behalf on project opponents for a wide array of projects, ranging from retail projects of various sizes to a fitness center located in suburban Roseville.

Although our firm has had numerous encounters with Dr. King, our experience with one project in particular – the Lifetime Fitness Center Project in Roseville – encapsulates our overall impression of Dr. King's credibility as a purported expert on urban decay.

The Lifetime Fitness Center Project is a 120,000 square-foot fitness facility located in Roseville, California. The City of Roseville prepared an EIR for the project in 2013. For several obvious reasons, chiefly the nature of the project – a fitness center – there was no plausible basis for assuming that the project might result in significant urban decay impacts, and therefore, an analysis of urban decay was not included in the Draft EIR. On the very night of the City Council hearing, well after the date on which the Final EIR had been published, a lawyer representing project opponents submitted a letter from Dr. King alleging that the project will result in



significant urban decay impacts. In response, the City Council chose to close the public hearing on the project, but to continue its deliberations until such time as City staff could review the late comments from Dr. King. Staff thereafter retained an economist – ALH Economics – to review Dr. King’s urban decay claims. As submitted to the City upon completion, the report prepared by the economist concluded that urban decay was *not* a reasonably anticipated consequence of the project and went on to assert that, based on his history in predicting urban decay for many other projects around California, Dr. King lacked credibility on the subject.

The ALH report concluded that Dr. King’s analysis was “based upon faulty and undocumented assumptions” and that his work was “sloppy and often unsubstantiated[.]” (See Attachment 9 [ALH Report, p. 23].) The report also explained:

Dr. King’s submission at the very end of a project’s administrative process of materials insisting that a CEQA document is inadequate and must be redone is not a one-time event, but rather is part of an established pattern of inaccurate doom and gloom urban decay predictions made repeatedly by him throughout California and beyond. . . . [I]t is common practice for Dr. King to submit an 11th hour claim that a project seeking EIR certification has an inadequate EIR due to an insufficient urban decay analysis. These claims are accompanied by memos similar to the one Dr. King submitted regarding Life Time Fitness . . . . Oftentimes there are math or other errors in Dr. King’s reports (such as referenced earlier by the Court of Appeal, Fifth Appellate District, State of California), but even more critically, his predictions regarding business closure and resulting urban decay are repeatedly proven to be inflammatory and wrong.

(See Attachment 9 [ALH Report, p. 24].)

The report includes detailed case studies analyzing Dr. King’s previous predictions of urban decay. The report concludes that, in each instance, Dr. King’s predictions proved to be wrong. The case studies involved Walmart stores and represented Walmart development over a span of time and throughout California, including Fairfield, Yuba City, and Gilroy. These cases were selected because they are instances where development Dr. King claimed would cause urban decay had been built and where ALH Economics had familiarity or conducted previous research following upon Dr. King’s predictions. In every case where Dr. King predicted urban decay would occur, the investigation showed that, contrary to Dr. King’s prediction, the Walmart stores had not caused urban decay. (See Attachment 9 [ALH Report, pp. 24-33].) Based on its review of the record, including the ALH Report, the City Council ultimately found that the contentions made by Dr. King were without merit. (See Attachment 10 [Roseville City Council Resolution 13-471].)

In the ensuing litigation, the petitioners relied on Dr. King’s letter to support their argument that the EIR failed to adequately analyze urban decay impacts. The court rejected the argument and upheld the EIR. Notably the court pointed to the report prepared by the City’s



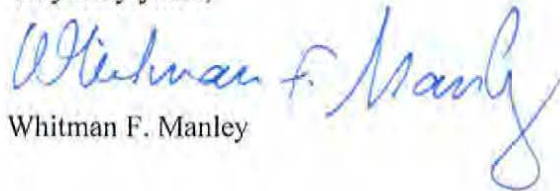
Mr. David J. Kelly, Esq.  
November 30, 2015  
Page 6

urban decay consultant and found it affirmed the City's determination that Dr. King's submitted documentation on urban decay lacked credibility. (See Attachment 11 [Judgment].)

\* \* \*

Please let us know if you have any questions regarding this information.

Very truly yours,

  
Whitman F. Manley

List of Attachments:

1. Final Judgment (*Adelberg v. County of Sacramento*, Sacramento County Superior Court, Case No. 34-2013-80001624)
2. Comment letter from Daniel Smith – Jesuit High School Chapel Use Permit and Design Review
3. Comment letter from Daniel Smith – Placer Vineyards Specific Plan
4. Ruling on Submitted Matter (*County of Sutter v. County of Placer*, Sacramento County Superior Court, Case No. 34-2007-00028334-CU-WM-GDS)
5. Comment letter from Daniel Smith – Higgins Marketplace Project
6. Statement of Decision (*South County Citizens for Smart Growth v. County of Nevada*, Nevada County Superior Court, Case No. 75402)
7. Comment letter from Daniel Smith – Costco Wholesale Project
8. Decision After Court Trial (*Ukiah Citizens for Safety First v. City of Ukiah*, Mendocino County Superior Court, Case No. 14-63579)
9. ALH Urban & Regional Economics – Response to Phillip King, Ph.D. Memo regarding Proposed Life Time Fitness Center in Roseville, CA
10. Roseville City Council Resolution 13-471
11. Final Judgment (*Committee for a Better Roseville v. City of Roseville*, Placer County Superior Court, Case No. SCV 34096)



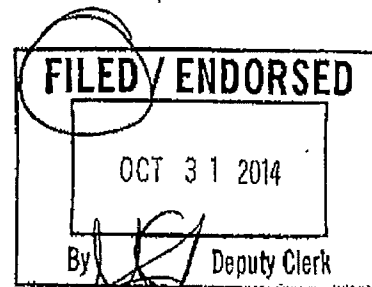
# Attachment 1



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11 Attorneys for Respondents  
12 COUNTY OF SACRAMENTO and  
13 SACRAMENTO COUNTY BOARD OF SUPERVISORS

14 *Counsel continued on next page*



EXEMPT FROM FILING FEES  
[GOVERNMENT CODE § 6103]

11  
12 SUPERIOR COURT OF THE STATE OF CALIFORNIA  
13 COUNTY OF SACRAMENTO

14 DR. MICHAEL G. ADELBURG,

15 Petitioner,

16 v.

17 COUNTY OF SACRAMENTO,  
18 SACRAMENTO COUNTY BOARD OF  
19 SUPERVISORS, and DOES 1 through 20,

20 Respondents and Defendants,

21  
22 JESUIT HIGH SCHOOL OF SACRAMENTO,  
23 and DOES 21 through 100,

24 Real Party in Interest.  
25  
26  
27  
28

CASE NO. 34-2013-80001624

~~PROPOSED~~ FINAL JUDGMENT  
DENYING PETITION FOR WRIT OF  
MANDATE

ASSIGNED FOR ALL PURPOSES:  
Hon. Allen Sumner  
Department: 42

Filing Date of Action:  
August 30, 2013

[PROPOSED] FINAL JUDGMENT DENYING PETITION FOR WRIT OF MANDATE



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[PROPOSED] FINAL JUDGMENT DENYING PETITION FOR WRIT OF MANDATE



1 On October 2, 2014, pursuant to a request of the court, Petitioner DR. MICHAEL G.  
2 ADELBERG, filed an Amended Notice of Hearing, setting the trial in this matter for October 17, 2014,  
3 at 10:30 am in Department 42 of the Sacramento Superior Court. On October 16, 2014, this Court  
4 issued a tentative ruling on the merits pursuant to Local Rule 1.06(A). A copy of the tentative ruling is  
5 attached here as Exhibit A. As indicated in Local Rule 1.06(B), the tentative ruling becomes the final  
6 ruling of the court unless a party requests a hearing before 4:00 p.m., the court day before the scheduled  
7 hearing. No party requested a hearing. Accordingly, the Court's tentative ruling is hereby the final  
8 ruling of the Court.

9 IT IS HEREBY ORDERED, ADJUDGED, AND DECREED as follows:

10 1. The Verified Petition for Writ of Mandate is denied in its entirety. The Court finds and  
11 rules that, with respect to the claims alleged by Petitioner, Respondents and Defendants COUNTY OF  
12 SACRAMENTO et al. complied with the California Environmental Quality Act (Pub. Resources Code,  
13 § 21000 et seq.). The basis for this ruling is set forth in the Court's final ruling in the matter, which is  
14 attached as Exhibit A to this judgment. Exhibit A is incorporated by reference in its entirety.

15 2. Final judgment shall be, and hereby is, entered in favor of Respondents and Defendants,  
16 and against Petitioner, on all claims set forth in the Petition.

17 3. Respondent is the prevailing party in this action and may recover its costs of suit from  
18 Petitioner by timely filing of a memorandum of costs. Petitioner retains the right to file a timely motion  
19 to strike or tax costs.

20  
21 IT IS SO ORDERED AND ADJUDGED.

22  
23 Dated: 10/31/2014

24  
25 The Honorable Allen Sumner  
26 Judge, Sacramento County Superior Court





1 APPROVED AS TO FORM;

2

3 Dated: October 21, 2014

4

LAW OFFICES OF DONALD B. MOONEY

5

By: 

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Telephone: (530) 758-2377

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DR. MICHAEL G. ADELBERG

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EXHIBIT A



## **EXHIBIT A**



**SUPERIOR COURT OF CALIFORNIA  
COUNTY OF SACRAMENTO**

<b>DATE/TIME</b>	<b>October 17, 2014, 10:30 a.m.</b>	<b>DEPT. NO</b>	<b>42</b>
<b>JUDGE</b>	<b>HON. ALLEN SUMNER</b>	<b>CLERK</b>	<b>M. GARCIA</b>
<b>DR. MICHAEL G. ADELBERG,</b>  Petitioner,  v.  <b>COUNTY OF SACRAMENTO, SACRAMENTO COUNTY BOARD OF SUPERVISORS, et al.,</b>  Respondents		<b>Case No.: 34-2012-80001624</b>	
<b>JESUIT HIGH SCHOOL OF SACRAMENTO,</b>  Real Party in Interest			
<b>Nature of Proceedings:</b>		<b>PETITION FOR WRIT OF MANDATE</b>	

Following is the court's tentative ruling denying the petition for writ of mandate scheduled for October 17, 2014, at 10:30 a.m., in Department 42.

In this mandamus action under the California Environmental Quality Act. ("CEQA"; Pub. Resources Code, § 21000 et seq.)<sup>1</sup> Petitioner Adelberg challenges the decision by Respondent County of Sacramento ("County") approving construction of a chapel and related infrastructure by real party in interest Jesuit High School. For the reasons discussed below, the petition is denied.

**INTRODUCTION**

Jesuit High School ("Jesuit") is a private Catholic boys' school located in a residential neighborhood in the County. It has operated at the same location for nearly 50 years. In 2008 Jesuit applied to the County for a permit to construct a chapel, parking lot, access drive and

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<sup>1</sup> Unless otherwise noted, all statutory references are to the Public Resources Code.



traffic signal adjacent to its campus (collectively the "project"). Thus began a five-year environmental review process leading to the County's approval of the project in July of 2013. (See generally Administrative Record ["AR"] 72-74.)

The project was opposed by Petitioner and other residents of Lantern Court, a small cul-de-sac backing up to the Jesuit High School campus. The residents of Lantern Court raised numerous complaints about the project, including land use, aesthetics, traffic, circulation and safety, air quality, noise, biological resources, hazards and hazardous materials, privacy, cumulative impacts, growth inducing impacts, greenhouse gas emissions and property values. (AR 507.) The number of complaints and complainers winnowed over the years.

Petitioner alone now brings this challenge. He opposed the project since its inception, but for differing reasons over time.<sup>2</sup> In this petition he challenges only the project's impact on traffic. More specifically, where a new traffic signal should be installed to provide access from the nearby main thoroughfare of Fair Oaks Boulevard to the school located in a residential neighborhood. The County explains:

[One] important purpose of the project is to provide safe, direct access to the campus from Fair Oaks Boulevard. (AR 200.) Under current operations, traffic from Fair Oaks Boulevard arriving on campus must snake through neighborhood streets to arrive at campus. (AR 237, 2257-2258, 2262.) Youthful drivers exiting the school parking lot must brave an unsignalized left-turn onto busy Fair Oaks Boulevard. (AR 2258.) The Project includes a new driveway directly connecting to Fair Oaks. (AR 200.) The access will be signalized for safe operations and will relieve surrounding residential streets, especially Gordan Lane, of school-related traffic and congestion that they have experience for years. (AR 134, 153, 432-424, 2279-2280.)

(Opposition 1:12-19.)

The new access drive and traffic signal on Fair Oaks Boulevard will be approximately 400 feet west of Lantern Court, where Petitioner lives. Petitioner argues the County failed to comply with CEQA because it relied on a flawed environmental impact report ("EIR"). (Pet. ¶

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<sup>2</sup> Some of his objections had little to do with any impact the project would have on the environment. For example: "Jesuit thinks they are erecting a statue of God. [¶] By contrast, I think their statue represents an extreme instance of persecution of one particular Jew, symbolizing more than 2000 years of Christian persecution of Jews, including every conceivable outrage from rape to wanton massive genocide." (AR 550.)



25.) Specifically, the EIR failed to adequately disclose, analyze or mitigate the project's impact on "traffic and circulation."<sup>3</sup> (Pet. ¶¶ 27.) Petitioner seeks a writ of mandate ordering the County to set aside its approval of the project and prepare a new EIR.<sup>4</sup>

The petition is denied.

## BACKGROUND

### Procedural History

The County initially concluded an EIR was not necessary because the project's environmental impacts could be reduced to a less than significant level through mitigation measures. (AR 1672.) Ultimately, however, the County decided to prepare a full EIR in hopes of avoiding litigation. (AR 629 and 2498.)

The County released a draft EIR on December 27, 2012. (AR 609-913.) The draft EIR included a detailed "Transportation Study." (AR 914-1170.) The County received six comment letters – including three from Petitioner and one from his traffic expert. (AR 507-580.) Petitioner's expert provided a lengthy critique of the Transportation Study, which now forms the bulk of Petitioner's opening brief.<sup>5</sup>

The County's final EIR, released in May 2013, responded thoroughly to all comments received on the draft EIR. (AR 113-608.) The County Planning Commission certified the final EIR and approved the project on June 10, 2013. (AR 103-113.)

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<sup>3</sup> The petition also mentions aesthetics and land use. (Pet. ¶ 27.) However, Petitioner's opening and reply briefs focus entirely on traffic and circulation. The court thus finds Petitioner has waived any argument based on aesthetic or land use impacts not briefed. (*Doe v. Lincoln Unified School Dist.* (2010) 188 Cal.App.4<sup>th</sup> 758, 767)

<sup>4</sup> Work on the project proceeded during the pendency of this action. It appears the chapel, parking lot and access drive are complete. The traffic signal has been installed, but is not operational. Notwithstanding completion of the chapel, the County does not argue Petitioner's challenge is now moot. (See *Woodward Park Homeowners v. Garreks* (2000) 77 Cal.App.4<sup>th</sup> 880; compare *Santa Monica Baykeeper v. City of Malibu* (2011) 193 Cal.App.4<sup>th</sup> 1538.)

<sup>5</sup> Indeed, much of the expert's critique is simply inserted verbatim into Petitioner's opening brief, with no explication or argument. (*Doe v. Lincoln Unified School Dist.*, *supra*, 188 Cal.App.4<sup>th</sup> at 767 [a brief should contain legal argument with citation of authorities on point. If none is furnished on a particular point, the court may treat it as waived and pass it without consideration].)



Petitioner appealed to the County Board of Supervisors. (AR 1397-99.) The Board denied his appeal and approved the project on July 30, 2013. (AR 71-102.) This petition followed.

#### Environmental Impact

The court notes at the outset what this case is *not* about. In approving the project, the County considered numerous potential impacts on: land use; drainage and water quality; public services; *traffic*; noise; air quality; aesthetics; biological resources; climate change; hazardous materials; and cultural resources. (See generally AR 82-102.) The County found eight significant, or potentially significant, environmental impacts, but concluded they could be mitigated to less than significant levels.<sup>6</sup> (AR 88-90, 92-101.) Petitioner does not challenge these findings.

The County found the project's remaining environmental impacts would be less than significant. The County made 36 such findings. Petitioner challenges only the County's finding the project would not result in any significant adverse impact to intersection operations or traffic safety. (AR 86, 87.)

Over the course of the five-year environmental review process, several changes were made to Jesuit's initial plans. As finally approved by the County, the project includes: (1) a use permit allowing Jesuit to construct a 10,500 square foot chapel, and develop related parking and site improvements, including *a new access drive on Fair Oaks Boulevard with a new traffic signal*; (2) a use permit to increase the maximum number of students from 1,000 to 1,100; (3) a use permit allowing the chapel to be used as a private social center, including weddings, baptisms and funerals; and (4) a design review to comply with the County's Commercial and Mixed Use Design Guidelines. (AR 1.) This petition challenges only the new access drive and traffic signal.

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<sup>6</sup> For example, the project would increase noise levels, which could be mitigated by installing a masonry sound wall. (AR 87-90.) The project would also remove some native trees, which could be mitigated by planting equivalent native trees. (AR 93.)



## EIR

The fundamental goal of the EIR is to inform the County and public of any significant adverse impact the Jesuit project is likely to have on the environment. (§ 21061; *Neighbors for Smart Rail v. Exposition Metro Line* (2013) 57 Cal.4<sup>th</sup> 439, 505.) The EIR compares what will happen if a project is built with what will happen if it is not. (See *Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal.App.4<sup>th</sup> 683, 707.) The EIR is also intended to “demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its actions.” (*Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 392.) If CEQA is followed, the public will know the basis on which the County approved the Jesuit project so the public can respond if it disagrees. (*Ibid.*)

### The Jesuit High School Project

The County’s CEQA Findings of Fact, final EIR and the Transportation Study describe the Jesuit project in detail, including possible impacts on traffic. (AR 71-102, 113-608, 914-1170.)

The project is located on the south side of Fair Oaks Boulevard, approximately half way between Gordon Lane and Lantern Court. The existing Jesuit High School campus is located immediately to the south and southeast. The new access drive and traffic signal are located on Fair Oaks Boulevard, directly across from Arden Hills Country Club Lane and approximately 440 feet west of Lantern Court. Petitioner lives on Lantern Court.

There are currently four ways to access the Jesuit High School campus by car: Gordon Lane, north Jacob Lane, south Jacob Lane and American River Drive.

Gordon Lane is a two-lane residential street off Fair Oaks Boulevard that extends south to Jesuit’s main parking lot. There is a stop sign on Gordon Lane where it intersects with Fair Oaks Boulevard. Students parking on campus generally use the Gordon Lane access.

Jacob Lane is a two-lane street that extends from Fair Oaks Boulevard to the American River Parkway. There is a traffic light at the intersection of Fair Oaks Boulevard and Jacob Lane. The main entrance to Jesuit High School is on Jacob Lane. This is the entrance to the designated drop-off and pick-up area, as well as limited faculty and visitor parking.

There is another access point further south on Jacob Lane used by campus residents.



The fourth access point is off of American River Drive on the south side of campus. This leads to athletic fields and is used primarily for after-school activities.

### Traffic Study

CEQA addresses projects that will have a "significant" impact on the environment. (See § 21002.) The CEQA Guidelines in turn encourage agencies such as the County to develop their own local "thresholds of significance."<sup>7</sup> Compliance with these thresholds will normally mean the project's effect on the environment will be deemed "less than significant." (Guidelines § 15064.7.)

Here the County's Traffic Impact Analysis Guidelines ("Traffic Guidelines") require a traffic study if the project will generate either 100 or more "peak hour" vehicles trips, or 1,000 or more total daily vehicle trips. Petitioner does not challenge these Traffic Guidelines.

The County concluded the increased enrollment from the project would lead to approximately 81 additional morning peak hour trips and 17 additional afternoon peak hour trips. (AR 228-229.) The County thus concluded the increased enrollment was not significant as defined by its Traffic Guidelines and therefore did not require a traffic study. (AR 228-29.) Petitioner does not challenge this conclusion.

The Traffic Guidelines also require a traffic study if the project will "substantially change the off-site transportation system or connections to it." (AR 935.) The County concluded a traffic study was required because of "potential modifications to traffic patterns on Fair Oaks Boulevard as a result of the project." (*Id.*) The traffic study was also required to evaluate whether the project's new signal-controlled access to the campus would have a significant effect on traffic operations at nearby intersections. (AR 230.)

The County's Traffic Guidelines measure traffic impact by "level of service." (AR 238-39.) The level of service measures the delay and congestion experienced by drivers using an intersection or roadway. The level of service is rated by a grade from A (free flowing traffic) to F (jammed conditions and extreme delay). (AR 231, 233.) The County designated the minimum acceptable level of service in the Jesuit project area as E ("very long" delays). (AR 233, 238.)

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<sup>7</sup> The CEQA Guidelines ("Guidelines") are regulations adopted to implement CEQA and are codified at California Code of Regulations, title 14, chapter 3, sections 15000-15387.



The County concluded the majority of people entering and exiting the campus use either Gordon Lane or the main entrance on Jacob Lane,<sup>8</sup> (AR 931.) Petitioner does not challenge this conclusion. The County also concluded the project would not affect traffic or circulation at the south Jacob Lane or American River Drive access points. (AR 939-943.) Petitioner does not challenge these conclusions either.

The County then analyzed how the Jesuit project would affect the level of service at seven intersections along Fair Oaks Boulevard: Mariemont Avenue, Gordon Lane (current access point), Carter Road, Arden Hills Country Club Lane (proposed new access point), Lantern Court (where Petitioner lives), Genessee Court, and Jacob Lane (current access point). (AR 918-20.) Petitioner does not challenge the choice of these intersections to gauge the project's impact on traffic.

Using the thresholds of significance defined by its Traffic Guidelines, the County concluded the project would not cause a significant impact on traffic at any of the seven intersections studied. (AR 86, 242-43.) Petitioner challenges this conclusion, arguing the EIR is insufficient to support the County's decision the proposed traffic signal on Fair Oaks Boulevard near Lantern Oaks will not have a significant impact.

#### STANDARD OF REVIEW

In evaluating Petitioner's CEQA challenge, the court reviews the administrative record to determine whether the County abused its discretion. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4<sup>th</sup> 412, 426.) Abuse of discretion can be established in two ways: (1) the County did not *proceed in the manner required by law*, or (2) the County's decision is not *supported by substantial evidence*. (*Id.*) The type of error alleged determines the standard of review the court will apply.

The court determines de novo, as a matter of law, whether the County proceeded in the manner required by law. (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.) In contrast, the court accords much greater deference to the County's factual

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<sup>8</sup> For example, in the morning 85 to 90 percent of all traffic entering the campus uses these two access points. (AR 931.) After school, 75 to 90 percent of traffic uses these two access points. In the evening (5 to 6 pm) 70 to 75 percent use these two access points. (*Id.*) Petitioner does not challenge these findings. At one point his expert complained these numbers were suspect (AR 526), but Petitioner did not pursue this in his briefing.



determinations, upholding the County's conclusions if supported by substantial evidence in the record. (*Vineyard Area Citizens, supra*, 40 Cal.4<sup>th</sup> at 435; *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4<sup>th</sup> 260, 275.) Substantial evidence "means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." (Guidelines § 15384.) It includes facts, reasonable assumptions predicated upon facts and expert opinion supported by facts. (*Id.*)

The substantial evidence standard is "highly deferential." (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4<sup>th</sup> 957, 984.) The court must indulge all reasonable inferences that would support the County's determinations and resolve all conflicts in the evidence in favor of the County's decision. (*Id.*) The court must also resolve reasonable doubts in favor of the County's finding and decision. (*Laurel Heights Improvement Assn. of San Francisco v. Regents of the University of California, supra*, 47 Cal.3d at 393.) The court may not set aside the County's approval of the EIR simply because an opposite conclusion would have been equally reasonable. (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.) "A court's task is not to weigh conflicting evidence and determine who has the better argument. These questions are left to the discretion of the agency and its environmental consultants; it is they who decide how best to prepare an EIR to achieve CEQA's informational purpose." (*San Diego Citizenry Group v. County of San Diego* (2013) 219 Cal.App.4<sup>th</sup> 1, 12.)

#### REVIEW OF THE EIR

The EIR is the "heart" of CEQA. (*Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4<sup>th</sup> 1036, 1045.)

The purpose of an [EIR] is to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project. [Citation.] An EIR should be prepared with a sufficient degree of analysis to provide decisionmakers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the



sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. ... The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure of service.

(*Id.* [internal quotes omitted].)

Determining if the County's EIR is adequate is "essentially pragmatic." (*Berkeley Keep Jets Over the Bay Com. v. Board of Port Comrs.* (2001) 91 Cal.App.4th 1344, 1356.) Preparing an EIR requires exercise of judgment.

The court does not pass on the "correctness" of the EIR's conclusions, but only upon the EIR's "sufficiency as an informative document." (*Laurel Heights Improvement Assn' v. Regents of the University of California, supra*, 47 Cal.3d at 392.) Thus the court will not set aside the County's approval of its EIR simply because an opposite conclusion would have been equally reasonable. The court's task is not to weigh conflicting evidence regarding the project's impact on traffic and determine who has the better argument. (*Ibid.*)

The court may not substitute its judgment, but instead is limited to ensuring the County considered the environmental consequences of its action. (*Berkeley Keep Jets Over the Bay Com. v. Board of Port Comrs., supra*, 91 Cal.App.4th at 1356) The County's EIR must be upheld if it "reasonably sets forth sufficient information to foster informed public participation and to enable the decision makers to consider the environmental factors necessary to make a reasoned decision." (*Id.*)

The court has reviewed the County's EIR; it satisfies these requirements.

Petitioner has the burden of showing the County's EIR is legally inadequate. (*Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 117.) Petitioner fails to meet this burden.

Again, the EIR identifies the project's *significant* impacts on the environment, identifies alternatives to the project and indicates how significant impacts can be mitigated or avoided. (§ 21002, 21002.1.) A significant impact on the environment "means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." (Guidelines § 15382.) The County may determine an environmental impact is not significant if it concludes the impact is not a substantial or potentially substantial adverse change to the environment. (Guidelines § 15382; *North Coast Rivers Alliance v. Martin*



*Municipal Water District* (2013) 216 Cal.App.4<sup>th</sup> 614, 624.) The County's conclusion a particular effect of the project will not be significant is an abuse of discretion if that conclusion is not supported by substantial evidence in the administrative record. (*Protect the Historic Amador Waterways, supra*, 116 Cal.App.4<sup>th</sup> at 1113.)

The EIR does not have to provide a detailed analysis supporting the County's conclusion the Jesuit project will not have a significant impact on traffic. (See *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4<sup>th</sup> 1099, 1112-13.) Instead, the EIR need only contain a "brief statement addressing the reasons for that conclusion." (*North Coast Rivers Alliance, supra*, 216 Cal.App.4<sup>th</sup> at 625; § 15128.)

#### ANALYSIS

Petitioner argues the County's EIR (and Transportation Study upon which the EIR is based) is legally inadequate for four reasons: (1) it fails to properly analyze traffic impacts to nearby streets; (2) it contains assumptions biased against the project's alternatives; (3) its "queuing analysis" is flawed; and (4) it ignores substantial evidence the project will impact traffic.

Petitioner's arguments are not easy to understand. This is due in part because much of Petitioner's brief simply repeats his expert's comments verbatim, without explanation or analysis. Additionally, it is not always clear whether Petitioner contends the flaws he alleges in the EIR constitute a failure by the County to proceed in the manner required by law as opposed to a failure of evidence supporting the County's decision.

Again, the court accords deference to the County's factual findings and conclusions. It thus appears Petitioner seeks to argue that, in failing to include certain information in the EIR, the County *failed to proceed in the manner required by law*. Failure to proceed in the manner required by law is a legal question the court would review de novo. However, a failure to include information in the EIR will not rise to a failure to proceed in the manner required by law unless the EIR's analysis is "clearly inadequate or unsupported." (*Citizens for a Sustainable Treasure Island, supra*, 227 Cal.App.4<sup>th</sup> at 1046.) Certainly the County would abuse its discretion if it failed to include information in the EIR so as to "preclude informed decision making and informed public participation, thereby thwarting the statutory goals of the EIR



process.” (*Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 925.)

Here the difference between the two standards of review is of little importance. Petitioner’s challenge fails under either test because the County’s EIR provided sufficient information to identify and assess the project’s potential impact on traffic.

**1. The EIR properly analyzed impacts to nearby streets**

Petitioner first asserts (1) the project will shift traffic from the Gordon Lane and Jacob Lane entrances to the school to a “more dangerous” location on Fair Oaks Boulevard; and (2) there is inadequate space at the new entrance to accommodate queuing. (Opening at 11:2-4.) He supports these assertions by three citations to the administrative record: pages 1594, 1443, and 5337. None persuades.

- Page 1594 was not included in the administrative record provided to the court and thus provides no support.
- Page 1443 is a letter Petitioner wrote the County Planning Commission in 2013 stating the proposed location for the new access drive and signal is “terrible,” suggesting the County consider Gordon Lane as an alternative. It did.
- Page 5337 is a 2011 letter to the Planning Commission by residents of Lantern Court, including Petitioner, stating the proposed entrance is unsafe because it is at the crest of a hill with poor visibility, and the new signal will cause queue lengths of 400 to 500 feet.<sup>9</sup>

The latter two citations do not establish the project will shift traffic to a more dangerous location or will cause excessive queue lengths.

Petitioner argues: “In response to comments, the County asserts that it is not an assumption, but what occurs at the campus and what makes sense. (AR 464-65.)” (Opening 11:5-6.) But Petitioner provides no explanation what comments or assumptions he refers to, or why these make the EIR inadequate.

Petitioner cites pages 464 and 465 of the administrative record. This is of little help. It is a portion of the County’s response to comments from Petitioner’s expert on the inadequacy of the Transportation Study. The comments of Petitioner’s expert run for almost four single-spaced

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<sup>9</sup> This letter was written approximately one year before the Transportation Study.



pages; the County's response is almost three single-spaced pages. (AR 460-66.) Petitioner does not identify what specific portion he considers applicable. (See *Bernard v. Hartford Fire Ins. Co.* (1991) 226 Cal.App.3d 1203, 1205 [party must provide page citations to record]; Cal. Rule Court, rule 3.1113, subd. (k) [party must reference specific page and, if applicable, paragraph or line number].)

Petitioner also cites pages 1461, 2663 and 2672 of the administrative record. Pages 1461 and 2663 contain one paragraph of the reply from Petitioner's expert to the County's response to comment 3.3. Page 2672 contains a portion of the County's comment on the expert's reply. Petitioner's expert focuses on two criticisms of the Transportation Study: (1) it assumes a large percentage of current traffic approaches the school from the west on Fair Oaks Boulevard, and (2) a large number of those approaching from the west bypass the Gordon Lane access and continue on to the Jacob Lane access. Petitioner's expert maintains both assumptions are "highly questionable." (AR 1461.)

In determining if the County's determination is supported by substantial evidence, the court may consider "reasonable assumptions predicated on facts and expert opinion supported by facts." (*Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 777.) If Petitioner is trying to argue the County's assumption is unreasonable, and thus cannot constitute substantial evidence, the court is not persuaded.

The County assumes a significant portion of current school traffic using Fair Oaks Boulevard approaches the school from the west. (AR 465.) This assumption is based on the following facts:

- Many of the area's jobs are located to the west in downtown Sacramento, suggesting many working parents who drop off their children continue on to jobs located to the west. When those same parents pick up their children, they would approach from the west.
- The closest access to Jesuit from a freeway is to the west at Watt Avenue and Highway 50. Thus, anyone using Highway 50 would likely approach Jesuit from the west.
- Student zip code data suggests approximately 70 percent of students live in areas where the shortest travel path to Jesuit would access the school from the west on Fair Oaks Boulevard.



(AR 465.)

The court finds the County's assumptions are reasonable and supported by substantial evidence. The fact Petitioner's expert disagrees does not demonstrate the County abused its discretion.

Petitioner appears to fault the County for not including the zip codes of all Jesuit students in either the Transportation Study or the EIR. Petitioner cites no authority requiring the County to include such information. Again, the EIR is an "informational document which provides detailed information to the public and to responsible officials about significant environmental effects of a proposed project." (*Defend The Bay v. City of Irvine* (2004) 119 Cal.App.4th 1261, 1265.) The court must uphold the County's EIR if there is substantial evidence in the record supporting the County's decision the EIR is adequate and complies with CEQA. CEQA requires only "a good faith effort at full disclosure; it does not mandate perfection." (*Id.*) Accordingly, the failure to include student zip codes in the EIR does not render it insufficient.

The County also assumes a significant number of drivers approaching the school from the west bypass Gordon Lane and continue on to the main entrance on Jacob Lane. (AR 464-65.)

This assumption is based on the following facts:

- Jacob Lane has a traffic signal. This makes it easier to turn onto Jacob Lane from Fair Oaks Boulevard, and easier to get back onto Fair Oaks Boulevard from Jacob Lane.
- In contrast, Gordon Lane only has a stop sign. This makes it more difficult to turn onto Gordon Lane from Fair Oaks Boulevard, and more difficult to get back onto Fair Oaks Boulevard from Gordon Lane.
- The Transportation Study shows an average delay of 271 seconds (4 ½ minutes) to make a left turn from Gordon Lane onto Fair Oaks Boulevard, but only 48 seconds to make a left hand turn from Jacob Lane onto Fair Oaks Boulevard. It is thus much quicker to get back onto Fair Oaks Boulevard from Jacob Lane than from Gordon Lane.
- The main entrance on Jacob Lane is the school's designated area to drop-off and pick-up students. It is reasonable to assume parents dropping off and picking up their children use the area designated for that purpose.

(AR 464-65.)



Again, the court finds the County's assumption reasonable and supported by substantial evidence in the record.

## 2. Bias

Petitioner argues the County's Transportation Study is biased against the alternatives Petitioner urges. The court is not persuaded.

CEQA requires the County to analyze the environmental impacts of both the project and reasonable alternatives to it. (§ 21002.1; *Mira Mar Community v. City of Oceanside* (2004) 119 Cal.App.4<sup>th</sup> 477, 487 [public agencies must consider, and EIR must identify, feasible alternatives that could substantially lessen any significant environmental impacts of a project].) The CEQA Guidelines provide: "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." (Guidelines § 15126.6, subd. (a).)

The County's decision as to which alternatives to study will be upheld as long as there is a reasonable basis. (*City of Maywood v. Level of Service Angeles Unified School Dist.* (2012) 208 Cal.App.4<sup>th</sup> 362, 414.) Petitioner must demonstrate the alternatives the County considered are manifestly unreasonable and do not contribute to a reasonable range of alternatives. (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4<sup>th</sup> 957, 988.)

The County considered four alternatives to the project:

- (1) Leaving the site as is;
- (2) Gordon Lane access alternative (same as the project but instead of a new signalized access across from Arden Hills Country Club, a traffic signal would be installed at the Gordon Lane/Fair Oaks Boulevard intersection);
- (3) Gordon Lane access alternative with the chapel relocated to the west of the proposed site);<sup>10</sup> and
- (4) Constructing 17 single-family residences on the site, with access via a new roadway connecting to Fair Oaks Boulevard.<sup>11</sup> (AR 154.)

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<sup>10</sup> As analyzed by the traffic study, the two Gordon Lane access alternatives would have an identical impact on traffic. Petitioner does not suggest otherwise.



Petitioner does not directly challenge the County's selection of these alternatives. Instead, he argues the Transportation Study was "biased" against these alternatives and in favor of the project.<sup>12</sup>

This argument fails aborning. The County determined the project will not have a significant impact on traffic. The County was thus not required to consider whether alternatives might have less impact. (See *Laurel Hills Homeowners Assn. v. City County* (1978) 83 Cal.App.3d 515, 521 [if significant impacts can be avoided "there is no need to resort to a consideration of the feasibility of environmentally superior alternatives identified in the environmental impact report"].) As our Supreme Court explains: "... CEQA does not mandate the choice of the environmentally best feasible project if through the imposition of feasible mitigation measures alone the appropriate public agency has reduced environmental damage from a project to an acceptable level." (*Id.*; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 731.)

The fact alternatives would have even less impact does not make the County's decision to proceed with the project an abuse of discretion.

Petitioner's specific challenges to the County's analysis of the alternatives also fail to show the County abused its discretion.

**a. The Gordon Lane approach**

Petitioner argues the Transportation Study erroneously assumed the Gordon Lane approach to Fair Oaks Boulevard is a single-lane approach. He maintains it is actually a two-lane approach: the right lane is used for right turns, and the left lane for left turns. Petitioner

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<sup>11</sup> This alternative would meet none of the project's objectives. (*Watsonville Pilots Assn. v. City of Watsonville* (2010) 183 Cal.App.4<sup>th</sup> 1059, 1089 [purpose of EIR is not to identify alternatives that meet few if any of the project's objectives].) However, Petitioner does not argue the alternative is improper.

<sup>12</sup> For example, the Transportation Study concluded the project would improve the level of service during the peak morning hour at each of seven intersections studied. (AR 932 to 945.) Based on the County's Traffic Guidelines, the project would cause no significant impact on traffic. In contrast, the two Gordon Lane access alternatives would improve the level of service at five intersections, but traffic would be worse at two intersections.

From this Petitioner argues the Transportation Study is biased in favor of the project and against the alternatives. The court does not find this establishes any "bias" by the County.



raised this complaint with the County. The County responded its Transportation Study assumed a two-lane approach. (AR 469.)

Petitioner argues the County's response is not supported by substantial evidence, explaining: "[T]he sub-appendices to the Appendix A of the Draft EIR that contain the computation sheets were not included in the Appendix A or the administrative record." (Opening at 12:24-25.)

Here, again, the court is unclear what documents Petitioner maintains are missing from the administrative record. It appears Petitioner claims the missing documents consist of (1) sub-appendices to (2) Appendix A to (3) the Draft EIR. According to the index to the administrative record, Appendix A to the Draft EIR is the Transportation Study. The Transportation Study, in turn, contains four appendices (A, B, C, and D). (AR 974-1170.) . (See Guideline § 15148 [EIR should cite documents used in preparation but need not include them in EIR]; *Ebbetts Pass Forest Watch v. California Dept. of Forestry & Fire Protection* (2008) 43 Cal.4<sup>th</sup> 936, 958 [nothing in CEQA requires source materials available to public to be physically incorporated into official response to comments].)

If Petitioner is asserting the sub-appendices were omitted from the administrative record, this is incorrect. Obviously, they were not.

To the extent Petitioner complains the County referred generally to "sub-appendices" rather than citing page numbers, the court finds this is sufficient. (See *El Morro Community Assn. v. California Dept. of Parks & Recreation* (2004) 122 Cal.App.4<sup>th</sup> 1341, 1354 ["the Department could have included more detail about the titles of the technical reports. But we simply cannot say the DEIR failed to advise the public about the existence of this technical information or that the lack of specific titles constitutes a failure to comply with CEQA's procedural requirements."].)

Petitioner's argument fails to demonstrate bias by the County.

**b. Gordon Lane as a drop off point**

Petitioner argues the EIR is biased against the Gordon Lane alternatives because it assumes "a large percentage of the drop-off traffic approaching from the west along Fair Oaks Boulevard bypasses the potential drop-off point accessed via Gordon Lane in the existing condition to make the drop-offs at the more distance Jacob Lane but assumes that 90 percent of



these would use the westerly drop-off point [i.e., the new access point] in the Existing plus Project condition. (AR 736-740.)" (Opening at 13:1-6.) Once again the pages cited do not support this allegation.<sup>13</sup>

Petitioner then states the "EIR's traffic analysis . . . subjectively and unreasonably assumes that only 50 percent of this drop-off traffic would use the westerly drop-off point in the case of the Chapel Project Gordon Lane Access Alternatives. (AR 677-679.)" Again, the cited pages are not on point.<sup>14</sup>

Petitioner finally cites page 536, a letter by Petitioner's expert commenting on the draft EIR. Petitioner's expert believes people approaching the school from the west bypass Gordon Lane to use Jacob Lane which has a traffic light, making it easier to get back onto Fair Oaks Boulevard. He thus believes whether a traffic light is installed at Gordon Lane or the proposed site near Lantern Court, the same amount of traffic will shift to the earlier, lighted access. As a result, "the amount of drop-off traffic from the west shifted from the Jacob Lane facility to the westerly drop-off should be assumed equal under the Proposed Project and the Chapel Project Gordon lane Access Alternatives."

The County's analysis assumes more people will use the project's new access point rather than a signal at Gordon Lane for two reasons. First, total trip length using the project's new access is slightly shorter than total trip length using the Gordon Lane access. (AR 470.) Second, Gordon Lane is slower because it has speed bumps. (AR 471.) Again, the County's assumption is supported by the record and not unreasonable.

**c. Level of Service at Arden Hills Country Club Lane**

Petitioner argues the EIR "unfairly" attributes an unsatisfactory level of service at the Arden Hills Country Club Lane/Fair Oaks Boulevard intersection because the Country Club closes a gate at one of its entrances. (Opening, 13:24-26.) Petitioner believes this will force people leaving the Club to exit via Fair Oaks Boulevard. Petitioner faults the County for failing to evaluate an alternative that would assume the Club would open its gate to improve the level of service at the intersection. Petitioner cites no authority requiring the County to consider such a hypothetical alternative.

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<sup>13</sup> They deal primarily with level of service and queue length.

<sup>14</sup> These deal primarily with level of service and queue length.



**d. Pedestrian improvements**

Petitioner complains the EIR "unreasonably" assumes the project will provide more pedestrian improvements than would either of the Gordon Lane access alternatives. Petitioner's expert believes it would be safer and "more pleasant" for pedestrians to get off busy Fair Oaks Boulevard at Gordon Lane than at the new intersection. But the County is not required to accept the conclusion of Petitioner's expert that Gordon Lane would be a safer and "more pleasant" place to put the new traffic signal. (*Browning-Ferris Indus. V. City Council* (1986) 181 Cal.App.3d 852, 863.) The County noted there are no sidewalks on Gordon Lane or along Fair Oaks Boulevard adjacent to Gordon Lane. (AR 473.) Again the County's response is reasonable and sufficient.

**e. The housing alternative**

Petitioner complains the EIR is biased against the housing alternative, largely based on arguments discussed above. Petitioner also faults the County for assuming it would not install a traffic signal at Gordon Lane under the housing alternative. The County responds the Gordon Lane intersection is not listed on its current Transportation Improvement and Program Guide. (AR 474.) Again, the County's response is reasonable and sufficient.

**3. The queuing analysis is adequate**

Petitioner argues the Transportation Study's "queuing analysis" contains two flaws rendering it "legally inadequate."

As discussed above, the County found the project would not significantly decrease the level of service at the seven intersections studied. The project thus would not have a significant impact on traffic as defined by the County's Traffic Guidelines. The County's expert nonetheless also conducted a "queue length analysis" of whether a line of cars stopped at the traffic signal would be so long as to block other intersections. (AR 243-44.) The queue length analysis showed the project would not cause queues to extend to the nearest intersections to the east (i.e., Lantern Court) or west (Carter Road). (AR 947.) In other words, cars stopped at the new traffic signal or Jacobs Lane would generally not extend down Fair Oaks Boulevard to either Lantern Court or Carter Road.



Petitioner argues this analysis is flawed. First because it “ignores fundamental engineering principles.” (Opening at 16:25-27.) But it is unclear what fundamental principles the County failed to consider.<sup>15</sup> Petitioner’s second alleged flaw is the queuing analysis relies on a theoretical traffic model rather than measurements of actual queue length.<sup>16</sup>

Neither argument persuades. The County’s Traffic Guidelines define significant traffic impacts in terms of decreased level of service – not queue length. The County nevertheless considered queue length.

The issue is not whether the County’s queuing analysis is irrefutable or could have been better. The relevant issue is only whether the studies are sufficiently credible to be considered as part of the total evidence that supports the agency’s decision. (See e.g., *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal. App. 4th 1437, 1467-68.) The County’s queue analysis meets this test, particularly where it was used to *supplement* the County’s other findings the project would not cause a significant impact on level of service. Additionally, the County included the criticisms of Petitioner’s expert in the final EIR, thereby alerting decision makers to the differing opinions. (*Id.* at 1468.) Far from misleading the public and decision makers, the County went beyond what was required by its own Guidelines.

**4. The county did not ignore substantial evidence the project will impact transportation**

Petitioner’s final argument is the County ignored substantial evidence the project will impact traffic on Fair Oaks Boulevard. Specifically, a “sight distance survey” conducted at the intersection to determine if the project would have a significant impact on safety. (AR 948.)

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<sup>15</sup> Petitioner asserts a “significant impact” occurs when the 95<sup>th</sup> percentile queue in a turn lane approaches an intersection exceeds the storage length in that lane, thereby blocking traffic flow in the approach to the intersection. (Opening 16:25-27.) But the County’s queuing analysis did not ignore this principle. Indeed, the County’s analysis is based on 95<sup>th</sup> percentile queue lengths. (AR 947.)

<sup>16</sup> Petitioner argues this is flawed because on one weekday evening his expert observed queues extending back to Lantern Court. (AR 534.) Petitioner maintains his expert’s observations undermine the validity of the County’s queue length study. It does not.



The sight distance survey assessed whether the new access point on Fair Oaks Boulevard near Lantern Court would meet the visibility standards of Caltrans' Highway Design Manual.<sup>17</sup> (AR 948.) Would a driver turning onto Fair Oaks Boulevard have adequate visibility to complete the turn? The County's expert concluded the proposed access point met the sight distance requirement in both directions. (*Id.*; AR 245-46.) The County thus concluded the project would not adversely impact traffic safety. (AR 139.)

Petitioner contends the County ignored substantial evidence demonstrating the sight distance survey was flawed. Specifically, a letter from residents of Lantern Court stating (1) most drivers on Fair Oaks Boulevard exceed the speed limit and (2) the proposed new access point is at crest of a hill poor visibility. (AR 509.) The County did not ignore this evidence. Indeed, it spent over 30 pages in the EIR addressing every point raised in the residents' letter. (AR 417-51.)

Petitioner complains the County accepted the sight distance survey notwithstanding the residents' comments. But the sight distance survey was based on visibility standards set by Caltrans. Petitioner does not challenge the Caltrans standards. Indeed, Petitioner does not suggest the new intersection fails to meet the Caltrans standards.

Again, the County's reliance on Caltrans' visibility standards is substantial evidence supporting the County's conclusion the project would not have a significant impact on safety.

### CONCLUSION

CEQA encourages public review and comment, and is often enforced by neighbors concerned a development will impact their immediate environment. But the CEQA review is to prevent significant, adverse impacts on the environment in general – not the environment of particular persons. (*Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4<sup>th</sup> 477, 492; *Friends of Davis v. City of Davis* (2000) 83 Cal.App.4<sup>th</sup> 1004, 1019.) As one court explained, "... all government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons, but whether [the project] will adversely affect persons in general." (*Topanga Beach Renters Assn. v. Dept. of General Services* (1976) 58 Cal.App.3d 188, 195.) The CEQA review is not intended to

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<sup>17</sup> Although not defined by either party, it appears "sight distance" refers to how much of Fair Oaks Boulevard is visible to a driver from the intersection.



simply "generate paper," but to compel government at all levels to make decisions with environmental consequences in mind. (*Laurel Heights Improvement Assn. v. Regents of University of California, supra*, 47 Cal.3d at 393.) The County did that here.

The County initially concluded all environmental impacts of the Jesuit High School project could be mitigated to less than significant levels. Therefore, no EIR was necessary. Petitioner disagreed. Hoping to avoid the cost of litigation, the County then prepared a full BIR. This took almost two years of studies, draft EIR's, public comment, responses by the County and preparation of a 500-page EIR. The administrative record of these proceedings exceeds 7,000 pages. In the end, the County once again concluded all of the project's environmental impacts could be mitigated to less than significant levels. The County made over 40 specific findings. Petitioner here challenges a few related to traffic.

Petitioner objects the Jesuit High School project may increase traffic on his street. It might. But that does not mean the County abused its discretion or violated CEQA in approving the project.

For the reasons discussed above, those challenges fail. The County proceeded in the manner required by law and its findings are supported by substantial evidence in the record. According, the petition for writ of mandate is denied.

The tentative ruling shall become the court's final ruling and statement of decision unless a party wishing to be heard so advises the clerk of this department no later than 4:00 p.m. on the court day preceding the hearing, and further advises the clerk that such party has notified the other side of its intention to appear. In the event this tentative ruling becomes the final ruling of the court, counsel for the prevailing party is directed to prepare a formal judgment, incorporating this ruling as an exhibit; submit it to opposing counsel for approval as to form; and thereafter submit it to the court for signature and entry of judgment in accordance with Rule of Court 3.1312.

The court prefers that any party intending to participate at the hearing be present in court. Any party who wishes to appear by telephone must contact the court clerk by 4:00 p.m. the court day before the hearing. (See Cal. Rule Court, rule 3.670; Sac. County Superior Court Local Rule 2.04.)



In the event that a hearing is requested, oral argument shall be limited to no more than thirty (30) minutes per side.

If a hearing is requested, any party desiring an official record of the proceeding shall make arrangement for reporting services with the clerk of the department not later than 4:30 p.m. on the day before the hearing. The fee is \$30.00 for civil proceedings lasting under one hour, and \$239.00 per half day of proceedings lasting more than one hour. (Local Rule 9.06(B) and Gov't. Code § 68086.) Payment is due at the time of the hearing.



1 *Dr. Michael G. Adelberg v. County of Sacramento, et al.*  
2 Sacramento County Superior Court Case No. 34-2013-80001624

3  
4 **PROOF OF SERVICE**

5 I, Bonnie Thorne, am a citizen of the United States, employed in the City and County of  
6 Sacramento. My business address is 555 Capitol Mall, Suite 800, Sacramento, California 95814 and  
email address is bthorne@rmmenvirolaw.com. I am over the age of 18 years and not a party to the  
above-entitled action.

7 I am familiar with Remy Moose Manley, LLP's practice whereby the mail is sealed, given the  
8 appropriate postage and placed in a designated mail collection area. Each day's mail is collected and  
deposited in a U.S. mailbox after the close of each day's business.


9 On October 27, 2014, I served the following:

10  
11 **[PROPOSED] FINAL JUDGMENT**  
**DENYING PETITION FOR WRIT OF MANDATE**

- 12 ☒ On the parties in this action by causing a true copy thereof to be placed in a sealed envelope  
13 with postage thereon fully prepaid in the designated area for outgoing mail addressed as  
14 follows; or
- 15 ☐ On the parties in this action by causing a true copy thereof to be delivered via Federal Express  
to the following person(s) or their representative at the address(es) listed below; or
- 16 ☐ On the parties in this action by causing a true copy thereof to be electronically delivered via the  
17 internet to the following person(s) or representative at the email address(es) listed below:

18 **SEE ATTACHED SERVICE LIST**

19  
20 I declare under penalty of perjury that the foregoing is true and correct and that this Proof of  
21 Service was executed this 27<sup>th</sup> day of October 2014, at Sacramento, California.

22 

23 Bonnie Thorne



1 *Dr. Michael G. Adelberg v. County of Sacramento, et al.*  
2 Sacramento County Superior Court Case No. 34-2013-80001624

3  
4 **SERVICE LIST**

5 Donald B. Mooney Attorneys for Petitioner  
6 LAW OFFICE OF DONALD B. MOONEY *Dr. Michael Adelberg*  
7 129 C Street, Suite 2  
8 Davis, CA 95616 **VIA U.S. MAIL**  
9 Tel.: (530) 758-2377  
10 Fax: (530) 758-7169  
11 Email: [dbmooney@dcn.org](mailto:dbmooney@dcn.org)

12 John F. Whisenhunt, County Counsel Attorneys for Respondents  
13 Krista Whitman, Assistant County Counsel *County of Sacramento and Sacramento County*  
14 OFFICE OF THE COUNTY COUNSEL *Board of Supervisors*  
15 700 H Street, Suite 2650  
16 Sacramento, CA 95814 **VIA U.S. MAIL**  
17 Tel.: (916) 874-5100  
18 Fax: (916) 874-8207  
19 Email: [whitmank@saccounty.net](mailto:whitmank@saccounty.net)



1 *Dr. Michael G. Adelberg v. County of Sacramento, et al.*  
2 Sacramento County Superior Court Case No. 34-2013-80001624

3  
4 **PROOF OF SERVICE**

5 I, Bonnie Thorne, am a citizen of the United States, employed in the City and County of  
6 Sacramento. My business address is 555 Capitol Mall, Suite 800, Sacramento, California 95814 and  
7 email address is bthorne@rmmenvirolaw.com. I am over the age of 18 years and not a party to the  
8 above-entitled action.

9 I am familiar with Remy Moose Manley, LLP's practice whereby the mail is sealed, given the  
10 appropriate postage and placed in a designated mail collection area. Each day's mail is collected and  
11 deposited in a U.S. mailbox after the close of each day's business.

12 On November 17, 2014, I served the following:

13 **NOTICE OF ENTRY OF FINAL JUDGMENT**

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15 with postage thereon fully prepaid in the designated area for outgoing mail addressed as  
16 follows; or
- 17 ☐ On the parties in this action by causing a true copy thereof to be delivered via Federal Express  
18 to the following person(s) or their representative at the address(es) listed below; or
- 19 ☐ On the parties in this action by causing a true copy thereof to be electronically delivered via the  
20 internet to the following person(s) or representative at the email address(es) listed below:

21 **SEE ATTACHED SERVICE LIST**

22 I declare under penalty of perjury that the foregoing is true and correct and that this Proof of  
23 Service was executed this 17<sup>th</sup> day of November 2014, at Sacramento, California.

24 

25  
26  
27  
28  
Bonnie Thorne



1 *Dr. Michael G. Adelberg v. County of Sacramento, et al.*  
2 Sacramento County Superior Court Case No. 34-2013-80001624

3  
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Attorneys for Petitioner  
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Attorneys for Respondents  
*County of Sacramento and Sacramento County  
Board of Supervisors*

VIA U.S. MAIL



## Attachment 2



Letter # 3



SMITH ENGINEERING & MANAGEMENT

March 29, 2013

Mr. Don Mooney  
Law Office of Donald B. Mooney  
129 C Street, Suite 2  
Davis, CA 95616

**Subject:** Jesuit High School Expansion Project Chapel Use Permit and  
Design Review Project (SCN 2011082080)

Dear Mr. Mooney:

Per your request, I have reviewed the Draft Environmental Impact Report ("the DEIR") on the Jesuit High School Chapel Use Permit and Design Review Project ("the Project") in Sacramento County and the Appendix A Transportation Study prepared in support of the DEIR.

My qualifications to perform this review include registration as a Civil and Traffic Engineer in California and over 40 years professional consulting engineering practice in the traffic and parking field. I have both prepared and reviewed the traffic and parking sections of environmental review documents, including studies of high school campuses. I am familiar with the surroundings of the proposed Project and previously commented on the November 24, 2010 Initial Study/Mitigated Negative Declaration Jesuit High School Chapel Use Permit and Design Review. My professional resume is attached.

Findings of my review are summarized below.

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### **Baseline Traffic Counts Appear Unrepresentative**

Observant neighbors to Jesuit High School noticed that the intersection turning counts for the May 2012 Transportation Study were apparently taken on Thursday, September 15, 2011. The neighbors noted that although the Transportation Study states on page 11 that schools were in full session, and point out that elementary, middle and high schools in the entire San Juan Unified School District dismiss at 1:00 – 1:30 pm on Thursdays. The missing school traffic from the early-closed public schools would result in understated traffic in the 'after-school' period that started at 2:30 pm and perhaps even in the pm peak hour. The neighbors also note that September 15, 2011 was 'Back To School Night' for Jesuit High School. They question whether Jesuit had early dismissal on this particular day.

In consideration of these concerns, I compared the existing traffic counts on Figure 3 of the May, 2012 Transportation Study to those on Figure 1 of the Traffic Study in support of the 2010 IS/MND. Only 6 of the 7 intersection count locations taken in 2012 were subject to comparison because the intersection of Fair Oaks Boulevard with Genesee Court was not analyzed in the 2010 work. Also, the comparisons are only for the am and pm commute peak periods because the 2010 work did not take counts in the immediate after school dismissal period. The comparisons between the two sets of counts that are able to be made are as follows.

For the am peak, the September 2011 counts have lower numbers of total movements at all 6 intersections than the 2010 counts by percentages ranging between 4.8 and 6.4 percent with an average percentage decrease of 5.6 percent. These percentage decreases in traffic are well within the range of day-to-day traffic variation experienced on a street carrying 31,000 vehicles daily as Fair Oaks Boulevard does, so the lower am counts are not different to an extent

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that would suggest the am counts were taken on a seriously anomalous day. Nonetheless, the fact that they are consistently lower than previous counts is noteworthy.

The comparison of total movements at each intersection for the pm peak period presents a significantly different picture. At 4 of the 6 intersections, total traffic movements in the September 2011 counts were lower than those in the prior study by between 1.6 to 5 percent. As noted above, these variations are within the normal day-to-day traffic variations along a street carrying 31,000 vehicles. However, total movements in the pm peak at the other two intersections were lower than those in the 2010 study by 10.1 and 11.8 percent. These variations are well above the normal day-to-day traffic variation that would be expected along Fair Oaks Boulevard. Also significant is the fact that both of these abnormally low-count intersections along Fair Oaks Boulevard are the ones most directly related to provision of access to Jesuit High School, those at Jacob Lane and at Gordon Lane.

We compared the specific movements to-and-from Gordon Lane and to-and-from Jacob Lane in the 2011 counts with those in the prior study. In the am peak, these specific movements were in the expected range of normal day-to-day fluctuation of traffic (in fact, the am movements to/from Gordon Lane were actually 6.2 percent higher than in the prior study). However, in the pm peak the movements to/from Gordon Lane and to/from Jacob Lane are vastly lower than in the prior study's counts. At Gordon Lane the 2011 pm peak movements are 23.3 percent lower; at Jacob Lane the 2011 pm peak movements are 54.8 percent lower than in the prior counts. Something unusual was clearly affecting traffic, at least in the pm peak on the day the September 2012 counts were taken.

Since the entire traffic analysis flows from the quantification of existing conditions, the transportation study's consultants should repeat the counts on a

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date confirmed to not be an unusual day at Jesuit and not on a Thursday when other area schools have early dismissal.

**Purported Improvements In Traffic Operations at Intersections along Fair Oaks Boulevard in the Existing + Project Condition Are Substantially the Result of Unsupported and Illogical Assumptions Regarding Shifts in Drop-Off/Pick-Up Traffic and the Approach/Departure Paths of this Traffic**

I was surprised at the extent of operational improvements at intersections along Fair Oaks Boulevard that experienced no actual physical improvements and should have experienced little if any decrease in the volume and pattern of traffic flows; intersections such as those of Fair Oaks Boulevard with Mariemont and with Mission/Lantern. Improvements to operations at these intersections in the Existing + Project scenario are ostensibly the result of platooning effects of the new signal at the intersection of Fair Oaks with Arden Hills CC/new Project Driveway. That is to say, the new signal should create some additional gaps in Fair Oaks traffic flows for sidestreet traffic at these other intersections. However, because the operational improvements at these intersections were so extensive, particularly in the am peak, I wanted to make sure there wasn't something else going on, such as a mis-calculation that eliminated trips in the 'with Project' scenarios. As a result, I compared the Existing to the Existing + Project traffic counts for the am peak.

According to Table 6 on page 20 of the Transportation Study, the Project would generate some 39 more am peak trips than the existing condition. Because the major change in traffic volume resultant from the Project's access improvement should be a shifting of some traffic between Gordon Lane and the new driveway as well as shifting some drop-offs to the away from the drop-off accessed from Jacob Lane north drop-off accessed via Gordon Lane or the new driveway, the net amount of traffic coming into the area along Fair Oaks Boulevard in the am

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peak should increase somewhat. However, in reviewing the DEIR traffic projections for the Existing + Project condition, it seemed there was no such increase.

First I looked to the east end of the study corridor, the intersection of Fair Oaks Boulevard and Jacob Lane. Here, the pattern of movements will change to reflect shifts from the Jacob Lane drop-off to the north drop-off served by the new driveway, but I expected the change in the net number of movements through the intersection would not be large. However, comparing the total existing am peak traffic movements at this intersection (from Figure 3 in the Transportation Study) to those for the Existing + Project scenario (from Figure 6)<sup>1</sup>, reveals that the sum of the am peak traffic movements in the Existing Condition is 3253; the sum in the Existing + Project condition is 2966. In other words, instead of adding a few trips, somehow the Project purportedly causes 287 trips to *disappear* from this intersection.

Next I drew an imaginary cordon around Fair Oaks Boulevard from just east of the intersection with Arden Hills/new Driveway and extending to just west of the intersection with Gordon/Stewart and separately summed, for the am peak hour, all the entries and all the exits to the cordoned segment for each of the Existing Condition (from data on Figure 3) and the Existing + Project scenario (from Figure 6). The cordon analysis reveals the following:

For the Existing Condition in the am peak:

- A total of 3203 vehicles entered the cordon. Entering from the access serving Jesuit HS and the Gordon Lane residences were 90 vehicles. Entering from other locations were 3113 vehicles.

<sup>1</sup> These correspond to Plates TC-2 and TC-3 in the DEIR



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- A total of 3201 vehicles were reported to exit the cordon. Exiting to the access serving Jesuit HS and the Gordon Lane residences were 336 vehicles. Exiting the cordon at other points were 2865 vehicles.
- The difference between 3203 observed entries to the cordon and only 3201 exits (difference of 2) is inconsequential observational error – probably 2 vehicles entered the cordon area in the last seconds before the peak hour cut-off but hadn't yet reached their exit point. For simplicity, we assume that the total of both am peak entries and exits to the cordon was 3203.
- Of the 3203 vehicles passing through the cordon in the am peak, 90 enter from the Jesuit HS/Gordon Lane residents access and 336 exit the cordon to that same access. So in the am peak, 426 trips passing through the cordon are to/from the Jesuit HS/Gordon Lane residents' access. The remaining 2777 involve travelers to other locations.

For the Existing + Project Condition in the am peak:

- A total of 3240 vehicles entered the cordon. Entering from the 2 access points now serving Jesuit HS and the Gordon Lane residences were 253 vehicles. Entering from other locations were 2987 vehicles.
- A total of 3238 vehicles were reported to exit the cordon. Exiting to the 2 access points now serving Jesuit HS and the Gordon Lane residences were 508 vehicles. Exiting the cordon at other points were 2730 vehicles.
- The difference of 2 between vehicles entering the cordon and leaving it (3240 vs 3238) is inconsequential and the result of the timing-related observational error in the existing condition data described above. For simplicity, we assume that the total of both entries and exits to the cordon in the Existing + Project condition is 3240.

Of the 3240 vehicles passing through the cordon in the am peak in the Existing + Project scenario, 236 enter from the two Jesuit HS/Gordon Lane residents access points and 508 exit the cordon to those same two access Points. So in

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the am peak for the Existing + Project scenario, a total of 744 trips passing through the cordon are to/from the two Jesuit HS/Gordon Lane residents' accesses. This is an *increase* of 318 vehicles over the existing condition. The remaining 2496 passing through the cordon involve travelers to other locations. This is a *decrease* of 281 vehicles from the existing condition.

The only ways there could be such a large net decrease from the existing condition in the number of vehicles passing through the cordon to/from locations other than Gordon Lane and the proposed new driveway are 1) if there were an error in the traffic assignment or 2) if it is assumed that there are a very large number of trips involving drop-offs to Jesuit that, in the existing condition, approach from west of the school along Fair Oaks Boulevard, bypass the opportunity to make the drop-off at the parking lot off Gordon Lane, continuing along Fair Oaks Boulevard to the drop-off point on Jacob Lane, then retrace their approach path in reverse, back to the west along Fair Oaks Boulevard.

The Transportation Study states on page 22 that it assumes 90 percent of the drop-off/pick-up traffic that approaches the Jacob Lane drop-off point from west of the school would shift to the new access point in the Existing + Project condition, but it presents no evidence indicating how many trips from west of the school currently bypass the facility off Gordon Lane to use the one at Jacob Lane. The Transportation Study also assumes that 10 percent of the existing drop-off trips at Jacob Lane that approach Jesuit from the east would also shift their drop-off point to the new driveway. These trips would be additive to the cordon volume in the Existing + Project scenario as would at least some of the 39 more am trips associated with increased enrollment. So to achieve a net decrease of 281 from existing am peak cordon volume traveling to/from somewhere other than Gordon Lane and the proposed new driveway, there would have to presently be in excess of 160 drop-off vehicles approaching west that bypass the Gordon Lane facility to use the more distant Jacob Lane drop-off,

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then retrace their path in reverse, going back to the west along Fair Oaks Boulevard.

The DEIR and the Transportation Study do not document any factual evidence demonstrating knowledge of where the drop-off vehicles using the Jacob Lane facilities actually come from or where they go after making their drop-off. Nor is the assumption that 90 percent of the drop-off vehicles that approach from and return to the west along Fair Oaks Boulevard would alter their behavior and shift to the new driveway supported. Hence, the assumed shift of the large number of vehicle routes that decreases traffic at key locations along Fair Oaks Boulevard is nothing more than a combination of hypothetical assumptions on the part of the Transportation Study analysts. Moreover, the assumptions are extremely favorable to the Project since they eliminate nearly 300 existing vehicles from the analysis of several key intersections along Fair Oaks Boulevard.

Relying on such a favorable combination of unsupported assumptions without considering the outcome under other plausible less favorable assumptions is inconsistent with the good faith effort to disclose impact demanded by CEQA. In addition, the assumptions relied-on are highly questionable. It is very unlikely that the vast majority of drop-off drivers approaching from the west along Fair Oaks Boulevard in the existing condition would bypass the facility off Gordon Lane to use the more distant and congested Jacob Lane facility. It is also unlikely that all of those drivers who do so, after making their drop-offs, would retrace their paths in reverse, heading back to the west on Fair Oaks Boulevard. More likely, most of the drivers making drop-offs at Jesuit continue on to a place of employment rather than returning home, with their continuing journey to their place of employment on a different path than their reverse path home from Jesuit. Those who do come from the west and bypass the facility of Gordon to make their drop-offs at Jacob Lane probably do so because they are continuing on to a destination more easily accessed from the Jacob lane drop point. So it is

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clear that the traffic assignment for the am Existing + Project condition is based on a flawed hypothetical speculation that is highly favorable to the Project.

The DEIR's analysts must either correct the error in the traffic assignment, provide substantial data demonstrating that in the existing condition large numbers of drop-off vehicles approaching via Fair Oaks Boulevard from west of the school bypass the facility off Gordon Lane to drop-off at Jacob Lane and return west or adjust the future traffic assignment to reflect numbers of drop-offs at Jacob Lane by vehicles approaching via Fair Oaks Boulevard from west of the school that can be supported by substantial data. When the Existing + Project am peak traffic forecast is corrected, the intersection level of service and queuing analysis computations must be completely recompiled.

#### **The DEIR's Queuing Analysis and It's Interpretation Are Flawed**

The DEIR's Appendix A Transportation Study performs a queuing analysis at each study intersection and for each scenario evaluated. However, at each point at which the queuing analysis is discussed, the DEIR asserts that *"a queue length analysis provides additional information regarding the flow of traffic when there is not a volume to capacity impact. It should be noted that there are no significance thresholds for queue lengths; therefore this discussion of queue lengths has been provided to supplement the intersection LOS analysis above."* This statement is a distortion of fact. The only part of the statement that is true is that Sacramento County has not adopted any formal significance criteria related to queue length. However, traffic engineers have a clear understanding about when queue lengths are significantly impactful. One case is when the 95<sup>th</sup> percentile queue in a right turn or left turn lane approaches to an intersection exceeds the available storage length in that lane, so that the excessive queue blocks flow in the through approach to that intersection. In that case, the subject intersection will actually function (or be dysfunctional) at a worse LOS than

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indicated in the theoretical LOS calculations. The other situation is when, either as the result of turn lane queues overflowing the storage lanes or through lane volumes exceeding the capacity of a downstream intersection intersection, the queues from the downstream intersection extend into the limits of an upstream intersection, blocking some or all of its flows and causing it to operate at a worse LOS than predicted in theoretical LOS calculations. Because the DEIR ignores these fundamental traffic engineering principles and attempts to label the queuing analysis as, in essence, gratuitous information, it is misleading to the public and inadequate as an informational document.

The second problem with the DEIR's queue analyses is that all of it has been compiled hypothetically (including the existing condition queues) through the theoretical traffic simulation model called Sim Traffic. Though existing queues could have easily been measured, the DEIR has made no actual measurement of existing condition queues to verify and calibrate the accuracy of the Sim Traffic simulation. Unfortunately, the Sim Traffic model as applied in this instance is extremely inaccurate in predicting existing queues. In a recent weekday evening peak, this writer frequently observed eastbound queues in the through lanes approaching the intersection of Fair Oaks Boulevard with Jacob Lane extending back into the intersection Fair Oaks Boulevard with Lantern Court. The intersection of Lantern Court with Fair Oaks Boulevard is separated from the eastbound stop bar on Fair Oaks at its intersection with Jacob lane by about 565 feet. The DEIR's traffic simulation predicts the 95<sup>th</sup> percentile queue at this location to be only 276 feet, or only about 48 percent of the actual observed queues.<sup>2</sup> Obviously, the theoretical simulation grossly under-predicts queue lengths and actual LOS is considerably worse than predicted in the DEIR. The DEIR analysis must measure existing queues and adjust the Sim Traffic simulation so that it reasonably replicates existing observed queues.

<sup>2</sup> The intersection with Genesee Court is only feet from the eastbound stop bar at the intersection of Fair Oaks with Jacob Lane and is blocked by existing traffic queues with considerably greater frequency and for far longer duration than Lantern Court.



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**The DEIR Overstates the Adverse Traffic Consequences of the Two Alternatives that Construct the Chapel Project But Without the New Roadway Access to Fair Oaks Boulevard**

The DEIR analysis of the two alternatives that construct the chapel but without the new access road to Fair Oaks Boulevard unreasonably overstates adverse transportation consequences of dependence on site access/egress via the signalized intersection of Gordon Lane with Fair Oaks Boulevard, biasing the analysis against favorable consideration of those alternatives. It does this in several ways.

1. It analyzes the northbound approach of Gordon Lane to Fair Oaks Boulevard in the existing condition and in the two Chapel Project Gordon Lane Access Alternatives as if this were simply a single approach lane used by all possible movements. However, observation of actual usage reveals that this approach, although not striped as a two lane approach is used de facto as such, with the right lane used exclusively for right turns and the left lane used for left turns and the rare straight through movement. Moreover, in Jesuit's 1992 use permit approval, the institution was conditioned to improve the Gordon Lane approach to Fair Oaks Boulevard to actually be a 2-lane approach.<sup>3</sup> So the approach is not just a de-facto 2-lane approach; it was officially conditioned as such. If the DEIR transportation study had analyzed this intersection as it was officially conditioned and actually is used operationally, it would have found more favorable LOS and queue lengths reduced at this location in the Existing + Chapel Project Gordon Lane Access Alternatives and in the cumulative condition for these alternatives than the DEIR indicates. The analysis should be redone treating this approach as the two lane approach it currently operates as.

<sup>3</sup> A copy of the 1992 use permit conditions is attached.

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2. As noted in a previous section, the DEIR assumes that a large percentage of the existing drop-off traffic approaching from the west along Fair Oaks Boulevard bypasses the potential drop-off point accessed via Gordon Lane in the existing condition to make the drop-offs at the more distant Jacob Lane but assumes that 90 percent of these would use the westerly drop-off point in the Existing + Proposed Project condition. However, the DEIR traffic analysis subjectively and unreasonably assumes that only 50 percent of this drop-off traffic would use the westerly drop-off point in the case of the Chapel Project Gordon Lane Access Alternatives. Logically, the primary reasons drivers coming from the west and returning to the west would bypass the westerly drop-off alternative is the difficulty in regaining access to Fair Oaks Boulevard with Fair Oaks Boulevard traffic uncontrolled in the existing condition or because they are continuing on to a secondary destination they consider more easily accessed from the Jacob Lane drop point. Signalization of Gordon Lane or a new access driveway would alleviate the first drawback to westerly drop-offs about equally to signalization of a proposed new access drive to Fair Oaks. Those coming from the west that now find it desirable to drop off at Jacob Lane for other reasons than difficulty getting back onto Fair Oaks will probably continue to use Jacob Lane. Consequently, the amount of drop-off traffic from the west shifted from the Jacob Lane facility to the westerly drop-off should be assumed equal under the Proposed Project and the Chapel Project Gordon Lane Access Alternatives. The subjective differential in diversion assumed by the traffic analysis biases the findings in favor of the Proposed Project and against the Chapel Project Gordon Lane Access Alternatives. The analysis should be recompiled under an assumption of equal diversion of this component of traffic including the cumulative analysis.
3. The DEIR unfairly attributes unsatisfactory LOS on the Arden Hills Country Club driveway approach to Fair Oaks Boulevard to nuances of the

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Chapel Project Gordon Lane Access Alternatives. In fact, LOS problems at that location are the consequence of the decision to maintain a closed gate on the Country Club's original access drive from Mission. As a consequence of this closure, any travelers leaving the Club with the intent to go north must leave via the driveway to Fair Oaks, make a left against heavy traffic and then another immediate left onto Mission.

4. The DEIR embellishes the consequence from its transportation study's evaluation of sight distance at the intersection of Gordon Lane and with Fair Oaks Boulevard in a way that biases the analysis against the Chapel Project Gordon Lane Access Alternatives. The Appendix A Transportation Study conducted a 'by the book' analysis of sight distance the Gordon Lane approach to Fair Oaks Boulevard. It found that *"the Gordon Lane approach meets the sight distance requirement in the western direction but not in the eastern direction"* (presumably, given the subsequent finding, "eastern direction" is intended to mean sight distance from Gordon to eastbound traffic on Fair Oaks Boulevard). It concludes *"For this reason, northbound right-turns on red from Gordon Lane may have to be restricted at the signal proposed under the Gordon Lane access alternatives"*.<sup>4</sup> The DEIR embellishes this cautionary conclusion to an absolute requirement for a project condition prohibiting right turn on red for the Gordon Lane access alternatives. It states on page 2-33 *"Since the sight distance requirement is not met in the eastern direction, northbound right-turns onto Fair Oaks Boulevard on a red light would be prohibited under this alternative. This prohibition on right turns would have to be a mitigation measure or condition on the project."* The embellishment of the transportation study finding in the DEIR is an inappropriate misrepresentation of the professional finding. It is also an unreasonable action preempting ordinary design practice and biasing the analysis against the Gordon Lane access alternatives. Ordinarily, the

<sup>4</sup> See DEIR Appendix A, page 35.



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decision whether or not to prohibit right turns on red would be left to the discretion of the signal designer who would determine whether sight distance adequate to permit right turn on red can be accommodated within the design. This writer reviewed the specific circumstances in this case. The primary obstruction to sight distance is tree branches and foliage that are allowed to overhang the right of way. This can be cleared. We also note that Jesuit's 1993 Use Permit conditions required the institution to improve sight distance at this location to conforming distances. If sight distances are still inadequate, the institution is in violation of its existing use permit and must rectify the sight distance obstruction whether or not the new driveway is approved.<sup>5</sup> Furthermore, the engineering improvements necessary to provide pedestrian landings at the crosswalks that would be a feature of the signal installation would also clear sight lines, since that will probably require cutbacks and small retaining walls on side-slopes that now may be part of the sight distance limitation. Also, it is fact that traffic attempting to make right turns on red can, after stopping at the stop bar, ease forward closer to the edge of the traveled way where sight distance is even less limited. So it is by no means certain, in fact even unlikely, that prohibition of right turn on red at a signal at this location would be necessary.

5. The DEIR unreasonably denigrates pedestrian improvements under the Gordon Lane access alternatives in comparison to those under the Project as proposed, stating on page 2-33 "*The Gordon Lane intersection is located west of the main campus of Jesuit High School. The improvements at this intersection do not substantially improve pedestrian access to the school due to the distance from this intersection and the main campus*". The DEIR fails to document the basis for concluding more campus-related pedestrians or pedestrians in general would benefit from signal-protected crosswalks across Fair Oaks Boulevard to the

<sup>5</sup> As previously mentioned, a copy of the 1992 use permit conditions are attached hereto.



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private driveway of the Arden Hills Country Club than the persons walking from the west and north who would benefit from signal protected crossings at Gordon Lane. For pedestrians, getting off busy Fair Oaks Boulevard sooner rather than continuing south to a crossing at Arden Hills Country Club Drive is much safer and a more pleasant environment even though there are no sidewalks on Gordon Lane. Moreover, since Jesuit controls the properties on the east side of Gordon Lane, it could develop a sidewalk there as part of the Project.

**The Transportation Impact Study Exaggerates the Impacts of the Housing Alternative in Comparison to the Project Sponsor's Preferred Alternative**

The inferior traffic performance of the housing alternative as compared to the existing condition and the various Chapel alternatives is primarily the result of the transportation study's unsupported assumptions about Jesuit traffic and arbitrary and unsupported assumptions about how traffic might divert under the various Chapel 'build' alternatives and the assumption that a traffic signal at Gordon Lane and Fair Oaks Boulevard, already ranked a high priority by the County, would not be built with the housing alternative, not a consequence of rather the characteristics of traffic generated by the housing alternative itself. The assumptions about Jesuit traffic concern the afore-discussed presumptions that 1) in the existing condition large amounts of drop-off coming from and returning the west along Fair Oaks Boulevard bypasses the opportunity to make pick-ups and drop-offs from facilities accessed off Gordon Lane and instead continues to and returns west from the more distant facility off Jacob Lane and 2) differential amounts of this western originated drop-off/pick-up traffic would divert to the westerly access point with the Chapel construction because Jesuit would fund the signal construction either at Gordon or the proposed new driveway in the Chapel construction cases. But the analysis assumes that the County would not build the signal at Gordon it already places high priority on in the case of the

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housing project and hence the diversions of western Jesuit pick-up/drop-off traffic to the westerly facility would not happen without the signal. The assumption the County would not build the signal it already prioritizes in a timely way and hence that the diversions of Jesuit traffic would not occur biases the analysis against the housing alternative. The analysis of the housing alternative should be redone under the assumptions that the Gordon signal would be constructed in a timely manner and a fair diversion of the westerly Jesuit pick-up/drop-off traffic would ensue.

I also note that in the analysis for the 'after school dismissal' hour, the trip generation rate for the Project Alternative residential use was apparently compiled by dividing the observed movements during that period to and from Lantern Court and Genessee Court by the number of residential units on those courts. The observed rate so compiled is almost 17 percent higher than the typical average pm peak rate for this type of residential use per ITE's *Trip Generation*. This leads to the obvious question of whether one or both of these courts is being used as a surreptitious pick-up point for some students or for sub-rosa student parking or involves some other anomaly that creates an artificially high rate.

**The Transportation Study's Collision Data Analysis Fails To Provide Any Basis for Assessing Whether the Project Will Adversely Impact Traffic Safety**

The so called 'Collision Data Analysis' section of the Transportation Study simply presents two tables categorizing traffic collision events that occurred along a segment of Fair Oaks Boulevard between Saverien Drive and Jacob Lane over a 5 year period. The first table presents the aggregate number of collisions by year of occurrence and severity (total/injury/fatal). The second tabulates the number of collisions by type (i.e., broadside, rear-end, etc).

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The Transportation Study fails to provide any information about where the collisions were located or concentrated. Obviously, if there were concentrations at the Gordon/Stewart intersection or at the Arden Hills CC intersection, this might have traffic safety implications for the Project but the report is silent on this. The Transportation Study contains no information comparing the actual collision occurrence to expected rates for the types of streets involved. There is no information of how many of the collisions occurred while school was in session versus out-of-session and for the ones occurring in-session, how many occurred within versus outside of normal school commute hours. There is no information regarding how many of the collisions involved people traveling to/from Jesuit High School versus elsewhere or how many involved teenaged drivers. The lack of actual relevant analysis makes obvious that the report authors simply inserted two tables of readily available collision information into the Transportation Study so that it could be claimed that impacts on traffic safety had been analyzed while in fact no relevant analysis was performed. A meaningful analysis of the traffic safety data should be performed.

#### **The Project Fails to Incorporate to Ameliorate Irritant Impacts on Neighbors**

The proposed Project could, but does not incorporate proposals to ameliorate conditions that have irritant impacts on neighbors. An example of this is the use of the campus to host events by outside groups. For instance, the campus has recently been used to host a weekend rugby game by two university teams that attracted many spectator vehicles. The playing fields are used to host events and practices of pre-high school football and cheerleading leagues, the gymnasium to host independent basketball events. The parking lots have been used as formal overflow parking for large events at Arden Hills Country Club. Obviously, the school attempts to be a good neighbor to these outside organizations, but in doing so it intensifies the irritation to its most immediate

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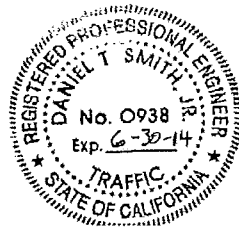
individual residential neighbors. It could ameliorate this irritation by committing, as a condition of the Project, to limit the use of Jesuit High School facilities to events directly related to Jesuit High School.

#### Conclusion

Based on all of the above, the traffic analysis in support of the forthcoming DEIR is inadequate. The entire traffic analysis should be redone in light of the comments herein.

Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.  
President

Attachments: 1992 Use Permit Conditions  
Resume of Daniel T. Smith Jr., P.E.

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USE PERMIT  
SACRAMENTO COUNTY

Control Number:  
91-UPP-VAZ-8293  
C92-3  
Assessor's Parcel No.  
289-0210-012, 013; 282-0220-021

Hearing Date: July 20, 1992

APPLICANT/OWNER:

JESUIT HIGH SCHOOL  
1200 Jacob Lane  
Carmichael, CA 95608

REPRESENTATIVE:

MARCUS LO DUCK, Attorney  
P. O. Box 15208  
Sacramento, CA 95851-0208

ENGINEER:

DENNIS DALEIDEN  
500 Morse Avenue  
Sacramento, CA 95864

PERMISSION IS GRANTED TO USE THE SUBJECT PREMISES FOR THE FOLLOWING  
DESCRIBED USES: To allow the expansion and improvement of an existing private  
high school, including faculty residences and additional parking provision on  
40.15+ acres. A Variance from provisions of Section 320.05 of the County Zoning  
Code pertaining to fencing and landscape requirements for adjacent residential  
properties.

DESCRIPTION OF PREMISES: Located at 1200 Jacob Lane in the Arden-Arcade  
area.

CONDITIONS OF APPROVAL:

1. Final Development Plans shall be in substantial compliance with Exhibits "S", "S-1", "B", "C", "D" and "E".
2. The maximum number of students allowed under this permit is 1,000.
3. Remove the existing gate at the north property line lying at the southerly end of Gordon Lane.
4. Construct a turnaround facility at the southerly end of Gordon Lane to the satisfaction of the Department Public Works.
5. Install Class "C" public street improvements on Gordon Lane between the school limits and Fair Oaks Boulevard, based on 28 feet of pavement width pursuant to Sacramento County Improvement Standards.
6. If existing County right-of-way exists within the Gordon Lane approach to Fair Oaks Boulevard, to allow for two outbound lanes at the intersection to the satisfaction of the Public Works Department. The intersection improvements shall provide the minimum visibility requirements pursuant to County Standards.

ATTACHMENT "A"

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16 - RESPONSE TO COMMENTS

Letter # 3

Attachment B



## Letter # 3



**DANIEL T. SMITH, Jr.**  
**President**

**EDUCATION**

Bachelor of Science, Engineering and Applied Science, Yale University, 1967  
 Master of Science, Transportation Planning, University of California, Berkeley, 1968

**PROFESSIONAL REGISTRATION**

California No. 21913 (Civil) Nevada No. 7969 (Civil) Washington No. 29337 (Civil)  
 California No. 938 (Traffic) Arizona No. 22131 (Civil)

**PROFESSIONAL EXPERIENCE**

Smith Engineering & Management, 1993 to present, President.  
 DKS Associates, 1979 to 1993, Founder, Vice President, Principal Transportation Engineer.  
 De Leuw, Cather & Company, 1968 to 1979, Senior Transportation Planner.  
 Personal specialties and project experience include:

**Litigation Consulting.** Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

**Urban Corridor Studies/Alternatives Analysis.** Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

**Area Transportation Plans.** Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for EMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

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**Transportation Centers.** Project manager for Daly City Intermodal Study which developed a \$7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clara Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindbergh.

**Campus Transportation.** Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

**Special Event Facilities.** Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

**Parking.** Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking.

**Transportation System Management & Traffic Restraint.** Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

**Bicycle Facilities.** Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

**MEMBERSHIPS**

Institute of Transportation Engineers      Transportation Research Board

**PUBLICATIONS AND AWARDS**

*Residential Street Design and Traffic Control*, with W. Homburger *et al.*, Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

*Residential Traffic Management, State of the Art Report*, U.S. Department of Transportation, 1979.

*Improving The Residential Street Environment*, with Donald Appleyard *et al.*, U.S. Department of Transportation, 1979.

*Strategic Concepts in Residential Neighborhood Traffic Control*, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

*Planning and Design of Bicycle Facilities: Pitfalls and New Directions*, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets. San Francisco Bay Area and London*, with Donald Appleyard, 1979.

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## Attachment 3





## SMITH ENGINEERING & MANAGEMENT

May 11, 2006

Mr. William D. Kopper  
Attorney at Law  
417 E Street  
Davis, CA 95616

**Subject: Placer Vineyards Revised Draft Environmental Impact Report**

P06003

Dear Mr. Kopper:

Per your request, I have reviewed the Revised Draft Environmental Impact Report on the proposed Placer Vineyards Specific Plan (hereinafter the RDEIR). My review has concentrated on the transportation and circulation component of the RDEIR. This letter-report summarizes my comments on the RDEIR for transmission to Placer County.

My qualifications to perform this review include registration as a civil and traffic engineer in California and thirty-eight years of professional consulting practice in those fields in this state, including considerable experience in both preparation and review of the transportation/circulation components of environmental documents. I am familiar with the project area and its environs and have had involvement in various capacities in a number of projects in Placer County affecting transportation and circulation. My resume is attached.

### **RDEIR Fails To Analyze, Disclose And Mitigate Project Traffic Impacts For AM Peak Period**

The analysis of traffic impacts and mitigation requirements for intersections in unincorporated Placer County, Sutter County, the City of Roseville and at intersections under Caltrans jurisdictions is carried out only for the PM peak period. Only in the case of intersections studied within Sacramento County is the analysis carried out for the AM peak. Because AM peak traffic normally exhibits different directional patterns than PM peaks, the lack of an AM peak analysis may result in this RDEIR's failure to disclose significant traffic impacts by the project that are different (possibly at different locations or, though at the same intersection, requiring mitigation on different approaches or movements)

EE



from those disclosed by the PM analysis. This is why most communities require both an AM peak and a PM peak traffic analysis. Without the AM analysis, the RDEIR's traffic section fails to carry out the good faith effort to disclose impact that CEQA demands. Furthermore, because in the analysis of the future scenarios, many of the mitigation measures proposed in response to those project traffic impacts that are disclosed based solely on the PM analysis are directionally specific (such as the adding of an additional left turn lane for one particular approach), the mitigations defined in the RDEIR may be completely ineffective at mitigating the impacts that would have been disclosed had an AM peak analysis been carried out, and much more extensive mitigation than disclosed may be required. The text of the RDEIR in the first paragraph of page 4.7-31 concedes this point, stating, "*As individual development projects within the Specific Plan area are proposed, additional traffic analysis may reveal the need for additional improvements to provide acceptable operations for the AM peak period operations as well.*" Hence, it is clear that the RDEIR has not disclosed to the County Board of Supervisors and the public what the full extent of traffic impacts and mitigation needs of this Specific Plan are, thus not complying with CEQA requirements for disclosure of impacts and mitigation.

At best, delaying disclosure of AM peak traffic impacts and mitigation requirements to possible subsequent traffic studies constitutes a deferral of mitigation that is improper under CEQA. However, such subsequent traffic studies that would disclose AM traffic impacts may never happen at all. Because the subject RDEIR is billed as a "project level" EIR (as contrast with a "programmatic-level" EIR), as stated on page 2-8 of the RDEIR, for residential projects, if County staff determine that the projects are consistent with the Specific Plan and with land use patterns and assumptions anticipated in detail in this RDEIR, Government Code Section 65457 and CEQA Guidelines Section 15182 provide that no EIR or Negative Declaration need be prepared prior to approving such residential projects. Pages 2-9 and 2-10 of this RDEIR also detail how individual non-residential projects in the Specific Plan area could also be exempt from any requirements for further EIR or Negative Declaration preparation provided that the proposed, provided that the proposed tentative map is consistent with the densities assumed for the affected area in the Specific Plan and this RDEIR, provided it complies with the mitigation requirements adopted in connection with the Specific Plan approval, unless there are impacts that are peculiar to the individual proposed parcel and project or unless there is substantial new information shows that previously-identified impacts will be more significant than previously assumed. Given these circumstances, it seems unlikely that any analysis to disclose and mitigate the AM peak traffic impacts of the Specific Plan project will ever be performed.

EE cont.

#### **Segment Level Of Service Analysis Understates Traffic Impacts**

The roadway segment level of service analysis reflected in Table 4.7-4 (and others) assumes that the maximum daily traffic for each Level Of Service (LOS)

FF



gradation for arterial roadways would be per the "moderate access control" category. In reality, most of the roadways analyzed would be more reasonably characterized as having "low access control" (and consequently able to serve lower maximum daily traffic within each LOS gradation) with a few segments having "high access control" (greater traffic capacity within each gradation). As a result, the analysis probably understates the severity of impact on many segments relative to existing conditions. However, since the project or its mitigations upgrade most of the arterial roadways affected in ways that will inherently create a "high" level of access control, (except possibly in some situations where existing fronting uses will retain current access), this inaccuracy does not affect the assessment of the mitigated conditions.

FF cont.

#### **RDEIR Fails To Analyze Traffic Impacts On Freeway Ramp Merge, Diverge And Weaving Sections**

Yet another glaring omission in the RDEIR traffic impact analysis is the failure to analyze traffic impacts relative to freeway ramp adequacy considering merge, diverge and weaving section LOS. The analysis of the project's effects on freeway ramps is limited to a presentation of the daily ramp volume changes caused by future development scenarios. Because of the lack of merge, diverge and weaving section LOS calculations, the RDEIR offers no reasonable basis for knowing what impacts the project may have on freeway ramps.

GG

#### **Methodology Relied-on For Intersection Traffic Impacts Is Obsolete And Provides Insufficient Information For Full Disclosure Of Impacts.**

Placer County, Sacramento County, Sutter County and the City of Roseville rely on intersection Level Of Service (LOS) analysis by various adaptations of Circular 212 procedure. Circular 212 is now a quarter-century old methodology that was created as an interim analysis procedure pending updating of the Highway Capacity Manual (hereinafter the HCM). It has now been rendered obsolete by multiple subsequent editions of the HCM. While analysis under Circular 212 procedures does provide a relative measure of the differences in transportation effects of various development scenarios, it may not disclose the full severity of impacts that might be disclosed if the analysis had employed the more modern Highway Capacity Manual techniques that are generally accepted in the traffic engineering profession. The desire to maintain a consistency with techniques employed in earlier planning work is not a reasonable justification for failure to employ accepted best practices. Continuing to rely on Circular 212 procedure is akin to navigating by sextant or 'dead reckoning' when modern navigation devices like LORAN and global positioning systems are available.

HH

Current traffic analysis practice over the past two decades evaluates Level Of Service relative to delay experienced by motorists. Delay to motorists generally increases at exponentially higher rates as traffic approaches or surpasses the capacity of a road or intersection. HCM level of service procedures compute



delay experienced by motorists and grade LOS based on amount of delay experienced. By contrast, the obsolete Circular 212 procedures relied on in the RDEIR grade LOS based on an abstract value, the volume-to-capacity ratio (hereinafter v/c). The issue is that, in laymen's terms, v/c that is the criterion in the Circular 212 method increases roughly proportionate with traffic whereas, as capacity is approached or exceeded, the delay, which is the criterion in the HCM method and which is the actual impact the public perceives, increases at increasingly higher rates. Hence, the real traffic impacts that the subject Specific Plan project causes, which are often in the LOS E or F range where the exponential increases in delay that the public perceives as impact are considerably greater than the apparent impacts indicated by the linear and abstract v/c measure of the obsolete Circular 212 method. Thus, because of the obsolete analysis methodology the involved jurisdictions have been accustomed to relying upon, the RDEIR presents an abstract and understated disclosure of the significance of the significant impacts the Specific Plan project would have.

HH cont.

A second significant reason why reliance on the obsolete Circular 212 analysis methodology understates traffic impacts is because it does not provide information regarding traffic queues (stacking) at the intersections analyzed whereas the current HCM method does so. Queue length information is critical to the analysis of impacts of busy intersections because, if queues in turn storage lanes exceed the length of the lanes (thereby blocking flows in the through lanes) or queues in the through lanes extend beyond the length of the turning lanes (thereby blocking access to the turn lanes), a kind of condition the public refers to as "gridlock" will occur where the actual traffic impacts, the LOS experienced and the delay suffered, will be worse than indicated in the theoretical LOS computations. With the queue length information provided by the current HCM method, the analyst is able to disclose the significant impact problem and propose appropriate mitigation such as adding lanes or extending turning lanes. Because the Circular 212 method provides no queue information, significant traffic impacts caused by excessive queue lengths remain undisclosed.

#### **RDEIR Analysis Methodology Understates Traffic Impacts Where Low Volume Crossroads Intersect Busier Roads At Two-Way Stops**

A nuance of the analysis methodology employed to analyze unsignalized intersections may understate the impacts at intersections controlled by two-way stop signs (but not 4-way stops). The analysts have chosen to use as the criterion of impact the *average delay total for all approaches* (whereas they could have chosen some criterion that would have considered the possibility of intolerable delay on any one approach). Consider the situation where a minor roadway with stop control intersects a major road without stop control (the classic rural 2-way stop condition). In the existing condition, traffic on the minor road approaches must wait for a safe gap in traffic on the major road before it can proceed, but with light to moderate traffic, the waits are not intolerable. Under

II



the analysis criterion selected, in a future development scenario that adds considerable traffic to the major road but very little to the minor road, traffic on the minor road approaches might have to wait forever for a safe gap in traffic, but the analysis would show no significant impact because the *average delay for all approaches* computation would be dominated by traffic on the major street approaches that experiences zero delay. The RDEIR subtly admits this consideration in footnotes to tables (see, for example, footnote 1 to Table 4.7-17), stating: "*Average delay for all movements at intersection, including uncontrolled movements. Delay on some stop-controlled left turn movements may be substantial, but typically impacts a limited number of vehicles.*" The analysis criterion or significance in this procedure is unreasonable. If the same few individuals repeatedly suffer interminable delays every time they attempt to leave or return home through an intersection they cannot reasonably avoid, that is a significant impact. Since the delay on individual movements is reported by the analytic computation procedure, the analysts could easily have established some reasonable level of delay for low volume approaches that would be considered a threshold of significant impact, even if that delay is experienced by a relatively small number of drivers.

II cont.

#### **No Basis To Conclude RDEIR Has Evaluated Conditions Over Broad Enough Area To Disclose Full Extent Of Specific Plan Traffic Impacts**

One of the fundamental questions one must examine in reviewing a traffic impact analysis is whether the analysis searched far enough in seeking to disclose impact. The RDEIR discloses that the project would generate in excess of 152,000 daily trips onto the area street and highway network external to the project limits. This amount of generated traffic would reasonably be expected to affect roadway facilities over a very broad area. While the RDEIR does disclose extensive traffic impacts of the project, it provides no indication regarding what methods of investigation, if any, were undertaken to assure that the project's traffic impacts do not extend over a broader area than that encompassed by the impacts disclosed. For instance, it appears entirely likely that, in the Roseville area, the project's traffic impacts could well extend to intersections to the east of Interstate 80. However, no intersections in this area have been studied. Likewise, it is reasonable to expect that the project's impacts on I-80, Business 80, and 70-99 might extend farther from the project area than the segments for which significant impacts were disclosed. Unless the RDEIR provides some assurance that its analysis limits extend to the farthest reaches of the area where the project produces significant traffic impacts, it cannot be said to have made the good faith effort to disclose impact required by CEQA.

JJ

#### **Specific Plan Proposes County General Plan Policy Change That Would Create Confusion With Respect To CEQA Requirements**

CEQA Article 21002 requires that for a project to be approved all *feasible* mitigation measures that would lessen the project's significant environmental

KK



impacts must be implemented. CEQA Article 21061.1 provides an explicit definition of "feasible". Placer County General Plan Policy 3.A.7 provides policy guidance for development and management for its roadway system including a listing of considerations under which exceptions to the County's level of service policy goals for developing and maintaining its roadway system could be made. The project applicants seek to modify another Placer County General Plan policy, Policy 3.A.12, that requires each development project to construct or fund improvements necessary to mitigate the effects of traffic from the project by adding the words "consistent with Policy 3.A.7". The apparent objective of the amended language is to attempt to substitute the more flexible terms of General Plan Policy 3.A.7 regarding the County's development and management of its roadway system for CEQA's explicit definition of feasibility with regard to mitigation, thereby making it more likely that the County might create exceptions that would obviate mitigation requirements. While this artifice seems unlikely to withstand an actual test of law, the proposed change to Policy 3.A.12 would create confusion wherein public policymakers might take actions believing they were in compliance with CEQA when they were not, thereby forcing the interested public to seek recourse through a test of law. Therefore, the proposed amendment to should be rejected.

KK cont.

**Traffic Impacts of Specific Plan Project's Proposed Changes To County Transportation and Circulation-Related Goals and Policies Not Analyzed In RDEIR. All Analysis Of Impacts and Mitigation Requirements In RDEIR Based On Presumption That Proposed Degradation Of County Standards Is In Force**

Under Specific Plan Transportation and Circulation-Related Goals and Policies, in proposed Policy 5.1, the Specific Plan proposes to insert an exception to Placer County *General Plan* Policy 3.A.7 wherein Level Of Service on the roadway system within the Project's Specific Plan Area and on its boundaries would be allowed to be degraded to LOS D (as contrast with *General Plan* Policy 3.A.7's requirement that LOS C be maintained except within a half-mile of state highways where LOS D is accepted). Nowhere does the RDEIR analyze the traffic impact of this blanket degradation of County LOS standards over the extended roadway system within the Specific Plan and on its boundaries. Since the project being evaluated under CEQA is the Specific Plan, the RDEIR is deficient in failing to disclose the traffic impacts of the Specific Plan's goal and policy component involving proposed degradation of LOS standards. It would be reasonable to expect that, at a minimum, the RDEIR would disclose estimates of increased daily or annual vehicle-hours of delay that degradation of the LOS standard would result in, and summarize the differences in mitigation requirements that would result from maintaining the established LOS standards or implementing the degraded LOS standards proposed, as well as evaluating the implications of the increased traffic congestion on air quality. It is noteworthy that the entire RDEIR analysis for the roadways within the Specific Plan area and

LL



on its boundaries is presumptive that the proposed LOS standard is already in place. Hence, there is no analysis of the proposed project's impacts and mitigation relative to the existing conditions (that would include the prevailing LOS standard) that CEQA requires.

LL cont.

**RDEIR Provides No Analysis Of Specific Plan's Proposed Transportation Policies And Goals. Some Are Impractical, Internally Conflicting Or Meaningless**

Many of the Specific Plan's Transportation Policies and Goals embrace attractive-sounding concepts and ideals, but thoughtful examination reveals them to be impractical, internally conflicting or meaningless. Consider, for instance, Roadway Design Guideline 7 and Policy 5.15. Roadway Design Guideline 7 (Page 4.7-20) states that *"neighborhoods should be designed with internal connecting streets to encourage a more open and accessible network for residents and improve the distribution of traffic throughout the roadway network"*, a street configuration that is known to inherently lead to resident concerns about traffic volume, speed, noise, safety and quality of life on residential streets unless a considerable application of traffic calming treatments is made. Policy 5.15 (pages 4.7-22 & 23) states that *"use of traffic calming roadway design techniques in the design of residential streets and intersections is required. Techniques may include corner bulb-outs at intersections, traffic circles and rotaries, chokers, chicanes, etc. In all cases, traffic calming devices shall be designed not to restrict access by emergency vehicles or inadvertently limit emergency response times below the required level of service standard. Yet traffic calming devices inherently adversely affect emergency response, individually and cumulatively.*

MM

We note that the RDEIR only presents these guidelines and policies; it is deficient in failing to provide any critical assessment of them. Had the RDEIR provided the objective assessment it should have, it would have pointed out that traffic calming devices inherently restrict emergency response times, and that gaining the values of an open and accessible street network while providing enough traffic calming to maintain resident satisfaction about the quality of residential life relative to traffic without degrading emergency response below reasonable norms requires a delicate and not-always-successful process of compromise and balance among these three considerations:

Consider Policy 5.20 which provides that a park-and-ride lots will be provided. If the RDEIR provided the objective assessment of this policy that it should have, but fails to do, it would have noted that the minimum 193 spaces to be created under this policy are a minuscule total relative to the 152,300 external vehicle trips that the RDEIR estimates the project generates daily and that implementation of the policy as proposed, wherein it would serve less than 0.13 percent of the project's external daily traffic (even presuming that all the parking



spaces get filled by Specific Plan area travelers and are not occupied by travelers from more distant hinterlands) renders the policy inconsequential and meaningless.

Transportation and Circulation-related Policies 5.16 through 5.19 concern provision of physical facilities in support of public transit. If the RDEIR contained the objective comment on these proposed policies that it should, it would state that, absent a regional commitment to massive increased funding for transit operations that elsewhere the RDEIR admits is highly doubtful, the effect of these policies is largely meaningless.

A similar example involves Policy 5.6 on Regional Transportation Improvements which states that Placer Vineyards landowners and the County will define (*but not necessarily enter into*) development agreements that ensure the project pays for its fair share of transportation improvements. While this weasel-worded policy gives the impression that the Project will provide funding to mitigate its transportation impacts, if the RDEIR had actually objectively assessed the policy as it should have, it would have commented that the funding provision and mitigation would only take place at those many locations of significant project traffic impact that are outside direct control of Placer County if the responsible jurisdiction agrees to implement the specific improvement identified as mitigation for Placer Vineyards and is able to assemble the funds over-and-above Placer Vineyard's "fair share" needed to actually complete the improvement. Although it repeatedly makes this comment in comment on numerous individual project mitigation measures proposed outside Placer County's direct jurisdiction, the RDEIR leaves it to the public to "connect the dots" to realize that, on the whole, outside the direct jurisdiction of Placer County, the purported commitment of the project to fund fair share traffic mitigation improvements may be meaningless in the sense that it in no way guarantees implementation of those improvements.

MM cont.

Including a narration of the Specific Plan's proposed transportation and circulation-related goals and policies in the RDEIR without providing an objective point-by-point assessment of them is the equivalent of inserting a public relations and marketing brochure for the project that says everything about transportation and circulation is going to be perfect. This is not consistent with the EIR's CEQA-defined purpose as an information document.

#### **Assessment Of Internal Traffic Loads On Localized Project Area Roadway Network Uncertain**

In the RDEIR computation of project trip generation, of the 233,273 trips estimated to be generated by the project daily, some 40,500 trips are estimated to have both origin and destination within the project. Approximately 152,300 trips daily (233,300 minus 81,000 trip ends for the 40,500 trips that have both origin and destination within the project area) are estimated to be made between the project area and external locations. These estimates are reasonable as long

NN



as the 40,500 "internal" trips are actually assigned to the local roadway network and considered in the LOS analyses (as contrast with being "erased" from all further computations at the conclusion of the trip generation stage. The RDEIR and its Appendices provide no indication whether the "internal" trip component is actually assigned to the roadway network for LOS analysis or whether it has simply been disregarded after the trip generation stage. The RDEIR should provide a clarification on this issue and, if the internal trips have in fact been disregarded in analyses subsequent to the trip generation stage, the traffic impact LOS analyses should be recompiled with the internal traffic assigned to project area roadways including the boundary streets.

NN cont.

**RDEIR Traffic Analysis Has Not Been Performed On Project As Currently Defined.**

Footnotes to Tables 4.7-14 and 4.7-15 each note that the traffic analysis contained in the RDEIR is based on different land use assumptions than the plan currently proposed in the RDEIR. The footnotes make the unsupported assertion that "*the differences are minor and would not affect the outcome of the analysis.*" In order to reasonably demonstrate that a traffic impact analysis performed for a different plan remains adequate to disclose the impacts and required mitigations for the currently proposed Specific Plan, the RDEIR must, at a minimum, document the differences in land use, both quantitatively by use category and by location, between the plan reflected in the traffic impact assessment and the one currently proposed, and must document the differences in trip generation. The RDEIR should be revised to provide this clarification.

OO

**Finance Plan For Project Internal And Off-Site Roadway Improvements And Traffic Mitigations Is Not Reviewed In RDEIR**

The RDEIR states that the Specific Plan applicants are developing a Public Facilities Financing Plan that will outline the funding and timing of transportation infrastructure within the Specific Plan area boundaries as well as required off-site improvements, including traffic mitigation fee programs. The RDEIR states that it assumes the Finance Plan will be approved concurrently with the Specific Plan. However, since the Finance Plan is critical to a) whether the internal and off-site roadway improvements will actually be in place at the various stages of "with project" scenarios assumed in the analysis and b) whether recommended traffic mitigations are likely to be completed, it is incumbent upon the RDEIR to perform an objective review of the soundness of the Finance Plan. Absent this review, the RDEIR's assumptions about certain internal and off-site roadway improvements and project traffic mitigations being in place by certain development stages or points in time is purely speculative, which is inadequate under CEQA. Obviously, the RDEIR has not made an objective review of the Finance Plan, so all of the assumptions in the RDEIR with respect to the timing of completion of transportation infrastructure and mitigation improvements to be

PP



completed or financed by the Specific Plan applicants must be regarded as speculative.

PP cont.

### **Failure To Adequately Disclose And Mitigate Construction Impacts On Traffic**

The RDEIR briefly examine construction traffic impacts of the Specific Plan. However, that analysis is limited to consideration of the additional traffic that would be created by the travel of construction workers and transport of construction materials during the construction period. This analysis is inadequate in two major respects. First, the RDEIR completely fails to examine the construction traffic impacts of the traffic impacts caused by the construction of the project's internal and off- site roadway improvements which involve major reconstruction of significant lengths of existing major roadways and the construction of project traffic mitigations which involve major reconstruction of many busy intersections. Such major road and intersection reconstruction, many occurring in simultaneous time periods, will require multiple road closures and lane closures over lengthy periods of time that will result in massive congestion on the routes where reconstruction is taking place and cause massive traffic diversions to other routes, producing significant additional congestion in those places. The RDEIR is defective in that these significant construction impacts on traffic are not disclosed or mitigated. Second, the mitigation the RDEIR proposes for the limited construction traffic impact it does disclose, that of the movement of construction workers and materials, is simply an abstract promise to, in the future, develop construction traffic management plans for all construction activity that would seek to minimize the impacts of construction traffic. This type of abstract promise to develop future mitigation plans constitutes a deferral of mitigation that is improper under CEQA.

QQ

### **Questions Concerning RDEIR Traffic Forecasts**

RDEIR pages 4.7-35 and 36 provide a brief narrative description of how the traffic forecasts that underlie its traffic impact assessment were carried out. However, a number of key considerations in the forecasts are not clarified in the narrative and supporting materials.

1. As previously noted, some 81,000 of the 233,000 new trip ends generated by the project were assumed to comprise some 40,500 trips that are completed between trip origins and destinations internal to the project area. The question is, were these "internal trips" assigned to the local roadway network by the traffic forecast model, or were they simply "erased" from the analysis at the trip generation stage?
2. The narrative is unclear how the output from the traffic model was adjusted to provide input to those aspects of the impact analysis that are performed in terms of daily traffic volume versus those that are performed in terms of pm peak traffic. Please provide clarification. Please include in the clarification an explanation of how model output was treated for input to the ultimate LOS

RR



analyses to replicate both peak period flows that tend to have directional dominance and daily flows that tend to have directional balance.

3. As the narrative explains, for each analysis stage, the traffic model was used to define the differential on each roadway between the "no project" condition and the "with project" condition and this differential was then added to existing traffic to create the actual traffic input to the LOS impact analysis. It is acknowledged that this is a useful procedure to overcome the possibility of errors where anomalies exist in the forecast model that cause consistent underreporting or over-reporting of traffic on certain individual roadway segments. Such a procedure is reliable and reasonable where the anomalies in the forecast model are limited to scattered isolated roadway segments or specific limited roadway corridors (a common example of this latter problem occurs in models where an arterial roadway closely parallels a freeway). However, sometimes forecast models stubbornly exhibit a systematic difficulty producing reasonable forecasts over a particular subarea even though the model provides reliable results over the majority of the modeled area. If this kind of subarea anomaly exists and coincides with the Specific Plan project study area, it is inappropriate to rely on the model at all in the analysis. Please provide assurance that whatever anomalies in the Placer County traffic model that caused the incremental procedure described on RDEIR pages 4.7-35 and 36 to be adopted are isolated and not systematic to the study area or to corridors critical to the study area.
4. The RDEIR narrative on this topic indicates that, in the runs of the Placer County traffic model for the "with project" condition, the completion of roadway improvements in the project area and the presence of project generated traffic may have caused other non-project traffic to be redistributed to other destinations or to be reassigned to alternate routes in avoidance of routes that would be heavily loaded by project traffic. The question is whether the analysis looked broadly enough at the output to determine whether these redistributions and reassignments of non-project traffic caused significant traffic impacts in areas where large direct increments of project traffic would be unexpected. The fact that the RDEIR did not evaluate LOS at any intersections east of I-80 suggests that the analysis may not have been sufficiently broad-seeking to disclose all of the project's traffic impacts.

RR cont.

**Project's Significant Traffic Impacts At Intersection Of Walerga Road And PFE Road Only Mitigated To LOS D. Similar Condition True In Cumulative Analysis For Baseline Road.**

The RDEIR indicates on page 4.7-42 that the project's significant traffic impact at the intersection of Walerga Road and PFE Road would be mitigated to LOS D. Mitigation to LOS D would only qualify as mitigation to conditions of less than significance if it were to be considered on the project boundary streets (possibly a plausible interpretation since both intersecting streets do front on the project boundaries in some segments though not at this intersection) *and also* only if another proposal of the Specific Plan project, that of degrading existing Placer

SS



County criteria for acceptable LOS to LOS D (itself a significant impact of the project undisclosed as such in the RDEIR), is considered to have been approved. Since approval of the degraded LOS standard is uncertain, the proposed mitigation cannot be said to have mitigated the project's significant traffic impacts at this location.

In the cumulative analysis, a similar situation exists for segments of Baseline Road along the project's northern border. In that scenario, the RDEIR concludes that Baseline Road is not significantly impacted because it would operate at LOS D. The RDEIR fails to mention that this would be a significant impact requiring mitigation unless another facet of the Specific Plan project, that of degrading Placer County standards to allow LOS D to be considered acceptable within the project and on its boundaries, is approved.

SS cont.

**Project's Transit Impacts Not Mitigated To Less Than Significant. Also, Consequent Increase To Project Traffic Impacts Not Discussed.**

On pages 4.7-54 through 4.7-57 the RDEIR presents an extended discussion of the potentially significant impacts on transit and identifies the critical issue of financing future transit operations so that otherwise unmet transit needs can be met. However, in concluding that the project's transit impacts would be mitigated to less than significant by a significant addition of transit services that it outlines, the RDEIR fails to address the critical transit finance issue with any certainty. What it proposes is that a Community Service Area (CSA) be established to fund the extensive services and facilities the RDEIR identifies as necessary for mitigation of the project's transit impacts. In essence, this is passing on the obligation for mitigating the project's impacts to the eventual property owners of the project area (and possibly those in other areas if a broader CSA proved most appropriate. This approach appears to be a deferral of mitigation that is improper under CEQA. Furthermore, there is no guarantee that the ultimate property owners of any such CSA will approve taxing themselves to fund of transit operations and services needed to mitigate the project's impacts. Consequently, the project's transit impacts must be regarded as *unmitigated*. Furthermore, those mitigations that the project does propose to directly provide such as rights of way for bus lanes and a streetcar system, and waiting shelters are all meaningless and ineffective as mitigation unless the actual transit operations are funded by others.<sup>1</sup>

TT

Given the failure to mitigate the project's transit impacts as documented above, a further consideration is evident. To the extent that effective transit mitigation is not provided, the traffic impacts of the project will be proportionately greater than the RDEIR discloses.

<sup>1</sup> We have also previously noted that the project's provision of 193 park and ride spaces, also listed in this section as a transit mitigation, is so minuscule in relation to the scale of overall external traffic generation of the project as to be inconsequential in its mitigative effect.



Mr. William D. Kopper  
May 11, 2006  
Page 14

these instances, it does so solely on a location by location basis. It provides no assessment of the cumulative consequences of these significant traffic impact conditions that cannot be mitigated practically. Had the RDEIR considered the cumulative effect of these individual locations where mitigations are impractical as it should have, it would have concluded that the impacts, taken together, constitute a complete functional breakdown of the freeway and arterial circulation system in the project's environs of such a grave extent that no responsible government could reasonably consider approving the project under any findings of overriding considerations.

VV cont.

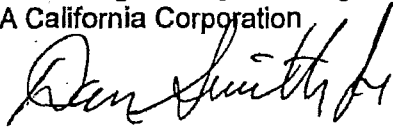
### Conclusion

This completes my current comments on the RDEIR. For the above-stated reasons, I do not believe the traffic and circulation component of the document is adequate. Furthermore, modifications to the document that appear necessary to respond to these comments may warrant recirculation of the document in draft status.

WW

Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.  
President





**William D. Kopper**

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Paralegals  
Kristin Rauh  
Sherry Augustine

September 13, 2006

VIA FACSIMILE (530) 745-3080  
AND FIRST CLASS MAIL

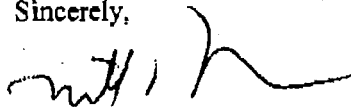
Planning Department  
Placer County  
3091 County Center Drive  
Auburn, CA 95603

RE: Placer Vineyards Specific Plan Revised Draft EIR SCH #1999062020

Dear Planning Staff:

Please find attached the comments on the Placer Vineyards Partially Recirculated Revised Draft Environmental Impact Report that are submitted on behalf of Rob Collins, Mark Steelman, and Michael Williams.

Sincerely,



WILLIAM D. KOPPER

WDK:kgr  
enclosure





SMITH ENGINEERING & MANAGEMENT

September 12, 2006

Mr. William D. Kopper  
Attorney at Law  
417 E Street  
Davis, CA 95616

**Subject: Placer Vineyards Partially Recirculated Revised Draft  
Environmental Impact Report**

P06003

Dear Mr. Kopper:

Per your request, I have reviewed the Partially Recirculated Revised Draft Environmental Impact Report (hereinafter the PRRDEIR) on the proposed Placer Vineyards Specific Plan (hereinafter "the project"). My review has concentrated on the transportation and circulation component of the PRRDEIR. I have previously commented on the Revised Draft Environmental Impact Report on this project in a letter dated May 11, 2006. This current letter-report summarizes my comments on the PRRDEIR for transmission to Placer County.

The numerous changes in significant impacts disclosed at specific roadway segments and intersections presented in the PRRDEIR do not change the pattern of massive transportation impacts that the project would cause. Mitigation of some of the project's impacts is infeasible; for some other impacts, feasibility of mitigation is disclosed as doubtful. Mitigation of many of the impacts depends on conclusion of interagency agreements with other governmental jurisdictions and, although in some cases the project will directly pay to implement mitigations, in a vast majority of cases, actual implementation of the mitigation is dependent on the emergence of other land use developments that will be fair share or fee contributors. In fact, the PRRDEIR discloses that other fee and fair share contributors will be expected to fund the vast majority of the cost of the necessary mitigations. Hence, mitigation of the project's transportation impacts is dependent

A

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on the speculative presumption that sufficient other fee- and fair share- paying developments will actually be developed in a timely manner such that sufficient funds will be raised to implement the necessary mitigation measures.

A cont.

The purported finance plan for infrastructure improvements disclosed in the PRRDEIR is vague and unspecific; it provides no more solid detail than the finance plan that was absent in the RDEIR. The two page finance plan presented in Appendix W of the PRRDEIR is simply an unsubstantiated assertion that private development will pay for the infrastructure improvements needed, either by directly funding construction of backbone infrastructure or by contributing to existing or new development fee programs or new Community Facilities Districts. It is worthy of note that formation of a Community Facilities District under the Mello-Roos Act would tend to force development on property owners inside the District since the obligation to pay since the obligation to pay the annual tax levies that such a district would involve would tend to maintain the lands in agricultural use infeasible.

B

The cost estimates contained in the "fair share traffic impact fee study" (Appendix Z) create additional doubt rather than assurance. Although the PRRDEIR asserts that the information contained in Appendix Z will "demonstrate to reviewers that, although the dollar amounts at issue are very high, they are not so high as to render the County's approach infeasible from an economic standpoint," this overconfident assertion is rendered doubtful by several considerations, as follows.

C

- Because no details are provided for the preliminary cost estimate of mitigation measures that underlies the fair share traffic impact fee analysis, the public has no way of judging how reliable these cost estimates are. If the estimates are based on purely conceptual plans and generic aggregate unit costs per foot or per mile for the various roadway types, a high level of uncertainty must be associated with the costs. If the costs are estimated from purely conceptual plans but involve rough estimates of quantity take-offs and unit prices by quantity, with consideration of necessary structures and construction difficulty based on topographic and geotechnical mapping, somewhat less but still substantial uncertainty would be associated with the cost estimates. If the costs are based on quantity take-offs from actual preliminary engineering drawings for the improvements (materials not likely to be commonly available for most improvements at this stage of project development), the cost estimates might be regarded as more reliable. Unless information is provided that allows the public to know the basis of the cost estimates and such considerations as what contingency percentage is assumed and what construction cost inflation is assumed over what duration, the cost estimates that underlie the analysis must be regarded as an issue in doubt.

D



- As we have previously noted, the project's mitigation program is dependent on other expected development materializing as fair share fee payers contributing to the pool of funds that will allow the presumed mitigations to be fully funded and implemented in a timely fashion. As we have observed, whether all of the other development assumed will actually take place in a timely fashion to implement the mitigations is a matter of speculation. Hence, the proposed mitigations themselves remain speculative. The "fair share traffic impact fee study" presented in Appendix Z provides some dimension to this concern. It shows Placer Vineyards contributing only some \$39.7 million toward a traffic mitigation program whose total costs (according to the still unsubstantiated Appendix Z estimates) would be some \$309.6 million. That is to say, other development is being counted on to provide more than 87 percent of the funding needed for mitigation projects. If 15 to 20 percent of other anticipated development scattered throughout the analysis area failed to take place in the anticipated time frame (an occurrence relative to both deferred development timing and scattered location that is often characteristic), the net traffic mitigation needs for the area would likely remain about the same but there would be a \$46 million to \$62 million shortfall in fair share fee contributions to implement the needed mitigations.
- The Appendix Z analysis unreasonably assumes that other fair share payers will emerge to pay half the fair share of project trips made to "external" (outside the Placer Vineyards project) origins or destinations. While this assumption may prove reasonable where the "external" end of the trip is at another new development within the general area where the proposed mitigation measures are to be implemented (presuming hypothesized intergovernmental agreements are implemented), fair share contributions are unlikely to happen where the "external" end of the trip is at an existing development location (whether that existing development is near or distant) or when the "external" trip end is at a new development located outside the area where mitigation improvements are being made by the project. The shortfall in mitigation funds resultant from this loophole in the fair share contribution methodology cannot be estimated from the information provided in the PRRDEIR since it does not identify how many of the project external trips will be made to existing development or to destinations outside the area of mitigation. However, it is reasonable to conclude that the shortfall could significantly impair implementation of the assumed mitigation program.

### Conclusion

Based on the foregoing, it is my opinion that the PRRDEIR previously expressed concerns about the uncertain nature of the proposed mitigation program. Due to

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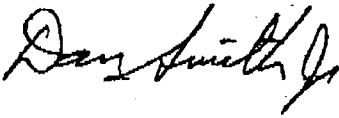
Mr. William D. Kopper  
September 12, 2006  
Page 4

this substantial uncertainty, the proposed mitigation program does not qualify as mitigation under CEQA.

G cont.

Sincerely,

Smith Engineering & Management  
A California Corporation

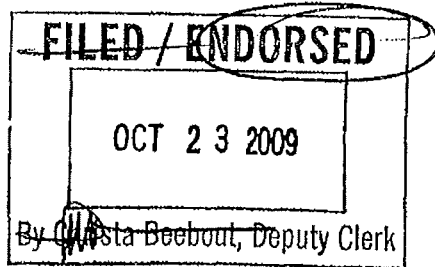
A handwritten signature in black ink, appearing to read "Dan Smith Jr.", written in a cursive style.

Daniel T. Smith Jr., P.E.  
President



## Attachment 4





SUPERIOR COURT OF CALIFORNIA  
COUNTY OF SACRAMENTO

COUNTY OF SUTTER et al.,  
Petitioners and Plaintiffs,

No. 34-2007-00028334-CU-WM-GDS  
Department 33

v.

RULING ON SUBMITTED MATTER

COUNTY OF PLACER et al.,  
Respondents and Defendants.  
PLACER VINEYARDS PROPERTY  
OWNERS GROUP et al.,  
Real Parties in Interest.

ROB COLLINS et al.,  
Petitioners and Plaintiffs,  
v.  
COUNTY OF PLACER et al.,  
Respondents and Defendants.  
CARMEN DOYLE, CO-TRUSTEE et al.,  
Real Parties in Interest.

SIERRA CLUB et al.,  
Petitioners,  
v.  
COUNTY OF PLACER et al.,  
Respondents.  
CARMEN DOYLE, CO-TRUSTEE et al.,  
Real Parties in Interest.



1 On July 16, 2007, the Placer County Board of Supervisors ("Board") approved a  
2 mixed-use development, the Placer Vineyards Specific Plan ("PVSP" or "Plan" or "project") on  
3 5,230 acres in the southwest corner of Placer County. The approved project will build out over a  
4 20- to 30-year period, reach a population of approximately 33,000, and include 14,132 residential  
5 units of in low, medium and high density configurations, 274 acres of retail and commercial uses,  
6 210 acres of parks, 714 acres open space, and 851 acres of schools, roadways and other public  
7 facilities.

8 Concurrent with its approval of the PVSP, the Board certified the environmental  
9 documents prepared for the project under the California Environmental Quality Act ("CEQA"),  
10 including a Revised Draft Environmental Impact Report ("RDEIR") released for public comment  
11 in April 2006, a Partially Recirculated RDEIR ("PRRDEIR") released for public comment in  
12 August 2006, a Final EIR ("FEIR") released in October 2006, a Second PRRDEIR  
13 ("SPRRDEIR") released for public comment in April 2007, and a Supplement to the FEIR  
14 ("SFEIR") released in June 2007.<sup>1</sup> Petitioners challenge the adequacy of the environmental  
15 documents in a number of areas discussed below.

#### 16 Water Supply

17 As approved by the Board, the potable water supply for the PVSP included a long-  
18 term surface water supply of 11,500 acre feet annually ("afa") to meet the needs of the PVSP at  
19 buildout and an initial surface water supply of 6,000 afa to meet the needs of the PVSP prior to  
20 the availability of the long-term surface water supply in approximately 2016. The initial water  
21 supply would be provided by the Placer County Water Agency ("PCWA") from its Middle Fork  
22 Project on the American River where it has appropriative rights to water diverted at Auburn or at  
23 Folsom Reservoir. The long-term water supply would be provided by the PCWA using 35,000  
24 afa of water it receives under a contract with the U.S. Bureau of Reclamation ("USBR") from the  
25 Central Valley Project ("CVP") operated by the USBR. The CVP water would be diverted from  
26 the Sacramento River or, alternatively, from the American River at Auburn or Folsom Reservoir.

27 <sup>1</sup> These environmental documents are referred to collectively in this ruling as the "EIR."  
28 References to the administrative record state the volume number followed by a colon and the page  
number(s).



1           The Sacramento River diversion providing the long-term water supply for the PVSP  
2 is a project generated by the Sacramento Area Water Forum, a group of local governments, water  
3 managers, business and agricultural leaders, environmentalists and citizen groups in the  
4 Sacramento-Placer region who have joined together for the co-equal purposes of providing a  
5 reliable and safe water supply for the region's economic health and planned development to 2030  
6 and preserving the fishery, wildlife, recreational, and aesthetic values of the lower American  
7 River. The Forum members entered an agreement in 2000 to accomplish these objectives  
8 through specified actions and commitments, including a commitment by the PCWA to transfer a  
9 portion of its diversions from the American River to the Sacramento River, either by negotiating  
10 an exchange of its Middle Fork Project water rights with an entity like the USBR with rights to  
11 divert from the Sacramento River or by obtaining an amendment of its CVP water contract  
12 authorizing it to divert CVP water from the Sacramento River.

13           To develop a water supply consistent with the Water Forum Agreement, the USBR  
14 and PCWA initiated the Sacramento River Water Reliability Study ("SRWRS") in 2002 on  
15 behalf of the Sacramento Suburban Water District ("SSWD"), the City of Roseville, and the City  
16 of Sacramento pursuant to Public Law 106-554. This congressional legislation requires the  
17 Secretary of the Interior to conduct a feasibility study for a Sacramento River diversion project  
18 consistent with the Water Forum Agreement, including a diversion by the PCWA of 35,000 afa  
19 of water as well as 29,000 afa for delivery to the SSWD. In 2005, the SRWRS issued an Initial  
20 Alternatives Report identifying and discussing diversion facility alternatives at Elkhorn/Elverta  
21 and the American River Pumping Station ("ARPS") near Auburn for further evaluation in a  
22 feasibility report and EIR/EIS.

23           A long-term surface water supply diverted from the American River at Folsom  
24 Reservoir or the ARPS near Auburn would serve as an alternative to the long-term water supply  
25 from the Sacramento River. The RDEIR indicated this alternative water supply would be  
26 diverted at Folsom Reservoir. (29:8418.) However, after the SRWRS assumed that the  
27 alternative water supply would be diverted at the PCWA's ARPS near Auburn, the SPRRDEIR  
28 changed the diversion point to the ARPS. (37:10870, 11905.) The SPRRDEIR indicates that



1 “[t]his change in diversion point has de minimus effect on the analysis performed for the in-  
2 stream effects of diversion, as modeled and presented in the [RDEIR] because the American  
3 River Pump Station is located close to the upper reaches of Folsom Reservoir, and because the  
4 Lower American River below Folsom Reservoir is the most environmentally sensitive portion of  
5 the American River and most important from a regulatory standpoint.” (29:8418.)

6           Until the long-term water supply from the Sacramento River diversion becomes  
7 available in 2016, the potable water needs of the PVSP would be met by an initial surface water  
8 supply of 6000 afa. This initial supply would be diverted by the PCWA from the American  
9 River at the ARPS, conveyed and treated at the existing Foothill Water Treatment Plant, and  
10 delivered through the transmission pipeline systems of the City of Roseville and then the PCWA  
11 to a location near the PVSP area where a proposed pipeline would deliver the water to the PVSP  
12 area. Because the capacity of the Roseville pipeline for the transmission of the PCWA’s water is  
13 limited to 10 million gallons per day (“MGD”), the pipeline capacity could be exhausted by 2013  
14 or 2014 before the long-term water supply for the PVSP becomes available in 2016. A proposed  
15 treatment plant at Ophir Road and a transmission pipeline system connecting to the PCWA’s  
16 existing transmission system, scheduled for completion by the PCWA in 2011, would avoid  
17 these Roseville capacity limitations. (37:10849-10852, 10871, 10895-10896, 10934; 32:9345.)

18           A secondary initial surface water supply of 6000 afa could be provided by the PCWA  
19 from 29,000 afa of its American River Middle Fork Project water that the PCWA contracts to the  
20 SSWD. This supply would be diverted from Folsom Reservoir and treated at a plant owned and  
21 operated by the San Juan Water District. An agreement between the PVSP developers, PCWA,  
22 Placer County, San Juan Water District, SSWD and California American Water Company (a  
23 retail water provider in western Placer County where the PVSP is located) would be necessary to  
24 provide the treatment and transmission pipeline capacity needed to make this water supply  
25 available to the PVSP. Additional focused CEQA review of this secondary initial surface water  
26 supply would also be necessary.



1 Finally, a groundwater supply is proposed as a redundant water source to back up a  
2 deficiency in the long-term water supply from the CVP during a maximum dry year reduction by  
3 the USBR. (25:7203; 37:10870; 32:9343.)

4 In *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*  
5 (2007) 40 Cal.4th 412 (“*Vineyard*”), the California Supreme Court specified the requirements for  
6 an analysis of future water supplies for a proposed project in an EIR under CEQA. The EIR must  
7 analyze the reasonably foreseeable environmental impacts of supplying water to the entire  
8 project. (*Id.* at pp. 430-431, 434.) The availability of the water supplies identified for the project  
9 must be reasonably certain; speculative sources and unrealistic allocations are insufficient. (*Id.* at  
10 p. 432.) Where “it is impossible to confidently determine that anticipated future water sources  
11 will be available,” the EIR must discuss possible replacement or alternative sources and their  
12 environmental impacts. (*Id.* at pp. 432, 434.) However, CEQA does not require assurances of  
13 certainty regarding long-term future water supplies at an early phase of planning for large land  
14 development projects; the EIR need not demonstrate that the water supplies are assured through  
15 enforceable agreements with a provider and already built or approved treatment and delivery  
16 facilities. (*Id.* at p. 432.) When uncertainty regarding the availability of sufficient future water  
17 supplies for the project remains after a sincere and good faith analysis of likely water sources, the  
18 EIR may acknowledge the uncertainty, provide a measure for the curtailment of the project if the  
19 water sources fail to materialize, analyze the environmental impacts of curtailing the project, and  
20 identify measures to mitigate any such significant impacts. (*Id.* at pp. 432, 434, 444.)

21 With respect to the long-term water supply for the PVSP, petitioners Sierra Club and  
22 Sierra Foothills Audubon Society contend that the PVSP EIR violates CEQA and *Vineyard* by  
23 evaluating the cumulative environmental impacts of the long-term water supply from the  
24 Sacramento River without evaluating the diversion’s direct and indirect impacts; by deferring  
25 environmental analysis of the construction and operation of PCWA diversion, treatment and  
26 storage facilities for the Sacramento River diversion to a joint environmental impact  
27 study/environmental impact report (“EIS/EIR”) being prepared by the PCWA and the USBR; and  
28 by failing to adequately disclose and discuss the circumstances and factors affecting the likely



1 availability of the long-term water supply from the Sacramento River. Petitioners also contend  
2 that the EIR fails to evaluate direct and indirect impacts of diverting the alternative long-term  
3 water supply from the American River and, in particular, fails to evaluate the impacts of adding  
4 35,000 afa to the existing American River diversion of 35,500 afa at ARPS in the event that the  
5 long-term water supply from the Sacramento River does not materialize.

6 With respect to the secondary initial water supply for the PVSP, petitioners contend  
7 that the EIR fails evaluate the environmental impacts of providing the supply. Petitioners also  
8 contend that the EIR fails to adequately disclose and discuss the circumstances affecting the  
9 likely availability of the secondary initial water supply for the PVSP, in particular the restrictions  
10 of the Water Forum Agreement on the diversion of the secondary initial water supply after 2012.

11 The court finds that administrative remedies were not exhausted with respect to  
12 petitioners' contentions that the EIR violated CEQA by evaluating the cumulative environmental  
13 impacts of the long-term water supply from the Sacramento River without evaluating its direct  
14 and indirect impacts and by failing to evaluate the impacts of adding 35,000 afa to the American  
15 River diversion at the ARPS instead of Folsom in the event that the long-term water supply from  
16 the Sacramento River did not materialize. The comments in the administrative record cited by  
17 petitioners to demonstrate exhaustion of these issues deal with the availability of a long-term  
18 water supply for the PVSP, not with the adequacy of the impacts analysis for the long-term water  
19 supply. (See AR 34:100073-100075; 34:9907; 34:9941-9942.) A letter submitted by counsel for  
20 petitioner Sierra Club on July 16, 2007, criticizes the EIR for deferring an analysis of the  
21 environmental consequences of developing the water diversion and treatment facilities to deliver  
22 the long-term water supply to the project from either the Sacramento River or the American  
23 River ARPS; the letter does not comment on or question the PVSP EIR's use of a cumulative  
24 analysis to evaluate the impacts of diverting the long-term water supply or the absence of an  
25 analysis of the direct or indirect impacts. (143:42896-42903.)

26 In the absence of administrative exhaustion, petitioners are deemed to have waived  
27 these contentions. (See Pub. Resources Code § 21177, subd. (a); *California Native Plant Society*  
28 *v. City of Rancho Cordova* (2009) 172 Cal.App.4th 616-619; *Central Delta Water Agency v.*



1 *State Water Resources Control Bd.* (2004) 124 Cal.App.4th 245, 273-274.) The court is without  
2 jurisdiction to consider the contentions. (*Ibid.*)

3         The court rejects petitioners' contention that the EIR failed to evaluate the  
4 environmental impacts of the secondary initial water supply, 6000 afa diverted at Folsom  
5 Reservoir by the PCWA from 29,000 afa of its American River Middle Fork Project water that it  
6 currently contracts to the SSWD. When the DEIR was released in 2004, the environmental  
7 impacts of diverting this water supply and related infrastructure were modeled and analyzed as  
8 the only interim or initial water supply available from the PCWA for the PVSP. (12:3461-3462;  
9 13:3631-3633, 3635-3638, 3667, 3671-3775, 3708-3709, 3838-3882, 14:4016-4021, 16:4573-  
10 4582.) When the RDEIR was released in 2006, the SSWD contract water became an initial water  
11 supply secondary to a new interim or initial water supply of 6000 afa diverted at the ARPS.  
12 (24:7121, 7123, 7155.) The impacts of the ARPS initial water supply were modeled and  
13 evaluated in the 2006 RDEIR with the methodology used to model and evaluate the impacts of  
14 the SSWD contract water in the 2004 DEIR, the methodology essentially disclosing the impacts  
15 of a 6,000 afa withdrawal from the American River. (13:3667; 24:7195-7196; 37:10850-10852.)  
16 The resulting impact analysis is applicable to both the SSWD contract water supply and the  
17 ARPS water supply because of the proximity between the diversions points at the ARPS and  
18 Folsom Reservoir upstream of the environmentally sensitive Lower American River. (See  
19 37:10850-10852, 10870.) Thus, the impact analysis for the initial water supply in the RDEIR on  
20 water resources, biological resources, cultural resources and recreational resources discloses the  
21 impacts of diverting 6000 afa of SSWD contract water or 6000 afa of ARPS water. (See, e.g.,  
22 24:7199; 25:7201-7203.)

23         There is no basis for petitioners' claim that the 6000 afa of SSWD contract water is  
24 an initial water supply additive to the 6000 afa of ARPS water and, therefore, the EIR was  
25 required to model the impacts of an additional diversion of 6000 afa from the American River.  
26 Throughout the EIR, the initial water supply needs of the PVSP are assumed to be 6000 afa, no  
27 more and no less. (See 13:3667; 24:7155, 7195; 37:10850, 10852.) No comment submitted on  
28 the EIR questioned that assumption, and thus, it cannot be challenged in this proceeding directly



1 or indirectly by a claim that the SSWD contract supply comprising the secondary initial supply  
2 was additive to the ARPS water comprising the initial supply.

3 The court also rejects petitioners' contention that the EIR fails to adequately disclose  
4 and discuss the circumstances affecting the likely availability of the secondary initial water  
5 supply for the PVSP in light of the restrictions of the Water Forum Agreement on the diversion  
6 of the secondary initial water supply after 2012. If the restrictions were to preclude the diversion  
7 of the secondary initial supply in any year before the availability of the long-term water supply  
8 that the initial supply became unavailable, PCWA would release an equivalent volume of water  
9 from an upstream reservoir of its Middle Fork Project to continue supplying the necessary  
10 diversion. (13:3636-3637; 24:7176.) Modeling has confirmed that these upstream releases can  
11 occur in all years without reducing available water below acceptable levels in the reservoirs due  
12 to anticipated replenishment from rainfall in subsequent years. (*Ibid.*)

13 Moreover, as respondent and real party explain, it is unlikely that the secondary  
14 initial water supply would be required to meet PVSP needs at any time before a long-term water  
15 supply from the Sacramento River or the American River became available. Developments  
16 between the release of the DEIR in 2004 and the release of the SPRRDEIR in 2007 offset  
17 circumstances that would potentially restrict or preclude the availability of the initial water  
18 supply diverted at the ARPS: potential restrictions discussed in the RDEIR on the delivery of the  
19 ARPS water to the PVSP through the limited and diminishing capacity of the Roseville pipeline  
20 system would be avoided, as discussed in the SPRRDEIR, by an alternate pipeline route upon the  
21 PCWA's completion of conveyance and treatment facilities with adequate capacity by 2011.  
22 (24:7155; 27:7966-7968; 37:10849 (Initial Surface Water Supply (2) PCWA supply via pipeline  
23 from Ophir Water Treatment Plant), 10851-10852, 10895-10897, 10934.) Thus, the PVSP EIR  
24 establishes the availability of an interim or initial water supply for the PVSP with reasonable  
25 certainty.

26 The court also rejects petitioners' contention that the PVSP EIR violates CEQA and  
27 *Vineyard* by deferring environmental analysis of the construction and operation of PCWA  
28 diversion, treatment and storage facilities for a Sacramento River diversion to a joint EIS/EIR.



1 being prepared by the PCWA and the USBR under the aegis of the SRWRS and the Sacramento  
2 Area Water Forum Agreement. The EIR explains that the omission of that environmental  
3 analysis reflects the fact that, at the time the RDEIR was published, there was a lack of  
4 meaningful information to include in the RDEIR and the facilities were being separately  
5 evaluated in parallel fashion. (23:6895; 37:10855.) Indeed, that environmental analysis was and  
6 is outside the scope of the PVSP EIR: the proper scope of the EIR analysis is the reasonably  
7 foreseeable impacts associated with the diversion or withdrawal of water from the Sacramento  
8 River for the purpose of supplying water to the PVSP, not the impacts associated with the  
9 development of the diversion facilities whose likelihood of being approved may affect the likely  
10 availability of the water supply. Unlike the sewer expansion in *San Joaquin Raptor/Wildlife*  
11 *Rescue Center* (1994) 27 Cal.App.4th 713, the water delivery equipment in *Santiago County*  
12 *Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, and the water delivery  
13 infrastructure which is specific to the PVSP development and is analyzed in the EIR (24:6903;  
14 34:10178), the study and proposed development of the Sacramento diversion facilities were  
15 motivated by the regionwide planning activities and agreements of Water Forum; the long-term  
16 water needs of the PVSP development may have been taken into consideration in the planning  
17 activities and agreements, but the study and proposed development of the Sacramento diversion  
18 facilities were not triggered by and are not part of the PVSP development.

19 As a practical matter, respondent County has no control over the study, design and  
20 development of the Sacramento diversion facilities which are the responsibility of the PCWA  
21 and the USBR. Until the PCWA and the USBR release information about the design and  
22 potential development of the facilities, respondent County lacks information about the facilities  
23 to disclose and analyze in the EIR. When the information does become available, its inclusion,  
24 discussion and analysis in the EIR is appropriate, as occurred with respect to the information  
25 about the diversion alternatives published in the SRWRS Initial Alternatives Report. (37:10859-  
26 10868.)

27 Lastly, the court rejects petitioners' contention that the PVSP EIR violates CEQA  
28 and *Vineyard* by failing to adequately disclose and discuss the circumstances and factors



1 affecting the likely availability of the long-term water supply from the Sacramento River. In  
2 accordance with the principles announced by the California Supreme Court in *Vineyard*, the EIR  
3 identifies alternative sources of long-term and interim water supplies for the PVSP, carefully  
4 identifies and considers the legal and practical uncertainties surrounding each source, and hones  
5 the selection of sources to increase the likely availability of water supplies for the PVSP (as in  
6 the case of the initial ARPS water whose transmission route through the Roseville pipeline is  
7 being reconsidered in light of PCWA's development of a new pipeline system). (37:10855-  
8 10860.) The EIR concludes that the supplies are reasonably certain to be available to the PVSP  
9 because they are premised on the PCWA's established water rights, are grounded in the regional  
10 planning activities and agreements of the Sacramento Area Water Forum, have the direct  
11 involvement of the USBR with congressional support, and are environmentally benign.  
12 (37:10855-10859.) Nonetheless, the EIR acknowledges the multiple regulatory requirements the  
13 long-term water supply from the Sacramento River diversion must satisfy in becoming  
14 operational and the unforeseen circumstances that may interfere with the ultimate availability of  
15 the supplies. To deal with such contingencies, the EIR identifies Mitigation Measures 4.11.7-1a  
16 and 4.11.7-1c, which provide for the curtailment of PVSP development should a water source  
17 fail to materialize, and analyzes the effects of curtailment. (37:10887-10893, 10934.) This  
18 analysis of reasonable certainty is supported by substantial evidence.

#### 19 Open Space

20 The PVSP area contains 4,251 acres of existing open space that may be converted to  
21 urban uses under the Placer County General Plan. Development of the PVSP would result in the  
22 conversion of approximately 3,520 acres of this open space to urban uses, and approximately 714  
23 acres of the PVSP area would remain designated as open space pursuant to an Avoidance and  
24 Open Space Plan. In accordance with PVSP goals and policies, these 714 acres would form an  
25 interconnected system or network that includes protected wildlife corridors, floodways, protected  
26 woodland areas, lakes, protected sensitive habitat area (i.e., wetlands and habitat for rare,  
27 threatened or endangered species), and greenways for trail development.



1           The EIR sets forth a mitigation program intended to simultaneously mitigate the  
2           significant impacts of PVSP development on open space as well as agricultural lands and  
3           biological resources. The program seeks to strike a reasonable balance between on-site  
4           avoidance and off-site preservation and restoration of these resources while providing strategies  
5           consistent with those likely to be included in a Placer County Conservation Plan ("PCCP") for  
6           Western Placer County.<sup>2</sup> Thus, the mitigation program sets forth standards for the amount of  
7           preservation or restoration that must occur for each acre of habitat lost to PVSP development:  
8           Mitigation Measure 4.4-1 provides detailed requirements for the preservation of one acre of open  
9           space in Placer County for each acre of open space and agricultural lands lost within the PVSP  
10          area. The preservation would be established in core preserves of approximately 1000 acres or in  
11          200 acre additions to existing preserves of at least 1000 acres. Potential mitigation sites that are  
12          designated for open space and agricultural uses in Placer County and which contain valuable  
13          existing habitat have been identified and are being acquired by the Placer Vineyards property  
14          owners to implement this mitigation measure.

15                 Petitioners Sierra Club and Sierra Foothills Audubon Society contend that the  
16          description of the 714 acres as natural open space is inaccurate and a misleading description of  
17          the physical environment in violation of CIA's informational requirements. Relying on  
18          comments by the California Department of Fish and Game on the PVSP EIR, petitioners indicate  
19          that, upon development of the PVSP, the 714 acres would be fragmented into isolated areas  
20          surrounded by incompatible urban uses and would lose their value as natural undeveloped habitat  
21          for wildlife. Thus, petitioners conclude, the EIR's description of the habitat adversely impacted  
22          by PVSP development should have included the 714 acres along with the 3,520 acres converted  
23          to urban uses. By failing to include the 714 acres as lost habitat, the EIR understated the total  
24          impacted habitat and failed to provide appropriate mitigation for the impacts to the 714 acres  
25          under Mitigation Measure 4.4-1.

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26                 <sup>2</sup> At the time of EIR preparation and certification, the county and state and federal wildlife  
27          agencies were drafting the PCCP pursuant to the California Natural Community Conservation Planning  
28          Act and the federal Endangered Species Act to avoid and/or resolve potential conflicts between the  
        conservation of threatened and endangered species and otherwise lawful urban development activities in  
        Placer County.



1 Contrary to petitioners' contention, the EIR did not violate CIA's informational  
2 requirements in describing 714 acres within the PVSP as open space with continuing habitat  
3 value rather than as lost habitat. The EIR recognizes that PVSP development would urbanize the  
4 PVSP site and fragment the large mosaic of habitats that occur on-site and in the surrounding  
5 area, thereby diminish the habitat value of the 714 acres of open space, and produce a significant  
6 and unavoidable impact on existing open space. (25:7375, 7378; 39:11426.) The remaining  
7 habitat value of the 714 acres would be preserved pursuant to the PVSP Avoidance and Open  
8 Space Plan as an interconnected system with naturally occurring wetland/swale corridors  
9 providing connectivity of waters and watersheds and avoiding the isolation of wetlands.  
10 (39:11421.) The potential adverse effects of PVSP development would be minimized through  
11 measures to protect the preserved corridors from human disturbances through a Open Space  
12 Mitigation and Management Plan required pursuant to Mitigation Measure 4.4-1e. (*Ibid.*;  
13 39:11426-11427.) As evidenced by various studies and observations documenting the  
14 prevalence of plant and wildlife in urban open areas in the region, the preserved corridors could  
15 and would provide habitat for a variety of plant and wildlife species, including species having  
16 special status under the state and federal Endangered Species Acts. (39:11427-11428.) This  
17 discussion in the EIR constitutes substantial evidence that the 714 acres of open space would  
18 considerably lessen the significant impacts on open space in the PVSP area, although not to a  
19 level of insignificance. (*Ibid.*)

#### 20 Vernal Pools

21 The PVSP EIR reports on the basis of field studies that the 3,520 acres of open space  
22 converted by PVSP development would include 69 acres of vernal pool habitat consisting of  
23 vernal pools, seasonal depressional wetlands, seasonal swales and drainage swales. To mitigate  
24 the significant impact to the vernal pool habitat, Mitigation Measure 4.4-1b requires two acres of  
25 vernal pool habitat to be preserved, restored or recreated for each acre of vernal pool habit lost to  
26 PVSP development. Restoration pursuant to this mitigation measure must construct vernal pools  
27 at densities within the range of historical levels identified on 1937 aerial photos or other valid  
28 historical evidence. To maintain the value of the vernal pools, the restoration or recreation of



1 vernal pool habitat must include adequate upland grasslands. Consistent with a holistic  
2 watershed-level and comprehensive ecosystem approach that minimizes fragmentation and  
3 indirect impacts and disturbances from activities on adjacent lands, the mitigation measure  
4 provides for the acquisition of large parcels that encompass intact watersheds and comprehensive  
5 ecosystems involving a variety of aquatic habitats and their surrounding uplands.

6 A Final Recovery Plan for the Vernal Pool Ecosystems of California and Southern  
7 Oregon, prepared and approved by the U.S. Fish and Wildlife Service in 2005, identifies Western  
8 Placer County as a core area within the Southeastern Sacramento Vernal Pool Region. The  
9 Recovery Plan designates the Western Placer County core area as a "priority 2" recovery area  
10 with a recommendation for the protection of 85 percent of the suitable vernal pool habitat within  
11 the core area. The FEIR analyzes a project alternative retaining 85 percent of the vernal pool  
12 resource that would be impacted by PVSP development -- approximately 2,182 acres of all  
13 identified vernal pool complexes with 250-foot buffers -- and concludes that this 85 percent  
14 alternative would not achieve most project objectives and would be inconsistent with the Placer  
15 County General Plan designating the PVSP area for development.

16 Petitioners Sierra Club and Sierra Foothills Audubon Society contend that the PVSP  
17 inaccurately describes the existing vernal pool resource and understates the resource acreage by  
18 limiting the scope of vernal pools to wetted acres and omitting the upland grasslands which are  
19 ecologically connected to the pools by swales or drainages and constitute an essential component  
20 of the pools. Petitioners reference surveys, conducted in conjunction with the drafting of the  
21 PCCP, that identify 2,233 acres of vernal pool grasslands on the PVSP site in contrast to the 69  
22 acres of vernal pools identified in the EIR. Petitioners conclude that this substantial  
23 understatement of vernal pool acreage skews the EIR's description of baseline environmental  
24 conditions and results in an understatement of the PVSP's substantial impact on vernal pools and  
25 the mitigation needed to reduce the impacts; the provision in Mitigation Measure 4.4-1b,  
26 requiring the restoration of vernal pool habitat to include adequate upland grasslands, is vague  
27 and lacks any quantification of grassland acreage in the EIR to guide its implementation.  
28 Similarly, petitioners conclude that the EIR failed to quantify the acreage of "core area" vernal



1 pool habitat impacted by the PVSP or analyze the significance of the impacts from a regional  
2 perspective consistent with the Final Recovery Plan for the Vernal Pool Ecosystems of California  
3 and Southern Oregon.

4 The EIR did not inaccurately describe the environmental setting of the PVSP by  
5 defining and quantifying vernal pool habitat as wetted acreage without quantifying associated  
6 upland grasslands. Nor did the lack of grassland quantification skew the analysis of PVSP  
7 impacts on vernal pools and the mitigation required for the restoration of the pools. Rather the  
8 EIR recognizes pursuant to Mitigation Measure 4.4-1b that upland grasslands are an essential  
9 part of the vernal pool ecosystem and requires the restoration of vernal pool habitat to include  
10 adequate upland grasslands. (25:7381.) For purposes of 4.4-1b, restoration involves the  
11 construction of vernal pools at densities within the range of historical levels as identified on the  
12 1937 aerial photos or other valid historical evidence. (*Ibid.*) As explained in the FEIR, such  
13 restoration is the reestablishment of prior-existing naturally-occurring wetlands in their  
14 approximate prior-existing distribution with microtopography and hydrology appropriate to the  
15 formation of vernal pools and other seasonal wetlands. (34:10104.) Thus, quantification of  
16 grasslands associated with vernal pools on the PVSP site is unnecessary to an accurate  
17 description of the environmental setting, the analysis of PVSP impacts on the vernal pools, and  
18 the restoration of the impacted vernal pools with adequate grasslands under Mitigation Measure  
19 4.4-1b.

20 With respect to the Final Recovery Plan, the EIR accurately describes the Plan's  
21 characterization of Western Placer County, including the PVSP site, as a core, priority 2 recovery  
22 area with a recommendation for the protection of 85 percent of suitable vernal pool habitat in the  
23 area. (25:7294-7295.) The FEIR considers this recommendation by examining a project  
24 alternative to the PVSP that preserved 85 percent of the vernal pool habitat on the PVSP site,  
25 determined that the alternative was inconsistent with most PVSP development objectives and the  
26 Placer County General Plan designation of the PVSP for urban uses, and reasonably concluded  
27 that the alternative is infeasible. (34:10144-10146; 35:10329.) This consideration of an  
28



1 alternative based on the Final Recovery Plan satisfies CEQA requirements for consideration of  
2 the Plan's recommendations.

3 Traffic

4 The PVSP EIR analyzes the traffic impacts of the project on five jurisdictions in the  
5 area: Placer County, City of Roseville, Sacramento County, Sutter County and Caltrans. The  
6 RDEIR discloses that the project would generate approximately 192,788 vehicle trips of which  
7 40,500 would remain within the PVSP area and 152,300 would travel to and from external  
8 destinations. These figures are updated and increased approximately 1.5 percent in the  
9 SPRRDEIR to 195,246 trips generated by the project.

10 Petitioners Collins and Williams contend that the EIR does not adequately analyze  
11 and mitigate the PVSP's traffic impacts in a number of ways. In particular, relying on comments  
12 submitted by Caltrans and their expert Daniel Smith, petitioners contend that the Placer County  
13 Travel Demand Model used to analyze the traffic impacts is flawed and inadequate because it  
14 does not realistically reflect employment trip locations on primary access routes, including the  
15 state highways; it shows reduced traffic on some segments and only small increases on other  
16 segments of I-80 and Hwy. 70/99; it excessively re-pairs tripmakers to new destinations to an  
17 extent beyond the adjustments people with established trip patterns are likely to make; and it  
18 displaces and diverts non-project traffic away from the project area. (34:10014; 35:10241,  
19 10248-10249, 10259;38:11378-11381.)

20 As explained in the EIR, the Placer County Travel Demand Model is not designed to  
21 layer or add the amount of traffic that would be generated by the PVS onto existing travel counts  
22 and patterns. Rather, the model, which was revalidated in 2004 prior to its use in evaluating  
23 PVSP's traffic impacts, uses a trip distribution mechanism, based on SACOG's regional travel  
24 demand model SACMET, to predict how travel patterns would change when the PVSP land uses  
25 are added: it assumes other drivers will take different routes with PVSP improvements in place  
26 and redistributes trips, causing traffic on some roadways to decrease, offsetting PVSP traffic, and  
27 changing traffic movements at intersections. (26:7705; 35:10247-10249; 39:11406-11407.)  
28 Thus, the EIR explains the reasonable assumptions and programming on which the Placer



1 County Travel Demand Model is based. Petitioners and their expert fail to establish that the  
2 model is flawed.

3 Next, relying on the comments of Mr. Smith, petitioners contend that the traffic study  
4 for the PVSP was deficient in analyzing the project's impacts on road segments and intersections  
5 in Roseville in the PM peak hour but not in the AM peak hour, as it did in Sacramento, Sutter  
6 and Placer Counties and at state highway intersections. (34:9950-9951; 38:11376.) In response,  
7 the EIR explained that the PVSP's impacts at intersections in Roseville were analyzed only  
8 during PM peak hours on the basis of Roseville's policies and preferences which did not require  
9 an analysis of AM peak hour impacts. This same approach was used in each of the jurisdictions  
10 where the PVSP would increase peak hour traffic volumes; the policies and preferences of each  
11 jurisdiction were selected as thresholds of significance for the traffic analysis in that jurisdiction.  
12 Respondent was acting within its discretion in following this approach for the selection of  
13 thresholds of significance. (26:7636, 7685, 7736. See *Mira Mar Mobile Community v. City of*  
14 *Oceanside* (2004) 119 Cal.App.4th 477, 493.)

15 Petitioners' other claims related to the EIR's analysis of project traffic impacts lack  
16 merit. Contrary to petitioners' contention, the amendment of Policies 3.A.7, 3.A.3, and 3.A.12 of  
17 the Traffic and Circulation Element of the Placer County General Plan by the Board of  
18 Supervisors along with similar amendments of Community Plan Policy 9 and PVSP Policy 5.1  
19 did not, as petitioners contend, change the level of service ("LOS") policies in these plans and  
20 was not a blanket degradation of County LOS standards; the amendments merely incorporated  
21 procedures for establishing exceptions to the LOS on a case by case basis. Also contrary to  
22 petitioners' contention, the EIR uses an appropriate threshold of significance for traffic delays at  
23 unsignalized rural intersections based on methodology from the Transportation Research Board's  
24 Highway Capacity Manual; in any event, petitioners' contention is essentially moot because the  
25 one intersection to which the significance threshold applies is scheduled for the installation of a  
26 signal. (26:7636; 34:10010; 39:11403.) And contrary to petitioners' contention, the EIR  
27 provides an effective enforceable mitigation measure for the PVSP's traffic impacts in  
28 Sacramento County; Mitigation Measure 4.7-2a requires project applicants to pay their fair share



1 toward improvements in Sacramento County needed to alleviate project traffic impacts and  
2 requires the County to undertake efforts to establish an enforceable agreement with Sacramento  
3 County to ensure appropriate. (See 26:7690-7691, 7677. See *Anderson First Coalition v. City of*  
4 *Anderson* (2005) 130 Cal.App.4th 1173.)

5 Blueprint Alternative

6 The RDEIR released in April 2006 evaluated the environmental impacts of both the  
7 PVSP and the Placer Vineyards Blueprint Specific Plan ("Blueprint Alternative"), an alternative  
8 plan based on the Preferred Blueprint Scenario adopted by the Sacramento Area Council of  
9 Governments ("SACOG") in 2004 to guide land use and transportation development that will  
10 accommodate population growth in the Sacramento region over the next 50 years. (7:1869ff.;  
11 23:6873-6874; 24:6984ff.; 28:8292-8306.) To limit urban sprawl, reduce the number and length  
12 of vehicular transportation, facilitate public transit and conserve natural resources, the Preferred  
13 Blueprint Scenario proposes a compact, mixed-use development pattern for the region with a  
14 balance of employment, residential, shopping and recreational uses linked to transportation  
15 improvements. (*Ibid.*)

16 The Blueprint Alternative proposes a 53 percent increase in residential development  
17 over the PVSP. (28: 8294.) Specifically, the Blueprint Alternative proposes the development of  
18 21,631 residential units at low, medium and high densities substantially greater than the low,  
19 medium and high densities proposed by the PVSP for the development of 14,132 residential  
20 units. (28:8294-8295.) The Blueprint Alternative proposes this residential development for an  
21 anticipated population of approximately 50,000 at buildout, a process extending over a 20- to 30-  
22 year period. (28:8299.) In comparison, the PVSP anticipates a population of approximately  
23 33,000 at buildout. (*Ibid.*) To serve the increased population in the Blueprint Alternative, the  
24 PVSP acreage for commercial uses, schools, parks, and religious facilities would also increase.  
25 (28:8295-8298.)

26 In certifying the EIR, the Board found that the Blueprint Alternative was  
27 environmentally inferior to the PVSP and infeasible because it would have more significant  
28 environmental impacts than the PVSP in eight of the twelve categories of environmental impacts



1 analyzed in the EIR. (2:598; 3:625; 28:8435-8436.) By increasing the density of development  
2 and therefore the number of structures and residents, the Blueprint Alternative would increase  
3 impacts in visual quality and aesthetics; hydrology, water resources and water quality;  
4 archaeological/paleontological resources; transportation and circulation; air quality; noise; public  
5 services/infrastructure; and land use and planning policies. (*Ibid.*) Other impacts of the  
6 Blueprint Alternative would be the same as those of the PVSP. (*Ibid.*)

7         The EIR and the Board's findings recognize that, to the extent the higher population  
8 and densities of the Blueprint Alternative would reduce population growth and development and  
9 their attendant environmental impacts elsewhere in the Sacramento region over time, it would  
10 regionally conserve open space and other natural resources while decreasing vehicle miles  
11 traveled, traffic congestion and air pollution in the long-term. (3:625; 24:7017-7018; 28:8351,  
12 8436.) However, the Blueprint Alternative does not have a mechanism for ensuring that these  
13 regional environmental benefits would materialize: respondent County cannot control the land  
14 use decisions in surrounding jurisdictions such as Roseville, Lincoln, Rocklin, Sutter and  
15 Sacramento and thus cannot guarantee that such decisions on pending development projects  
16 would be compatible with the SACOG Preferred Blueprint Scenario and the Blueprint  
17 Alternative. (3:625; 24:7017-7018; 28:8436; 139:41617.) Absent such control, surrounding  
18 jurisdictions would not be required to refrain from approving residential development in areas  
19 inconsistent Preferred Blueprint Scenario. (*Ibid.*)

20         Relying on comments by SACOG, petitioners Collins and Williams contend that  
21 respondent was required to approve the Blueprint Alternative instead of the PVSP because the  
22 Blueprint Alternative would result in less air pollution, greenhouse gas emissions, traffic  
23 congestion, and water consumption per capita. Petitioners examine the evidentiary bases of each  
24 impact analysis in the EIR and conclude that no substantial evidence supports a finding that the  
25 Blueprint Alternative is environmentally inferior to the PVSP or infeasible. Rather, they  
26 conclude that the environmental effects of the Blueprint Alternative and the PVSP would be the  
27 same but that there would be greater environmental impacts associated with the PVSP; the  
28 Blueprint Alternative would be the environmentally superior and feasible alternative; and



1 respondent could not properly approve the PVSP under CEQA while rejecting the feasible  
2 alternative presented by the Blueprint Alternative. (Collins' Opening Brief, p. 30:5-11; Collins'  
3 Reply Brief, pp.12:24 -- 13:3, citing *Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d  
4 30, 41.)

5 A review of the evidentiary basis of respondent's findings regarding the impacts of  
6 the PVSP and the Blueprint Alternative indicate that the findings are supported by substantial  
7 evidence in the administrative record, even though there may be substantial evidence to support  
8 petitioners' contrary view. In particular, there is substantial evidence and logic to support  
9 respondent's finding and policy concern that the potential environmental benefits of the  
10 Blueprint Alternative are uncertain and dependent on compliance by the jurisdictions in the  
11 region to make land use planning decisions consistent with SACOG's Preferred Blueprint and  
12 the Blueprint Alternative, circumstances beyond respondent's control. In these circumstances,  
13 the court must sustain respondent's findings and defer to its legislative discretion in approving  
14 the PVSP<sup>3</sup>. (*Laurel Heights Improvement Assn. v. City of Los Angeles* (1988)47 Cal.3d 376,  
15 393.)

#### 16 Greenhouse Gas Emissions

17 The SPRRDEIR released in March 2007 added a section to the RDEIR that analyzes  
18 the greenhouse gas emissions ("GHGs") generated by the PVSP and the Blueprint Alternative  
19 and the impact of these emissions on global climate change. (37:10837, 10971-10998.) This  
20 section was added in response to the enactment of the California Global Warming Solutions Act  
21 in 2006, providing for the reporting and reduction of GHGs in California. (37:10837-10838. See  
22 Stats. 2006, ch. 488 ("A.B. 32").)

23 In the absence of any identified significance threshold for GHGs or any recognized  
24 methodology for analyzing air quality impacts related to GHGs, the GHGs analysis uses a  
25 descriptive rather than a quantitative significance criterion that considers a project's incremental  
26

27  
28 <sup>3</sup> Unencumbered by the parameters of this lawsuit and the requirements of the law, the court recognizes that there are strong public policy arguments supporting the Blueprint Alternative.



1 contribution to global climate change to be significant if, due to the project's size or nature, it  
2 would generate a substantial increase in GHGs relative to existing conditions. (38:10981.)

3 The SPRRDEIR estimates GHGs for the PVSP and the Blueprint Alternative using  
4 carbon dioxide (CO<sub>2</sub>) emissions as a proxy for all GHGs. (37:10981.) Lacking detailed  
5 information about the type and amount of commercial operations and residential units to be  
6 ultimately developed in the Placer Vineyards project area, the analysis initially uses traffic study  
7 data to calculate the average vehicle miles likely to be generated annually by the PVSP and by  
8 the Blueprint Alternative at buildout, assumes a vehicle emissions factor of 366 grams per mile  
9 for future CO<sub>2</sub> published by the California Air Resources Board, and determines that the project-  
10 generated vehicle trips would emit 213,000 tons of CO<sub>2</sub> annually for the PVSP and 621,000 tons  
11 of CO<sub>2</sub> annually for the Blueprint Alternative. (37:10981-10983.) The analysis then assumes  
12 that the proportion of these annual tonnages of CO<sub>2</sub> emissions to the total CO<sub>2</sub> emitted by the  
13 PVSP and by the Blueprint Alternative are similar to the proportion of CO<sub>2</sub> emitted by the  
14 transportation sector statewide to the total CO<sub>2</sub> emitted by all sectors statewide. Applying this  
15 assumption, the analysis determines that the PVSP would emit approximately 523,000 tons of  
16 CO<sub>2</sub> annually and the Blueprint Alternative would emit 523,000 tons of CO<sub>2</sub> per year.

17 The SPRRDEIR indicates that these estimated CO<sub>2</sub> emissions are very general and  
18 may be high for a number of reasons. In addition to lacking detailed information about the type  
19 and amount of commercial operations and residential units at buildout, the estimates do not take  
20 into account that many of the project residents and businesses emitting CO<sub>2</sub> would be moving  
21 from an existing location to the project site and were not new emission sources contributing to a  
22 change in overall global GHGs and global climate change. (37:10982-10983.) Additionally, the  
23 estimates do not take into account the reductions in GHGs potentially resulting from the  
24 implementation of reduction requirements for stationary sources of CO<sub>2</sub> emissions pursuant to  
25 A.B. 32 and reduction requirements for vehicular GHG emissions under legislation enacted in  
26 2002. (Stats. 2002, ch. 200 ("A.B. 1493").) (37:10983-10984.)

27 Despite this uncertainty regarding the actual amount of CO<sub>2</sub> that the PVSP or  
28 Blueprint Alternative would emit, and notwithstanding the impossibility of determining how CO<sub>2</sub>



1 emissions attributable to the Placer Vineyards project may or may not physically impact global  
2 climate change, the SPRRDEIR concludes that the project would potentially make a  
3 cumulatively considerable incremental contribution to global climate change and that this  
4 contribution to global climate change would be significant and unavoidable. (37:10985-10987.)  
5 This conclusion is based on the very large size of the project and its potential emission of  
6 substantial amounts of CO<sub>2</sub> and other GHGs at much higher volumes than most other types of  
7 development at either a local or regional level. (37:10985.)

8 The measures proposed in the SPRRDEIR for the mitigation of the project's  
9 cumulatively considerable incremental contribution to global climate change mirror the "smart  
10 growth" principles directing the design of the project as a compact development promoting non-  
11 vehicular modes of transportation, decreasing travel distances between employment and housing,  
12 and promoting alternative low-emission energy sources. (37:10986-10987.) The SPRRDEIR  
13 incorporates measures to reduce the generation of air pollutants and energy consumption by  
14 residential and nonresidential development, promote bicycle and transit usage, encourage energy-  
15 saving design and operation of school facilities, prohibit open burning, mitigate traffic impacts,  
16 and encourage alternative fuel vehicles. (37:10987-10988.)

17 Petitioners Collins and Williams contend that the SPRRDEIR incorrectly calculates  
18 potential GHG emissions by the PVSP and by the Blueprint Alternative and erroneously  
19 concludes that the PVSP would generate more GHGs than the Blueprint Plan. Referencing  
20 comments by SACOG (38:11272-11302) and the Center for Biological Diversity (38:11307-  
21 11309), petitioners indicate that the SPRRDEIR fails to properly calculate the GHGs from  
22 stationary non-vehicular sources, fails to consider differences in vehicular GHGs produced by  
23 differences in vehicle speed and reduced-speed traffic conditions created by the PVSP, and fails  
24 to include GHGs from project construction. Petitioners further contend that the SPRRDEIR fails  
25 to properly analyze the cumulative impacts of project GHGs in combination with GHGs emitted  
26 by other present and foreseeable developments in the region.

27 In the absence of an accepted methodology for calculating GHGs emitted by a  
28 proposed project, in light of the reasoned explanation given in the SPRRDEIR for the



1 methodology used to calculate the GHGs for the PVSP and Blueprint Alternative, and given the  
2 SPRRDEIR's conclusion that the GHGs would be significant and unavoidable, the court finds no  
3 error in the GHG calculations.

4 The lack of separate calculations of CO<sub>2</sub> emissions from stationary non-vehicular  
5 project sources is not improper. Without detailed information about the type and amount of  
6 commercial operations and residential units to be ultimately developed in the project area, the  
7 calculations would likely be speculative. (38:11305, 11310-11311, 11313.) Further, a  
8 reasonable basis exists for assuming that the proportion of CO<sub>2</sub> emissions emitted by building  
9 operations and other non-transportation PVSP sources would be roughly proportional to the  
10 emissions tracked by the State of California: the majority of the project's electricity would come  
11 from the same grid as the rest of the state, and the project's ratio of non-mobile to mobile-source  
12 emissions from other pollutants such as ozone precursors is in line with other similar projects.  
13 (*Ibid.*)

14 The calculations do not fail to consider differences in vehicular GHGs produced by  
15 differences in vehicle speed: the CO<sub>2</sub> emission factor used to quantify GHG emissions from  
16 vehicle trips in grams per mile is based upon average vehicle fuel economy set by the Corporate  
17 Average Fuel Economy (CAFE) standards and includes assumptions that different vehicles  
18 would reach optimum performance/efficiency at different speeds. (38:11305.)

19 With respect to GHGs from construction vehicles and machinery, the SPRRDEIR  
20 reasonably addresses the matter in the course of responding to a comment by the Center for  
21 Biological Diversity, that the EIR had not conducted an adequate inventory of GHGs associated  
22 with the project from such sources and activities as construction vehicles and machinery and the  
23 manufacture/transport of building materials. (38:11308.) The SPRRDEIR explains that the  
24 calculation of GHGs from these activities would involve a good deal of speculation due to the  
25 unavailability of relevant information about the activities; then notes that the quantities of GHGs  
26 from some the activities would be relatively minor compared to operational emissions from the  
27 project because the lifetime of the project is an order of magnitude larger than the duration of  
28 construction of the project; and observes that the importance of the requested inventory was of




1 limited importance in light of the conclusion in the SPRRDEIR that, even with all feasible  
2 mitigation, GHGs would be significant and unavoidable. (38:11310-11312.) "It is inconceivable  
3 that, even with the kind of (speculative) analysis demanded by the commenter, this bottom line  
4 conclusion would change." (38:11312.) Petitioners have not submitted any evidence to indicate  
5 that the bottom line conclusion would change or that other mitigation could be identified and  
6 required by additional analysis.

7 Lastly, the SPRRDEIR correctly analyzes the cumulative impacts of project GHGs.  
8 Unlike air pollutants whose cumulative impacts are assessed in combination with other past,  
9 present and future projects in an air basin or region, climate change is effected by GHGs from  
10 human sources across the planet; (37:10972, 10981-10982); contrary to petitioners' contention,  
11 the relevant geographic area for an analysis of the project's cumulative impacts under CEQA  
12 Guidelines 15130 and 15355 is the globe, not Yuba and Placer Counties on which the SACOG  
13 analysis focused. (38:11279-11281, 11286-11287.) And it would appear that the contribution of  
14 either the PVSP or the Blueprint Alternative to climate change would be cumulatively  
15 considerable under the significance criteria set forth in the SPRRDEIR: the project "would  
16 generate a substantial increase in GHG emissions relative to existing conditions." (37:10980-  
17 10981, 10984-10985.)

18 The petitions are denied. Counsel for real party in interest shall prepare a proposed  
19 judgment, serve it on all parties for approval as to form, and submit it to this court for signature  
20 and entry pursuant to rule 3.1312 of the California Rules of Court.

21 Dated: Oct 27 / 2009

22   
23 LLOYD G. CONNELLY  
24 Judge of the Superior Court  
25  
26  
27  
28



**SUPERIOR COURT OF CALIFORNIA  
COUNTY OF SACRAMENTO**

---

**COUNTY OF SUTTER, a political  
Subdivision of the State of California**

**Case Number:  
34-2007-00883516**

**Petitioners,**

**COUNTY OF PLACER, a political  
Subdivision of the State of California**

**CERTIFICATE OF SERVICE  
BY MAILING (C.C.P. Sec. 1013a(4))**

**Respondents.**

---

**PLACER VINEYARDS PROPERTY  
OWNERS GROUP, et. al.,**

**Real Parties in Interest.**

---

**ROB COLLINS and MICHAEL WILLIAMS,**

**Petitioners,**

**vs.**

**COUNTY OF PLACER, et. al.,**

**Respondents.**

---

**CARMEN DOYLE, CO-TRUSTEE, et. al.**

**Real Parties in Interest.**

---

I, the Clerk of the Superior Court of California, County of Sacramento, certify that I am not a party to this cause, and on the date shown below I served the foregoing **RULING ON SUBMITTED MATTER** by depositing true copies thereof, enclosed in separate, sealed envelopes with the postage fully prepaid, in the United States Mail at



720 9<sup>th</sup> Street, Sacramento, California, each of which envelopes was addressed respectively to the persons and addresses shown below:

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Neasham & Kramer, LLP  
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Gold River, CA 95670

I, the undersigned Deputy Clerk, declare under penalty of perjury that the foregoing is true and correct.

SUPERIOR COURT OF CALIFORNIA  
COUNTY OF SACRAMENTO

Dated: October 26, 2009

By: L.M. SWEEZER,  
Deputy Clerk



## Attachment 5





## SMITH ENGINEERING &amp; MANAGEMENT

August 18, 2009

Mr. Tod Herman  
Nevada County Community Development Agency  
950 Maidu Avenue  
Nevada City, CA 95959-8617

**Subject: Higgins Marketplace (SCH# 2005022022)**

P09005

Dear Mr. Herman:

I am retained by concerned citizens to review the Final Environmental Impact Report (hereinafter "the FEIR") and its supporting documentation for the proposed Higgins Marketplace Project (hereinafter "the Project") in the Nevada County (hereinafter "the County") and have previously commented on traffic aspects in this matter. My qualifications to offer these comments include registration as both a Civil and Traffic Engineer in California and 40 years professional consulting practice in these fields. I have both prepared and reviewed and commented on the traffic and circulation components of numerous environmental impact documents under the California Environmental Quality Act (hereinafter "CEQA"). My professional resume has been attached to prior correspondence. My comments follow.

**The FEIR Traffic Analysis Continues To Rely On an Understated Estimate of Project Traffic**

Our prior correspondence pointed out that the trip generation for a portion of the Project has been estimated on the basis that it would be comprised of general retail uses appropriately evaluated under the land use category entitled "Shopping Center" in the trip generation reference source relied upon by the County's traffic consultant, a category that has a higher trip generation rate than the "specialty retail" category employed by the County's traffic consultant.

In responding on this issue, the County's traffic consultant, the applicant's traffic consultant, and, ultimately, County staff all base their conclusions on the assumption that portions of the site *might potentially be occupied* by uses reasonably characterized as "specialty retail" which clearly does have a lower trip generation rate than the "shopping center" use. However, uses of the site are not limited to those which fall into the category of "specialty retail" and could be occupied by any general retail use. In that circumstance, the good faith effort to disclose impact demanded by CEQA would require that the portions of the Project that have been evaluated at the "specialty retail" trip generation rate be evaluated at the "shopping center" trip generation rate that is more all-embracing of the potential uses of the

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5311 Lowry Road, Union City, CA 94587 tel: 510.489.9477 fax: 510.489.9478



site (and higher than the "specialty retail" rate). Hence, the County's analysis fails the test of good faith effort to disclose impact.

We also note that, although the applicants traffic consultant observes that the County's traffic consultant has assumed a lower percentage of the Project's traffic would be attracted from existing passers-by than the maximum rates cited in an authoritative reference source, thereby implying that the overall traffic estimated for the Project is conservatively high, such a conclusion would be improper. The diverted passerby rates assumed by the County's traffic consultant reasonably reflect the rural location of this Project. Most of the maximum attracted passerby rates in the source reference reflect uses in dense urban and suburban areas where high volumes of traffic can sustain high rates of attraction of passerby traffic. At rural sites, those rates imply unrealistically high frequency of visits by regular passers-by.

**The FEIR Assumption That Planned Changes In Combie Road Would Preclude Project Traffic Impacts Is Speculative**

With regard to Impact 4.2.2, the FEIR assumes that planned widening of the segment of Combie Road between Higgins Road and SR 49 to 5 lanes with a raised median by 2011 would preclude Project traffic impacts on this segment. However, this assumption is highly speculative because, although the County does have the authority to impose access restrictions, its likelihood of doing so to the existing developed uses on this segment by 2011 is highly speculative, especially considering that the uses include a fire station.

**The FEIR Response Is Dismissive Of Valid Concerns For Queuing Impacts on Two Approaches at the Intersection of Combie Road and SR 42 As Expressed By Caltrans and By Smith Engineering & Management**

Regarding the queuing and operational issue on the Combie approach that we previously identified, the County's traffic consultant admits there would be occasional blockages of the right lane, but concludes that would somehow be OK and that signage could somehow persuade knowledgeable peak hour travelers to drive in a way that conforms to the optimal theoretical functioning of the intersection instead of to their own individual advantage. In the case of the queuing issue raised by Caltrans, the response is to observe that the Highway Design Manual section cited by Caltrans is a guideline, not a standard, to observe that long range queue predictions may not be rigorously reliable, and to conclude that the vastly exceeded guideline can be dismissed. A second guideline from the Highway Design Manual, that regarding deceleration distance, is not addressed at all.

What the County is really doing in this case is disclosing impacts that are actually significant but instead of making findings of overriding considerations if it wishes to approve the Project and concludes the mitigations are infeasible for the Project to undertake, is simply denying the significance of the impacts.



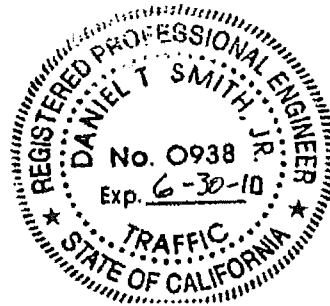
Mr. Tod Herman  
August 18, 2009  
Page 3

### Conclusion

Based on the foregoing, we are convinced the FEIR traffic analysis of significant impacts and mitigations are inadequate and that the FEIR is not suitable for certification under CEQA.

Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.



## Attachment 6



A. GOLDEN  
**FILED**

**JAN 04 2011**  
Superior Court of the  
State of California  
County of Nevada

**IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA**  
**IN AND FOR THE COUNTY OF NEVADA**

SOUTH COUNTY CITIZENS FOR SMART  
GROWTH, and DOES 1 through 10,

*Petitioner and Plaintiff,*

vs.

COUNTY OF NEVADA, NEVADA  
COUNTY BOARD OF SUPERVISORS, and  
DOES 11 THROUGH 20,

*Respondents and Defendants.*

**CASE NO: 75402**

**STATEMENT OF DECISION  
ON PETITION FOR  
WRIT OF MANDATE  
(CEQA)**

**AND REAL PARTIES IN INTEREST.**

On December 2, 2010, this court issued its Tentative Ruling on the Petition for Writ of Mandate (CEQA). Oral argument was heard on Friday, December 10, 2010. Attorney Keith Wagner appeared on behalf of Petitioner South County Citizens for Smart Growth. Attorney Allison Barratt-Greene appeared on behalf of Respondent County of Nevada. Attorney James Moose appeared on behalf of Real Party in Interest KKP Lake of the Pines. At oral argument, Petitioner requested a Statement of Decision. After consideration of the arguments of the parties, the pleadings on file, and the administrative record lodged with the court, the court hereby issues its Proposed Statement of Decision pursuant to Code of Civil Procedure §632 and California Rule of Court 3.1590.



1 **I. Project Description and Procedural History**

2 The following description of the project and the procedural history of this case, which  
3 are undisputed, are recited nearly verbatim from the parties' briefs, with few additions and  
4 deletions made by this court.

5 In 2005, Real Party in Interest Katz Kirkpatrick Properties ("KKP") submitted a  
6 complete application for the Higgins Market Place Project with the County. (Administrative  
7 Record ["AR"] 7:3649.) As originally proposed, the Project consisted of the subdivision of  
8 the site into 10 parcels for commercial, light industrial, and office uses. (AR 7:3409.) On five  
9 of the parcels (approximately 10.58 acres), the originally proposed project called for a 59,800  
10 square-foot retail store (expected to be a Bel-Air Market), two retail buildings (one 13,200  
11 square feet and one 6,500 square feet), two 3,500 square-foot drive-through fast-food  
12 restaurant buildings, and 482 parking stalls. (AR 6:3409, 3:1553-1555, 3:1565-1566.) No  
13 development was proposed on the other four parcels (approximately 5.07 acres), although the  
14 Project allowed for future development of approximately 42,000 square feet of light industrial  
15 and office space on these parcels. The last parcel (approximately 3.26 acres) was designated  
16 to retain existing wetlands and to provide an approximately 25-foot buffer between the  
17 developed parcels and the onsite wetlands. (*Ibid.*) Because the wetland buffer would be less  
18 than 100 feet, the Project also included a proposed Habitat Management Plan ("Habitat  
19 Management Plan"), as required by the County Code. (AR 3:1553, 3:1556, 5:2674-2675.)

20 In November 2007, the County published a Draft EIR analyzing the Project's potential  
21 to significantly impact the environment, and identifying potentially feasible mitigation  
22 measures and alternatives that would minimize or avoid potential significant impacts. (AR  
23 3:1550-4:1986; 6:3413.) The Draft EIR identified two significant traffic impacts (impacts 4.4-  
24 1, 4.4-2) and one significant cumulative air quality (impact 4.6-5) that could not be reduced to  
25 less than significant levels even with implementation of the mitigation measures identified in  
26 the Draft EIR. (AR 3:1480-1549.) All remaining potentially significant impacts of the  
27 Project, however, would be reduced to less than significant levels with implementation of the  
28 recommended mitigation measures. (*Ibid.*)



1 The Nevada County Planning Commission held a public hearing to take comment on  
2 the Draft EIR on January 10, 2008. (AR 5:2650-2651.) At the request of members of the  
3 public, the Planning Commission agreed to extend the public comment period on the Draft  
4 EIR, which would have ended January 22, 2008, to February 15, 2008. (AR 5:2657; see Pub.  
5 Resources Code, § 21091, subd. (b); CEQA Guidelines, § 15105.) One of the comments  
6 submitted to the County during this extended public comment period came on behalf of KKP.  
7 KKP's letter included, among other things, a peer review of the Draft EIR's traffic analysis  
8 and a proposal to reduce the size of the proposed Bel-Air to help reduce the Project's traffic  
9 impacts. (AR 5:2657, 4:2146-2170, 4:2200:202-2202:290<sup>1</sup>, 2252-2310.) In addition, at the  
10 request of KKP, PitneyBowes Map Info (PitneyBowes) submitted a letter updating the  
11 distribution of projected patrons to the project site, which could influence traffic patterns.  
12 (AR 4:2313-2316.) In order to give the public opportunity to review and comment upon  
13 KKP's comments, the Planning Commission voted to extend again the public comment period  
14 until February 29, 2008. (AR 6:3413.)

15 Following close of the public comment period on the Draft EIR, the County's  
16 environmental consultant, PMC, prepared responses to the seventeen written comments  
17 received on the document and to the oral comments received at the Planning Commission's  
18 hearings on the Draft EIR. (AR 5:2662.) The Final EIR, consisting of the Draft EIR, the  
19 Responses to Comments, and associated appendices, was released for public review and  
20 posted on the County's website on October 30, 2008. (*Ibid.*) Following release of the Final  
21 EIR, but prior to the Planning Commission's hearing on the Final EIR, four additional  
22 comment letters were received, including a comment letter submitted by Petitioner's counsel.  
23 PMC thereafter prepared responses to the late comments and the County included the response  
24 and late comments in an appendix to the Final EIR (Final EIR Appendix K. (5:2392-2499.)

25 On January 8, 2009, the Nevada County Planning Commission held a public hearing  
26 on the Final EIR to consider whether to recommend that the Board of Supervisors (the  
27

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28 <sup>1</sup> This citation format 4:2200:202 refers to volume 4, page 2200, line 202, of the  
administrative record.



1 “Board”) certify the Final EIR and whether to recommend that the Board approve the  
2 *legislative* approvals required for the Project (i.e., the General Plan Amendment and Rezone).  
3 (AR 5:2661, 6:3170.)

4 To address concerns over the Project’s air quality and traffic impacts, the staff report  
5 prepared for the January 8, 2009 hearing recommended that the Planning Commission vote to  
6 recommend that the Board approve a modified version of the Project. (AR 5:2667-2669,  
7 6:3408, 5:2976-2979.) Specifically, staff recommended that the Planning Commission  
8 recommend to the Board a 75,000 square foot cap on the commercial property, 10-acres of  
9 Open Space, an increase in the wetland buffer from 25 feet to 100 feet, and a prohibition  
10 against fast food restaurants due to their high traffic generation. (AR 5:2667-2669; 6:3170.)  
11 The Planning Commission voted 3-2 to recommend the Board approve staff’s proposed  
12 modifications to the Project. (AR 5:2667-2669, 6:3408, 5:2976-2979.) The Planning  
13 Commission also unanimously voted to recommend that the Board certify the Final EIR. (AR  
14 5:2975.)

15 Following the Planning Commission’s recommendation, KKP worked with County  
16 staff to revise the Project based on the Planning Commission’s recommendations and to  
17 address the Planning Commission’s concerns. (AR 12:6778-6783, 6:3410, 6:3170, 7:3919.)  
18 Although the Planning Commission’s January 8, 2009 recommendation was not unanimous,  
19 there did appear to be consensus that the traffic resulting from the project as originally  
20 proposed was a significant concern. (AR 7:3919, 5:2974-2979.) Based on the Planning  
21 Commission’s direction, KKP submitted two preliminary alternative designs for staff’s  
22 consideration. (AR 5:2974, 7:3919, 12:6782-6783.) Both would reduce the Project’s  
23 footprint and eliminate the fast-food restaurants. (AR 5:2978.) One design, however,  
24 depicted a 100-foot setback from the onsite wetlands, but would reduce landscaping and cause  
25 parking space conflicts with the major interior circulation routes. (AR 7:3776.) The other  
26 proposed a 50-foot non-disturbance setback from the wetland conservation area with a 20-foot  
27 buffer zone and provide greater landscaping. Staff reviewed the modified site plans and  
28 consulted with its biological consultant concerning the setback and buffer. (AR 5:2974,



1 7:3919-3921, 3776-3777, 12:6778-6783, 12:6819. 12:6782-6783, 12:7100 [showing  
2 landscaping].) Staff concluded that the second proposal was advisable and recommended that  
3 the Planning Commission recommend that version of the Project to the Board. (5:2974-2980.)

4 On May 28, 2009, the Planning Commission held a meeting to consider the revisions  
5 to the Project and whether to recommend that the Board certify the Final EIR for the modified  
6 Project. (AR 5:2973-2974.) Due to a procedural error with the noticing of that meeting,  
7 however, the Planning Commission only addressed whether to recommend the Board certify  
8 the Final EIR. The Planning Commission voted 5-0 that the Final EIR adequately  
9 encompassed the reduced-sized Project and therefore recommended that the Board certify the  
10 Final EIR. (AR 6:3170.) The Planning Commission met again on June 11, 2009, to deliberate  
11 on the revised Project. The Planning Commission voted to recommend the Board approve the  
12 legislative actions associated with the modified version of the Project. (AR 6:3170.)

13 On July 7, 2009, the Board held a public hearing to consider the Final EIR and whether  
14 to approve the Project's proposed legislative entitlements. (AR 6:3406, 6:3395-3404.)  
15 Counsel for Petitioner submitted a lengthy comment letter on the Final EIR at the beginning of  
16 that hearing. (AR 6:3406, 5:2548-2614.) To allow time to consider Petitioner's comment  
17 letter and based on concerns over the meeting's notice, the Board continued the hearing on the  
18 Project to August 18, 2009. (AR 6:3406.) Based on Petitioner's late comment letter, and  
19 other comment letters received since the Planning Commission's consideration of the Project,  
20 additional responses to comments were prepared, which were incorporated into the Final EIR.  
21 (AR 5:2535-2649 [Final EIR Appendix L].)

22 On August 18, 2009, the Board held two public hearings: one to consider the Final EIR  
23 and the other on the General Plan Amendment and Rezone (the legislative actions). The  
24 Board voted to certify the Final EIR and approve the General Plan Amendment and Rezone.  
25 (AR 7:3632, 1:178-179, 1:28-177, 1:24-27.) The Board also adopted CEQA Findings of Fact  
26 and a Statement of Overriding Considerations for the Project (i.e., for the legislative actions  
27 needed for the Project), pursuant to Public Resources Code section 21081. (AR 6:3407-  
28 7:3514; see also CEQA Guidelines, § 15091.)



1 Following the Board's certification of the Final EIR and approval of the Project's  
2 legislative items, on August 20, 2009, the County filed a Notice of Determination ("NOD")  
3 with the Office of Planning and Research pursuant to Public Resources Code section 21152  
4 and CEQA Guidelines section 15094, thus triggering the 30-day statute of limitations to file a  
5 CEQA challenge. (AR 1:8-10; Pub. Resources Code, §§ 21167, subds. (b), (c).)

6 Petitioner timely filed this action on September 18, 2009, followed shortly thereafter  
7 by a First Amended Petition and complaint filed on October 8, 2009. (See Petition for Writ of  
8 Mandate and Complaint for Declaratory Relief; First Amended Petition and Complaint [both  
9 on file in this action].)

10 On April 13, 2010, the County then issued subsequent adjudicatory approvals in  
11 furtherance of the Revised Project – including a use permit, tentative map, and habitat  
12 management plan (AR 1, 7977-8052.) On May 13, 2010, pursuant to a January 25, 2010  
13 Minute Order of the Court (on file in this action), Petitioner then timely filed its Second  
14 Amended Petition and Complaint (on file in this action), which now stands as the operative  
15 pleading in this action.

16 Petitioner requests the Court to issue a peremptory writ of mandate, invalidating and  
17 setting aside the following County determinations and actions in furtherance of the Revised  
18 Project for violations of CEQA and the State Planning and Zoning Law. Petitioners also  
19 request a mandate ordering the County and applicant to suspend all project activities in  
20 reliance on the foregoing invalid decisions and approvals.

## 21 **II. Standard of Review**

22 "Under CEQA, an EIR is presumed adequate, and the plaintiff in a CEQA action has  
23 the burden of proving otherwise." (*Al Larsen Boat Shop v. Board of Harbor Commissioners*  
24 (1983) 18 Cal.App.4th 729, 740; *See Also* Pub. Res. Code § 21167.3; *Mira Mar Mobile*  
25 *Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 486; *County of San Diego v.*  
26 *Grossmont-Cuyamaca Community College* (2006) 141 Cal.App.4th 86, 96; *State of California*  
27 *v. Superior Court* (1990) 222 Cal.App.3d 1416, 1419). "It is presumed that official duty has  
28 been regularly performed." (Evid. Code § 664). In the context of CEQA and Evidence Code



1 section 664, one Court has said: "In the absence of contrary evidence, we presume regular  
2 performance of official duty." (*City of Sacramento v. State Water Resources Control Bd.*  
3 (1992) 2 Cal.App.4th 960, 976). Evidence Code section 630 provides that "[t]he presumptions  
4 established by this article, and other rebuttable presumptions established by law that fall  
5 within the criteria of Section 603, are presumptions affecting the burden of producing  
6 evidence." (*See Also Kleist v. City of Glendale* (1976) 56 Cal.App.3d 770, 777 [Evidence  
7 Code section 664 goes to the burden of producing evidence]).

8 When reviewing the adequacy of an EIR, the trial court does not determine whether the  
9 agency's final decisions were correct, but only whether the agency arrived at them in  
10 accordance with the law and on the basis of substantial evidence. *Moss v. County of Humboldt*  
11 (2008) 162 Cal.App.4th 1041, 1050. A court must "resolve . . . substantive CEQA issues . . .  
12 by independently determining whether the administrative record demonstrates any legal error  
13 by the [lead agency] and whether it contains substantial evidence to support the [lead  
14 agency]'s factual determinations." *Vineyard Area Citizens for Responsible Growth v. City of*  
15 *Rancho Cordova* (2007) 40 Cal.4th 412, 427. "Only by requiring the [agency] to fully comply  
16 with the letter of the law can a subversion of the important public purposes of CEQA be  
17 avoided." *Rural Landowners Assn. v. City Council of Lodi* (1983) 43 Cal.App.3d 1012, 1022.

18 Where an agency has failed to proceed as prescribed by CEQA by *omitting* essential  
19 environmental review, this informational void is a "prejudicial abuse of discretion." *Sierra*  
20 *Club v. State Board of Forestry* (1994) 7 Cal.4th 1215, 1237. Although the court need not  
21 independently weigh the evidence, it *must* overturn an agency decision that fails to adequately  
22 address an environmental issue. *Citizens to Preserve the Ojai v. County of Ventura* (1985) 176  
23 Cal.App.3d 421, 428. This Court "can and must . . . scrupulously enforce all legislatively  
24 mandated CEQA requirements." *Vineyard*, 40 Cal.4th at 435.

### 25 **III. Need for Re-Circulation of EIR**

26 Petitioners first argue that the County violated CEQA's public participation and  
27 informed decision-making procedures by failing to prepare or circulate independent  
28



1 environmental review for the Revised Project ultimately presented to and approved by the  
2 County on August 18, 2009.

3 Respondent, however, argues that there is no requirement that an EIR be re-circulated  
4 if the Project changes only reduce potential environmental impacts. Respondent references  
5 CEQA's objective, which is "to foster better (more environmentally sensitive) projects  
6 through revisions which are precipitated by the preparation of EIR's." *County of Orange v.*  
7 *Sup. Ct.* (2003) 113 Cal.App.4th 1, 10.

8 Guidelines §15088.5 provides, "(a) A lead agency is required to recirculate an EIR  
9 when significant new information is **added** to the EIR after public notice is given of the  
10 availability of the draft EIR for public review under Section 15087 but before certification. As  
11 used in this section, the term "information" can include changes in the project or  
12 environmental setting as well as additional data or other information. New information added  
13 to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a  
14 meaningful opportunity to comment upon a substantial adverse environmental effect of the  
15 project or a feasible way to mitigate or avoid such an effect (including a feasible project  
16 alternative) that the project's proponents have declined to implement." [Emphasis added.]

17 In the present case, the Revised Project did not add new information to the EIR after  
18 public notice was given. Rather, the Revised Project modifications were designed to **reduce**  
19 the Project's impacts by reducing the size and uses of the Project, which in turn reduce the  
20 Project's environmental impacts. (AR 1:36, 6:3515-3516, 6:3408, 6:3410, 6:3414, 6:3422,  
21 6:3429, 6:3431 [revised Project would result in similar, if not reduced, hazardous materials  
22 impacts], 6:3433 [revised Project will result in reductions in traffic impacts to all study  
23 intersections], 6:3434-3435 [revised Project will reduce formerly significant traffic impact  
24 4.4.2 to a less than significant level], 6:3436-3439 [revised Project will result in less than  
25 cumulatively considerable traffic impacts], 6:3440-3442 [revised Project will result in similar,  
26 if not reduced, noise impacts], 6:3444-3448 [revised Project will result in similar, if not  
27 reduced, air quality impacts], 6:3448-3451 [revised Project will result in similar, if not  
28 reduced, hydrology and water quality impacts], 6:3452-3456 [revised Project will result in



1 similar, if not reduced, geology and soils impacts], 6:3457-3464 [revised Project will result in  
2 similar, if not reduced, impacts to biological resources], 6:3465-3466 [revised Project will  
3 result in similar, if not reduced, impacts to cultural resources], 6:3467- 3478 [revised Project  
4 will result in similar, if not reduced, public services and utilities impacts]; and 6:3479-3483  
5 [revised Project will result in similar, if not reduced, visual impacts]).

6 Moreover, the public was not deprived of a meaningful opportunity to comment upon a  
7 substantial adverse environmental effect of the project or a feasible way to mitigate or avoid  
8 such an effect. In fact, the Board allowed late filed comments by Petitioner. Thus, this court  
9 finds that the County did not violate CEQA's mandatory procedural requirements, as specified  
10 at CEQA Guidelines, section 15088.5(a)(3).

#### 11 **IV. Failure to Circulate Revised Analysis**

12 Petitioner next argues that CEQA required the County to consider the Planning  
13 Commission's January 8, 2009 recommendations for Project modifications in a revised EIR  
14 for the Project and to adopt CEQA findings regarding the feasibility of that alternative.  
15 Respondent, on the other hand, contends that CEQA imposes no such requirements.

16 The CEQA Guidelines set forth the lead agency's responsibilities regarding analysis of  
17 alternatives. "An EIR shall describe a range of reasonable alternatives to the project, or to the  
18 location of the project, which would feasibly attain most of the basic objectives of the project  
19 but would avoid or substantially lessen any of the significant effects of the project, and  
20 evaluate the comparative merits of the alternatives. An EIR need not consider every  
21 conceivable alternative to a project. Rather it must consider a reasonable range of potentially  
22 feasible alternatives that will foster informed decisionmaking and public participation. . . . The  
23 Lead Agency is responsible for selecting a range of project alternatives for examination and  
24 must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule  
25 governing the nature or scope of the alternatives to be discussed other than the rule of reason."  
26 (CEQA Guidelines, § 15126.6(a).



1 In this case, the court finds that the range of alternatives discussed in the EIR meets  
2 this standard. Specifically, the Draft EIR analyzed four alternatives to the proposed Project,  
3 which represent sufficient variation to allow informed decisionmaking.

4 **V. Failure to Analyze Sewer Facilities**

5 In the present case, as set forth in the Draft EIR, the Project will connect to the Lake of  
6 the Pines wastewater treatment plant via a pipeline conveyance down Higgins Road and  
7 Combie Road to the Lake of the Pines wastewater treatment plant. On August 5, 2009, the  
8 County's EIR consultant sent a memo to County staff ("Appendix L" to the Final EIR), which  
9 states: "[s]ince the EIR was drafted, the alignment of the sewer lines has been determined"  
10 (AR 2536). This document for the first time contains a description of the actual proposed  
11 location of the sewer line under Higgins Road and Combie Road; a map, showing the sewer  
12 line's proposed location and boundaries; and asserts that compliance with mitigation measures  
13 in the EIR, and conditions associated with a required encroachment permit and "a permit  
14 issued by the regional water quality control board," will "reduce or eliminate the need for  
15 mitigation." (AR 2536-2537.) The consultant's "Appendix L" memorandum was not  
16 circulated for public review, but rather was drafted and released by the County days before  
17 approving the Project on August 13, 2009. (AR 2535 ["Appendix L" memorandum, dated  
18 August 5, 2009].)

19 Petitioners argue the County violated CEQA's mandatory public participation and  
20 informed decisionmaking procedures because it failed to describe the boundaries, disclose,  
21 analyze or mitigate the impacts of an off-site sewer line required to serve the Project.  
22 Petitioners states that the County prejudicially abused its discretion by simply adding new  
23 information about the actual location and boundaries of the proposed sewer line (an integral  
24 part of the "whole" of the Project) to an "appendix" to its Final EIR produced just days before  
25 the County approved the Project, without circulating this new information as part of the Draft  
26 EIR.

27 Respondent, however, contends the Draft EIR properly analyzed the environmental  
28 impacts of the wastewater pipeline and included mitigation measures to reduce or avoid any



1 such impacts. Respondent argues that CEQA only requires that an EIR contain a “general  
2 description” of the technical characteristics of a project and that EIR preparers are instructed  
3 that a project description “should not supply extensive detail beyond that needed for  
4 evaluation and review of the environmental impact.” (§ 15124.) Respondents further cite to  
5 the case of *Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, which  
6 held that a challenged description met CEQA’s mandate to provide a “general description” of  
7 a stream  
8 diversion structures in sufficient detail to enable the public and the decisionmakers to  
9 understand their environmental impacts. (*Id.* at p. 36.)

10 The law is clear that the project description must contain sufficient specific  
11 information about the project to allow the public and reviewing agencies to evaluate and  
12 review its environmental impacts. A project description that omits integral components of the  
13 project may result in an EIR that fails to disclose the actual impacts of the project. *Santiago*  
14 *County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 829.

15 The court finds that the EIR was legally adequate. Figure 3-10 in the Draft EIR  
16 denotes the sewer pipeline alignment. The DEIR did not omit the integral component of the  
17 project relating to wastewater pipelines. The general description of the pipelines are set forth  
18 in sufficient detail to enable the public and the decisionmakers to understand their  
19 environmental impacts. The court finds that the County did not violate CEQA’s mandatory  
20 procedural requirements as set forth at CEQA Guidelines section 15124(a), in that the County  
21 did not fail to describe in its publicly circulated Draft EIR the proposed location of, or the  
22 impacts or potential mitigation measures or alternatives that could reduce or avoid such  
23 impacts associated with installing and operating, a required off-site sewer line for the Revised  
24 Project.

## 25 **VI. Violations of CEQA as to Biological Resources**

### 26 **A. Habitat Mitigation Plan**

#### 27 **1. Failure to Disclose Habitat Mitigation Plan**



1           Petitioners next argue that the County also violated CEQA's procedures by failing to  
2 describe or disclose in its publicly circulated Draft EIR a proposed "Management Plan" to  
3 address the project's biological impacts. The November 2007 Draft EIR that was circulated  
4 for public review, argues Petitioner, contains no substantive disclosure or analysis at all of the  
5 content of the proposed "Management Plan," in violation of CEQA's procedures.

6           Respondent, however, states that the Draft EIR's Project Description explains that that  
7 the Project includes a wetlands mitigation plan and that the plan will address the displacement  
8 of the small portion of wetlands (for the access road) and the reduction in the otherwise  
9 required 100-foot buffer. (AR 3:1556, 3:1553). In evaluating the Project's potential impacts  
10 to threatened or endangered species, the Draft EIR concludes that impacts to species occurring  
11 in riparian and wetland habitats within the project area would be less than significant because  
12 the project includes "a proposed wetland preserve and buffer area," which would avoid  
13 impacts to those species. (See e.g., AR 3:1776, 3:1794-1795.) To mitigate the development's  
14 potential impacts to the preserved wetland area, Draft EIR Mitigation Measure 4.9.2(a)  
15 requires the applicant to retain a qualified biologist/restoration ecologist to *implement* a  
16 Habitat Management Plan. (AR 4:1817.) Such Habitat Management Plan was prepared by  
17 Susan Sanders in December 2004. AR 16:9179-9245.

18           This court agrees with Respondent. Nowhere in CEQA is there a directive to include  
19 the Habitat Management Plan in the EIR. In fact, CEQA Guidelines § 15087(c)(5) allows  
20 "documents referenced in the EIR" to be available for review at specified locations. Here, the  
21 lack of a more detailed discussion of the Habitat Management Plan did not leave the County's  
22 EIR missing any fundamental pieces. Therefore, this is not a situation in which the public and  
23 decisionmakers have been deprived of meaningful information concerning the Project. The  
24 County did not violate CEQA's procedural requirements as set forth at CEQA Guidelines  
25 section 15087(c)(5).

## 26           **2. Failure to Disclose Adverse Effects**

27           Petitioner next contends that the County's failure to describe how implementation of  
28 the proposed, revised Habitat Mitigation Plan may itself result in significant, adverse effects



1 on the physical environment constitutes an additional and distinct violation of CEQA's  
2 mandatory procedures.

3 The court finds this argument to be without merit. The Draft EIR makes it clear that  
4 the Habitat Management Plan will serve to *mitigate* the Project's impacts to wetlands and  
5 biological resources. (See AR 4:1816-1819 [requiring implementation of the Habitat  
6 Management Plan as mitigation], see also AR 7:3890.) Substantial evidence supports the  
7 County's conclusion that the Habitat Management Plan will not adversely affect the  
8 environment; rather it would protect and, indeed, *benefit* the environment. (AR 6:3459,  
9 7:3890.)

10 Furthermore, Petitioner's reliance on *Farm Bureau Federation v. California Wildlife*  
11 *Conservation Board* (2006) 143 Cal.App.4th 173, is misplaced. That case did not hold that  
12 creation of wetlands is always an activity that would cause significant environmental effects  
13 requiring CEQA review. Instead, the Court of Appeal determined that a project to convert  
14 *agricultural* land into a wetland (which could have had significant environmental effects to  
15 agriculture) was not categorically exempt from CEQA. (*Id.* at pp. 194-196.) In the present  
16 case, the Habitat Mitigation Plan describes an option of "removing the asphalt and culvert at  
17 the existing road access that will be abandoned for a new alignment, and restoring the historic  
18 wetland in place." AR 19:10887. Thus, unlike *Farm Bureau Federation*, agricultural land is  
19 not converted. The court finds that the County did not violate CEQA's procedural  
20 requirements as set forth at CEQA Guidelines section 15126.4(a)(1)(D).

### 21 3. Conclusions Supported by Evidence

22 Here, Petitioners argue that the "County violated CEQA because the County's  
23 assertions in its EIR and CEQA findings that the project's impact to biological resources have  
24 been reduced to less than significant levels are not supported by the evidence they cite. The  
25 EIR and the County's findings both acknowledge that the Project may have significant,  
26 adverse impacts to on-site biological resources, but assert that implementation of the Habitat  
27 Management Plan will reduce all such impacts to less than significant levels. (AR 1815-1821;  
28 3456-3464.)" POB 23: 5-13.



1           Petitioners refer to Habitat Management Plan where it states that implementation of the  
2 project will result in impacts to a “number of wildlife species,” and that only “*some*” (not *all*)  
3 of these impacts will be mitigated by implementation of the Plan.

4           Respondent, on the other hand, argues: “the fact that grassland is foraging habitat for a  
5 number of species, does not mean that the loss of such habitat would necessarily be  
6 significant. (See CEQA Guidelines Appendix G, § IV.) The Habitat Management Plan does  
7 not, for example, indicate that the species foraging in the existing grasslands are sensitive or  
8 special status species, or that the area serves as a wildlife migratory corridor. (*Ibid.*) Instead,  
9 the Draft EIR specifically considered the Project’s impacts to grasslands and found them to be  
10 less than significant.” ROB 35: 5-10.

11           The court agrees with Respondent. Because impacts to grassland would already be  
12 less than significant, the fact that the Habitat Management Plan would help offset *some* of  
13 those non-significant impacts does not mean the County must consider that impact significant.

#### 14           **B. Urban Decay Impacts**

##### 15                   **1. Fails to Address Non-Grocery Retail Centers**

16           In order to help evaluate whether the Draft EIR’s investigation and disclosure of urban  
17 decay impacts was complete and adequate, Petitioner commissioned a review of the Draft EIR  
18 and its economic studies by Dr. Phil King, Associate Professor with the SFSU Economics  
19 Department. Dr. King’s July 6, 2009 report (AR 7261-7276), concludes that County’s EIR  
20 and economic studies do not meet CEQA’s definition of “substantial evidence” because they  
21 are 1) incomplete, and 2) lack factual support for their conclusion that the Revised Project has  
22 no potential to result in urban decay. (§ 21080, subd. (e)(2).)

23           Petitioner argues that the first problem identified by Dr. King is that the Draft EIR’s  
24 analysis of potentially impacted markets is incomplete because the underlying PMBI study  
25 fails to analyze any retail sector other than grocery/food stores. (AR 7262-7264.)

26           In response to this argument, Respondent argues that additional analysis of previous  
27 economic studies prepared for the Project was performed by Bay Area Economics (“BAE”) to  
28 focus specifically on the potential competitive impacts of the proposed Bel-Air store on the



1 Holiday Market. (AR 4:2183 [Response to comment 6-4; 4:2244-2250 [Final EIR Appendix  
2 B].) Respondent cites to BAE's findings which indicated that there was a possibility that the  
3 Project could create competitive impacts that could render the Holiday Market store  
4 economically unviable. (AR 4:2183-2184.) The analysis concluded, however, that closure of  
5 the Holiday Market would not lead to significant effects on the *environment* because the  
6 Holiday Market building would be retenanted long before any "urban decay" could set in.  
7 (*Ibid.*)

8 Judicial review in a CEQA action is governed by Public Resources Code section  
9 21168.5, under which the court's inquiry extends only to whether there was a prejudicial  
10 abuse of discretion. In determining whether an agency prejudicially abused its discretion, the  
11 "court must adjust its scrutiny to the nature of the alleged defect, depending on whether the  
12 claim is predominantly one of improper procedure or a dispute over the facts." (*Vineyard*,  
13 *supra*, 42 Cal.4th at p. 435.) If the dispute is predominately one of facts, the court must  
14 uphold the agency's actions that are supported by substantial evidence, even if a different  
15 conclusion could have been reached. (*Id.* at p. 435; *Laurel Heights I, supra*, 47 Cal.3d at pp.  
16 392-393, 407.)

17 Here, there are competing expert reports. Petitioner relies on Dr. King's report and  
18 Respondent relies on the BAE's finding. It is "well established that disagreement among  
19 experts does not make an EIR inadequate." *Laurel Heights I, supra*, 47 Cal.3d at p. 409. This  
20 is a dispute predominately one of facts, and this court must uphold the agency's actions, as  
21 they are supported by substantial evidence.

## 22 **2. Impacts to Retail Outside of Lake of the Pines**

23 Petitioner next argues: "Another significant internal contradiction that Dr. King  
24 identifies in his review is that while the EIR and its underlying economic studies define the  
25 Project's "market area" (*i.e.*, the locations from which shoppers will come to the site) to  
26 include the City of Auburn, nothing in the EIR 1) provides any analysis of already  
27 "dangerously high" existing retail vacancies in Auburn, or 2) considers how (i) eliminating  
28 Lake of the Pines shoppers from the Auburn marketplace by "capturing" their sales at the



1 Higgins Marketplace Project, or (ii) drawing shoppers away from Auburn to instead shop at  
2 Lake of the Pines, might cause or exacerbate urban decay in the City of Auburn. (AR 7265-  
3 7269.)” POB 26:23-29.

4 Respondent counters this argument by again referring to the BAE, which concluded  
5 that it is unlikely that the effects of Bel-Air, “which is at a significant distance from any of the  
6 other stores in Auburn and Grass Valley[,] would be sufficient in the case of any individual  
7 store to cause closures.” (AR 7:3610.)

8 Again, this is an argument relating to competing experts’ analysis. This is a dispute  
9 predominately one of facts, and this court must uphold the agency’s actions, as they are  
10 supported by substantial evidence.

11 **3. Failure to Consider Cumulative, Future Projects & Findings**

12 Petitioner next argues that the County’s failure to consider and incorporate *future*,  
13 planned and proposed retail projects in the Project’s market area is another example of the  
14 inadequacy of the EIR. Petitioner also contends the County prejudicially abused its discretion  
15 in adopting CEQA findings regarding urban decay impacts that are unsupported by substantial  
16 evidence.

17 As set forth above, although Petitioner presented evidence attempting to undermine the  
18 County’s urban decay analysis, BAE has rebutted King’s opinions with its own reasonable  
19 interpretation of the facts and expert analyses. (AR 7:3611, 7:3613, 1:51-53, 7:3854-3856,  
20 11:6247-6249.) The County has discretion under CEQA to choose to believe its own experts  
21 over those retained by Petitioner. (See *Cadiz, supra*, 83 Cal.App.4th at pp. 97-100; see also  
22 *Laurel Heights I, supra*, 47 Cal.3d at pp. 392-393 [“the reviewing court must resolve all  
23 reasonable doubts in favor of the administrative finding and decision”]; *Assn. of Irrigated*  
24 *Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1397 [lead agency has  
25 discretion “to give more weight to some of the evidence and to favor the opinion and estimates  
26 of some of the experts over the others”].) For these reasons, the court rejects Petitioner’s  
27 urban decay arguments.

28 ///



1           C. Traffic

2                   1. Failure to Circulate

3           In this section, Petitioner asserts that the EIR's analysis and the County's related  
4 CEQA findings regarding the project's traffic impacts are also inadequate to meet CEQA's  
5 procedural and substantive requirements. Specifically, Petitioner refers to the Draft EIR  
6 which stated that the project would have significant and unavoidable traffic impacts, but  
7 proposed a mitigation measure requiring the applicant to fund the Project's "fair share" of  
8 widening a segment of SR 49. Petitioner then points out that the Final EIR subsequently  
9 asserted that a new and different traffic study (that was not included in the Draft EIR's public  
10 disclosure or analysis) indicates that this impact is actually "less than significant" and,  
11 therefore, summarily deletes the Draft EIR's proposed fair share funding mitigation measure  
12 entirely. (AR 2129-2131.)

13           Respondent, however, refers to the fact that KKP decided to reduce the proposed Bel-  
14 Air store from 59,800 square feet to 57,022 square feet. (AR 4:1990, 4:2129, 4:2256.) With  
15 the updated traffic distribution and the reduced Bel-Air building size, the Project trips along  
16 SR 49 north of Combie Road were projected to decrease to 1,814 daily trips, compared to the  
17 2,300 trips shown in the Draft EIR. The revised traffic volume corresponded to an LOS "D,"  
18 meaning the impact would be less than significant. (AR 4:2129.) Thereafter, the County  
19 extended the comment period on the Draft EIR to give the public opportunity to review and  
20 comment upon this new traffic analysis. (AR 6:3413.)

21           It is very clear, then, that by reducing the size of the Bel-Air market, and as shown in  
22 the updated traffic distribution analysis, Impact 4.4.2 was reduced to a less than significant  
23 level. (AR 4:2393.) As such, the elimination of mitigation measures for that impact does not  
24 constitute "significant new information" requiring recirculation of the Draft EIR. (Pub.  
25 Resources Code, § 21092.1; CEQA Guidelines, § 15088.5, *Laurel Heights II*, *supra*, 6 Cal.4th  
26 at p. 1129.)

27   ///

28   ///



## **2. Redesignation of Combie Road**

Petitioner next argues that the County also violated CEQA in determining in its Final EIR and CEQA findings that the Revised Project's acknowledged LOS E impacts to Combie Road between Higgins Road and SR 49 can feasibly be "mitigated" to less-than-significant levels by redesignating the road from its current status as a "major collector" to a "minor arterial" roadway. (AR 7252-7253, 7282, 7433.) Petitioner then states the County's assumption in its Revised Traffic Study and CEQA findings that the County will be able to limit driveway access along this segment is unsupported by fact.

Respondent counters that the County did not redesignate Combie Road as a minor arterial as a *mitigation measure*. Rather, the County determined that, for the purposes of the traffic analysis, Combie Road is more accurately considered a minor arterial (which has limited driveway/street accesses), rather than a major collector (which allows unlimited driveway/street accesses and therefore results in slower conditions). (AR 12:6966-6970, 11:60-62, 6:3525, 6:3596-3597 [KD Anderson's response to comments], 7:3602-3604 [letter from MRO Engineers], 4:2109-2110 [Final EIR Response to Comment 1a-6].) Thus, contends Respondent, because substantial evidence supports the County's determination that Combie Road functions as a minor arterial, and not a major collector, the court must uphold the County's traffic analysis. (*Federation, supra*, 83 Cal.App.4th at p. 1259.

The court finds that MRO Engineers provided evidence that more than adequately supports the conclusion that, because Combie Road is more properly defined as a minor arterial, impacts to Combie Road will be less than significant. See AR 7:3603-3604, 6:3435-3436. Thus, the court finds that CEQA was not violated.

## **3. Queuing Impacts**

In this last section relating to traffic impacts, Petitioner argues the County also violated CEQA's procedures by failing to adequately address or mitigate the Revised Project's traffic impacts along the westbound approach to the intersection of Combie, Wolfe and SR 49.



1           However, it is clear that the County follows "standard traffic engineering practice" and  
2 bases its "determinations regarding the significance of project-related impacts on intersection  
3 and roadway level of service, not on queue lengths." (AR 7:3604, see also AR 4:2110.)

4           The County has discretion in defining what constitutes a significant effect on the  
5 environment and does not consider queuing impacts to qualify as such under CEQA. See  
6 CEQA Guidelines, §§ 15064.7 [agency discretion to define "thresholds of significance"],  
7 15382 [broad definition of "significant effect on the environment," which includes no  
8 language supporting any notion that, as a matter of law, "queuing impacts" must be treated as  
9 such].

10           Thus, because queuing does not have a significant effect on the environment, any  
11 alleged failure by the County to adopt mitigation measures relating to queuing is immaterial.

12 **VII. Subsequent Approvals**

13           Lastly, Petitioner contends the County's April 13, 2010 subsequent approvals must  
14 also be set aside as void *ab initio*, on the separate and additional ground that they are  
15 inconsistent with and would frustrate the implementation of the County's General Plan and  
16 zoning. It appears that Petitioner is arguing that, because it has *asserted* that the original  
17 legislative approvals for the Project were invalid, the later adjudicatory approvals were also  
18 invalid.


19           The court finds that such argument is without merit. Because this court has determined  
20 that the EIR was legally adequate, the April 2010 approvals are not void *ab initio*.

21 **VIII. Conclusion**

22           For the foregoing reasons, the Petition for Writ of Mandate (CEQA) is denied.

23 ///

24 DATED: 11/3/11

  
ROBERT YAMIETTI  
Judge of the Superior Court



DECLARATION OF SERVICE BY MAIL

I, G. SEAN METROKA, Court Executive Officer, County of Nevada, being a citizen of the United States, a resident of the County of Nevada, and not a party to the cause, do hereby certify that I mailed copies of the:

STATEMENT OF DECISION ON PETITION FOR WRIT OF MANDATE

of which the original is on file, in case #75402 to the following named persons, to wit:

CELESTE LANGILLE of LIPPE GAFFNEY WAGNER LLP  
329 BRYANT ST., SUITE 3D, SAN FRANCISCO CA 94107

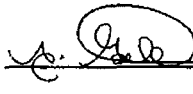
LEANNE K. MAYBERRY of OFFICE OF THE COUNTY COUNSEL  
950 MAIDU AVENUE, NEVADA CITY CA 95959

TIFFANY K. WRIGHT of REMY, THOMAS, MOOSE AND MANLEY, LLP  
455 CAPITOL MALL, SUITE 210, SACRAMENTO, CA 95814

DISMISSED

and that the envelope with prepaid postage was sealed and placed for collection and mailing in the United States Post Office at Nevada City, California on the date of January 04 2011.

G. SEAN METROKA, Court Executive Officer  
Nevada County Courts

  
Deputy



## Attachment 7





SMITH ENGINEERING & MANAGEMENT

March 8, 2013

Ms. Kim Jordan  
Planning and Community Development Department  
City of Ukiah  
300 Seminary Avenue  
Ukiah, CA 95482

**Subject: Costco Wholesale Project Draft Environmental Impact Report  
("DEIR") SCH # 2011112025**

Dear Ms. Jordan:

At the request of Attorney William Kopper, I have reviewed the traffic aspects of the Draft Environmental Impact Report (the "DEIR") and supporting documentation, particularly the Appendix - Transportation Impact Analysis report, for the Costco Wholesale Project in the City of Ukiah(the "Project"). My qualifications to perform this review include registration as a Civil and Traffic Engineer in California and over 44 years professional consulting engineering practice in the traffic and transportation industry. I have both prepared and reviewed traffic and circulation analyses of environmental review documents, including studies of shopping centers, freestanding discount stores and superstores and discount club stores and superstores. I am familiar with the surroundings of the proposed Project, having previously commented on the nearby proposed Walmart expansion project. My professional resume is attached.

Findings of my review are summarized below.

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**The DEIR Relies on Unrepresentative and Outdated Traffic Counts As the Fundamental Base for Most of Its Traffic Analyses**

The so-called existing traffic counts that the DEIR relies upon for evaluation of all traffic scenarios except long range cumulative ones are comprised of peak period intersection turning counts taken in February of 2010 and California Department of Transportation (Caltrans) traffic data collected in 2008. The intersection counts and traffic data were originally assembled for the traffic impact analysis of the Walmart Expansion Project DEIR that was circulated in the summer of 2011.

2

The Caltrans representative commenting on that Walmart DEIR noted that the peak hour turn counts taken in the month of February were grossly under-representative of the typical average peak hour throughout the year<sup>1</sup>. We ourselves, commenting on the Walmart FEIR, noted that the response to Caltrans comments on this issue were evasive, contrary to fact and that there was substantial evidence that the low February traffic counts lead to critical errors in traffic study conclusions as to whether, absent mitigation, project traffic would produce extended queues on the US 101 southbound off ramp to Talmage Avenue, resulting in critical compromises to public safety<sup>2</sup>. The substantial evidence documented at that time was:

3

1. The authoritative trip generation source document *Trip Generation, 8<sup>th</sup> Edition*, at Table 4 on page 1499<sup>3</sup> indicates that February shopping center traffic totals only 78.1 percent of annual monthly average shopping traffic, and is the absolutely lowest month of the year.
2. Caltrans maintains permanent traffic count stations at locations throughout northern California. The data from a nearby Caltrans permanent count station on US 101 shows that general traffic on the freeway in February is 7 percent lower

<sup>1</sup> Letter of comment on Walmart Expansion DEIR dated August 18, 2011 from Jesse Robertson, Caltrans District 1 to Kim Jordan, City of Ukiah.

<sup>2</sup> Letter dated January 17, 2012 from Daniel T. Smith Jr., P.E. to William D. Kopper, submitted as part of the formal record at the City Council hearing on the Walmart matter, January 18, 2012.

<sup>3</sup> The table is reproduced as Attachment A to this letter.

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than the average annual month, 12.4 percent lower than the average of the busiest 6 months of the year and 18 percent lower than the busiest month of the year. Now, in the Costco DEIR, the Lead Agency and its consultants, rather than conducting new counts in a representative month, are again relying on the February 2010 traffic data it knows, or should know, to be critically flawed without performing any seasonal adjustment on it to make it representative of an average peak hour.

3 cont.

The DEIR makes the finding that there is a traffic impact condition at the intersection of Talmage Avenue and the U.S. 101 southbound ramps that is significant and unavoidable. A critical issue in that circumstance affecting whether it would be appropriate to approve the Project under findings of overriding considerations is whether the traffic queuing on the southbound off ramp with the Project without the mitigation improvement to the interchange would constitute an extreme hazard to public safety. The difference in baseline traffic as counted in an extremely low traffic month like February as compared to an average traffic month is, as we document in a subsequent section, of sufficient dimension to make a difference in whether or not it would be acceptable to approve the Project under overriding considerations.

4

The reuse of stale existing traffic condition data also raises CEQA compliance issues. CEQA guidelines section 15125(a) indicates that the normal baseline for measuring a Project's impacts is the environmental conditions that exist at the time of filing the Notice of Preparation (NOP) for the EIR. The date of the NOP in Costco's case is November 4, 2011. By that date, the unrepresentatively low February, 2010 counts were nearly 2 years old, were more than 2 years old before the DEIR traffic study was completed and were a month short of 3 years old when the Costco DEIR was actually circulated. By that time the economy had improved over 2010. In our above-referenced 1-17-12 letter, we pointed out that the 2010 counts at the Walmart driveways indicated that at that time Walmart was only generating trips at 71 percent of typical average rates for that type of store, so there is every reason to believe that by late 2011 or early 2012, even without any other significant development in the area, counts at the Talmage / U.S. 101 southbound

5



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ramps intersection would be significantly higher than in the unrepresentative counts of February, 2010. Given this, and given that the representativeness of the February 2010 counts had been already a matter of contention, the DEIR's failure to perform new traffic counts in a month as reasonably representative of average as practical after the time of the NOP is not only a procedural violation of CEQA Guidelines section 15125(a), it is also indicative of a lack of the good faith effort to disclose impact that CEQA demands.<sup>4</sup>

5 cont.

### **The Trip Generation Analysis Appears Excessively Favorable To the Project**

The trip generation estimate for the Project is based on data furnished by the applicant for three of its small-city establishments serving fairly large surrounding rural market areas that it considers most comparable to the proposed Project's circumstances. However, the three Costco sites from which trip generation data has been drawn are really quite different in terms of their market areas. In the case of Carson City, there are 2 Costco stores in Reno, only about 30 miles distant. In the case of the Turlock Costco, there are other Costcos about 14 miles away in Modesto, 26 miles away in Merced and 30 miles away in Manteca. The Eureka store has a very large market area, with the nearest Costcos being 148 miles away in Redding, 199 miles away in Medford Oregon, 210 miles away in Chico and 225 miles away in Santa Rosa. And in contrast to the Carson City and Turlock locations, these long mileages to the nearest Costco stores that define the Eureka Costco market area are mileages on difficult roads. If the Ukiah store is completed, the nearest Costco stores to it will be 60 miles away in Santa Rosa, 148 miles away in Chico and 152 miles away in Eureka. So the most similar store to Ukiah is the one in Eureka. Not surprisingly, the Eureka store with its vast market area, per Table 3.10-6, has a trip generation rate that is 13.5 percent higher than the Carson City store, 8.9 percent higher than the Turlock store and 7.1 percent greater than the overall average of the three that was relied on in the study. In keeping with the good faith effort to disclose impact that

6

<sup>4</sup> We also note that, insofar as the DEIR relied on the same 2008 Caltrans traffic counts as in the Walmart Expansion DEIR, by the time of the Costco NOP, Caltrans counts for 2009 and 2010 were already available and 2011 counts were available before the time of completion of the DEIR's draft traffic study in June of 2012.



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CEQA demands, it makes sense that the Eureka store should be the basis for the trip generation estimate rather than the average of the three locations.

6 cont.

#### **Assumed Attraction of Passer-by Traffic Unsustainable By Existing Traffic**

Before addressing the principal point in the above heading, we observe that the Project Trip Generation Summary, DEIR Table 3.10-7, makes it appear that the traffic analysis eliminated from further consideration those trips presumed attracted from passer-by traffic at the trip generation stage rather than tracing the paths of those trips from the point they divert from their existing route to the Project site and back to the point of resumption of their original trip. We note that the Project Traffic Volumes evidenced in Figure 3.10-3, particularly those for Intersection 10, seem to make evident that attracted passer-by trips were properly traced in from their point of diversion and back to their point of trip resumption. However, for the record, please confirm that this latter interpretation is in fact the case.

7

The aforementioned DEIR Table 3.10-7 and the narrative text associated with it indicates that 37 percent of the Project's pm peak hour trips, 411 trips in specific, would be attracted from drivers already passing nearby to the site, mostly from Talmage Avenue and the northern part of Airport Park Boulevard. This statistic is reportedly derived from data on Costco facilities nationwide. It is important to recognize that such a data base would reflect the characteristics of numbers of Costco facilities located near the crossroads of high-traffic urban arterials as well as some near the less-busy arterials of smaller communities like the proposed site in Ukiah. Logically, that overall national statistic of passer-by attraction may not be representative of what can be sustained at the proposed Ukiah site. Here we consider the specifics of the proposed site. Figure 3.10-2 indicates that in the February, 2010 counts, a total of 2288 vehicles passed through the intersection of Talmage Avenue with Airport Park Boulevard in the weekday pm peak hour. If, as projected in the DEIR, 411 pm peak hour trips to Costco are to be attracted from existing passers-by, then everyone normally passing through the

8



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intersection of Talmage with Airport Park Boulevard would have to divert to visit Costco once every 5 or 6 weekdays (average once every 5.57 weekdays). This frequency of visitation is unrealistic. The amount of traffic passing close by the site simply cannot sustain the share of Costco trip generation assumed to come from passer-by capture. The analysis should be redone assuming a more sustainable rate of passer-by capture, given the level of existing traffic near the site.

8 cont.

### Analysis of Traffic Queues Critically Flawed

Several traffic queuing issues are critical to the environmental analysis of the Project. They include:

- With the Project and proposed traffic mitigations, would traffic queues on Talmage between its intersections with Airport Park Boulevard and the U.S. 101 southbound ramps extend from the downstream intersection into the upstream intersection in either direction, or would excessive queues from turning lanes obstruct through lanes? 9
- With the Project and proposed traffic mitigations, would traffic queues on the U.S. 101 southbound off-ramp to Talmage be safely accommodated? 10
- With the Project and proposed traffic mitigations, would traffic queues on the other approaches to either the intersection of Talmage with Airport Park Boulevard or to the southbound ramp intersection create problems? 11
- If the Lead Agency were to consider approving the Project without the proposed mitigation to the intersection to Talmage and the U.S. 101 southbound ramps under findings of overriding considerations, would conditions so detrimental to public safety be likely that it would be unreasonable to approve findings of such overriding considerations? 12

The DEIR's information in response to these issues is inadequate on several counts. First, the DEIR's analysis of queues is entirely based on hypothetical simulations of 13



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queue lengths, even for the “existing condition”<sup>5</sup>. Although observations of existing queue lengths could easily have been made, this was never done. Hence, there is no way of knowing how well or poorly the simulation results presented in the DEIR reflect actual conditions. Because the queuing issue is so critical to the evaluation of this Project, the DEIR’s analysts should measure existing queues, compare the result of the actual measurements to the output of the simulations of existing conditions and use that metric to adjust the results of the simulations for other scenarios.

13 cont.

Another problem with the DEIR’s analysis of queues is the way it analyzes the queues on the southbound off ramp from U.S. 101 to Talmage. The DEIR makes the proper interpretation that queues on the southbound right (the southbound-to-westbound movement in the interchange) become impactful when the queue length exceeds 600 feet. When queues on the southbound-to-westbound movement exceed 600 feet, they extend past the point where the southbound-to-eastbound exit movements split from the southbound-to-westbound movements and the southbound-to-westbound queue begins to block those southbound-to-eastbound movements. Once that happens, a new dynamic kicks in and the queue on the southbound ramp begins to build at a rate as if the entire flow on the southbound off ramp were being processed through the southbound-to-westbound movement. The DEIR fails to assess this dynamic and, as a consequence, underestimates the actual length of queues that would build on the subject southbound off-ramp in situations where the interchange mitigation identified in the DEIR may not be built.<sup>6</sup> Consider the implications in each of the following scenarios:

14

- Existing Condition: DEIR Table 3.10-4 indicates the queue on the southbound-to-westbound movement on the subject off ramp is 728 feet. But, because the southbound-to-eastbound traffic becomes mired in the southbound-to-westbound queue, the actual queue will be in excess of 972 feet<sup>7</sup>. This places the back of the

<sup>5</sup> The DEIR relies on the average of six separate simulation runs of the analysis software SIMTRAFFIC to estimate queues for each analysis scenario (see DEIR page 3.10-8).

<sup>6</sup> Since this issue was raised in our letters of comment on the Walmart DEIR, the failure of the Lead Agency and its consultants to properly assess queue length in this DEIR is inexplicable and improper.

<sup>7</sup> In this and the immediately following queue estimates, we estimate that the added queue length would be proportional to the added approach volume participating in the queue as the result of the southbound-to-eastbound traffic flow being caught in the queue upstream of the ramp split and being processed past the



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queue in the high speed deceleration area of the off-ramp, a significant safety problem.<sup>8</sup>

- Existing + Project Condition: DEIR Table 3.10-10 indicates that, without mitigation, the queue on the southbound-to-westbound movement on the subject off-ramp would be 1037 feet. However, because traffic on the southbound-to-eastbound movement becomes additive to that queue, the actual queue would be in excess of 1325 feet. This places the back of the queue onto the freeway mainline, a very hazardous situation.
- Near Term + Project: DEIR Table 3.10-13 indicates that, without mitigation, the queue on the southbound-to-westbound movement on the subject off-ramp would be 1192 feet. However, because traffic on the southbound-to-eastbound movement becomes additive to that queue, the actual queue would be in excess of 1525 feet. The back of this queue would extend several hundred feet onto the freeway mainline, an extremely hazardous situation.

14 cont.

Based on the above information, there can be no doubt that unless the interchange configuration is mitigated, the impacts on the southbound off-ramp and southbound freeway mainline would be severe public safety hazard as well as significant delay. Given this, it would be utterly irresponsible and negligent for the Lead Agency to approve the Project under findings of overriding considerations without implementing mitigation improvements to the interchange or is to allow Project occupancy before committed mitigations to the interchange can be implemented.

split point at the rate of queue building and dispersal of the southbound-to-westbound movement. In an actual probabilistic computation of queue length, the 95<sup>th</sup> percentile queue would be longer than the values approximated through proportional techniques herein.

<sup>8</sup> The queue analysis of the existing traffic condition begs this question: Why, if the existing traffic volume inputs and road geometry are identical to those in the Walmart Expansion DEIR, and the same analysis program was employed by the same traffic consultants as produced the Walmart Expansion DEIR, why are the queue lengths for the existing condition predicted in the current study different from those predicted in the Walmart DEIR? The facile answer is that the queue lengths are predicted by a traffic simulation program; each simulation run produces somewhat different results, and that is why the predicted queues are the average of that predicted in six simulation runs. While all of that is factual, the differing results between the current and prior study suggest that six runs of SIMTRAFFIC is insufficient to reach a stable average value of maximum queue length that would be at least close to the average of a separate set of the same number of runs of the simulation on the same input data. In this commenter's experience, the normal standard of practice is to assume that it takes 10 runs of the simulation to reach a stable average prediction of maximum queue length.

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We also note that all of the foregoing is based on the underlying data presented in the DEIR. If corrections were made for the understatement of traffic described in prior sections herein - low February traffic counts, for the low Walmart existing traffic generation (only 71 percent of norms at the time counted), understatement of this Project's trip generation, and for the excessive portion of the Project's trip generation assumed attracted from existing passers-by - then the queues on the southbound U.S. 101 off-ramp to Talmage would be significantly greater than we estimate above.

14 cont.

A final queuing issue concerns the queue projected in the right turn lane of the northbound approach on Airport Park Boulevard to its intersection with Talmage. Even with proposed mitigation, this queue is projected to be 261 feet in the Existing + Project scenario and 271 feet in the Near Term + Project scenario. The DEIR dismisses the significance of these queues because they do not extend into a "controlled" intersection. However, at these queue lengths, the queues will extend well past the driveway to the Quick Stop convenience store and gas station, probably blocking it almost full time, and into the northernmost driveway of the Walmart property. We suggest that the managements of these establishments be contacted and the DEIR should note whether or not they concur that the projected queues are not significant.

15

#### **Lead Agency Fails To Fully Disclose Its Knowledge of Design Details and Feasibility of Proposed Mitigation Improvements to U.S. 101/Talmage Interchange**

In early 2012, perhaps in reaction to our written and oral comments that the mitigation improvements To U.S. 101/Talmage Interchange proposed in the Walmart DEIR appeared infeasible, the City had GHD Inc., a civil engineering firm it was relying on for other work connected with Redwood Business Park, perform a civil engineering design feasibility review of the mitigation alternatives proposed for the interchange in that DEIR. At the City Council's March 7 meeting, staff reported that the roundabout designs favored as mitigation by the Walmart DEIR and its traffic consultant were far less feasible than the signalization mitigation scheme that relocated all southbound off-ramps

16



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to the southwest quadrant of the interchange. The staff report, which included a preliminary design plan for this latter mitigation dated January, 1012 at a scale of 1 inch to 80 feet, also indicated that this scheme would require Caltrans approval of certain undisclosed "design exceptions" (that is, waivers to nonconformance to Caltrans design standards). Subsequently, at its June 6, 2012 meeting, the City Council approved a contract with GHD to prepare full construction design documents for this mitigation

16 cont.

scheme and negotiate Caltrans approval of the scheme. However, in the Costco DEIR released in late January, 2013, this mitigation scheme for the interchange is only presented in the same crude conceptual detail that was presented in the Walmart DEIR in mid-summer 2011, an unscaled level of detail so conceptual that the traffic engineer for both DEIRs' described the sketches as 'cartoons' in City Council testimony.

The DEIR acknowledges the City is preparing design studies for the subject mitigation. It acknowledges that full funding for the mitigation is not guaranteed at this time. And it acknowledges that Caltrans approval of the design (and encroachment permit to construct it is required. On the basis of these considerations, it classifies the Project's traffic impact in the interchange area significant and unavoidable. But the language of the DEIR conveys the impression that this is all just a matter of procedure and timing – that approvals and funding are close to being lined up and the mitigation is really going to get built soon, leading the public and policymakers to the belief that it would be acceptable to approve Costco now with the expectation that the mitigation implementation will soon follow.<sup>9</sup> But such a view overlooks the complexities of the situation. Although the City has known since sometime in advance of March 7, 2012 that Caltrans approval will be contingent on Caltrans acceptance of violations of Caltrans design standards, the DEIR fails to disclose what the specifics of the needed "design exceptions" are. This must be disclosed so the public can form its own impression of whether or not the proposed mitigation will be built any time soon. The following vague statement contained on DEIR page 3.10-26 is insufficient and potentially misleading, "*The City has consulted with Caltrans and there is agreement on the need for improvements at that location.*"

17

<sup>9</sup> See DEIR page 3.10-26.



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*Preliminary designs of the intersection improvements have been shared and discussed with Caltrans staff.*" The public should be informed based on the City's best state of knowledge at the time of circulation of this DEIR whether Caltrans officials reviewing the design proposal have been favorable to the proposed design (not just in agreement that some improvement should be made), whether they have at least informally indicated openness to the design exceptions involved or been skeptical about the likelihood of granting them, been non-committal or even voiced preference for a different mitigation design.

17 cont.

The DEIR's entire presentation of the proposed mitigation fails to convey the inherent operational complexity and driver-challenging nature of the design. A key aspect of this is that the design presumes that all four westbound approach lanes on westbound Talmage to Airport Park Boulevard (two lefts, a through and a combined through-right) will extend all the way to the intersection with the 101 southbound ramps – that is, without the normal raised island bay taper protecting and channelizing access to the left turn lanes. Unless the lanes extend fully, there will be insufficient queue storage between the two intersections and the mitigation will be dysfunctional from the start. The DEIR Appendix D traffic study expresses the hope that drivers will be directed to the correct lane for their destination by signs and markings on the off ramp and intersection markings to avoid creating a trap lane for drivers in the left-most off ramp lane.<sup>10</sup> However, this facile view that guidance will allow drivers to sort themselves out appropriately ignores the geometry of the proposed off-ramp. The geometry is such that drivers will have to demerge from a single lane to the appropriate one of three lanes (leftmost for Airport Park Boulevard, center for Talmage westbound, right for Talmage eastbound) while simultaneously executing a 180-degree fishhook turn on an extremely short radius (approximately 200 foot outside radius on the outside lane) curve. And this must happen with the driver's view on the approach to the demerge and fishhook curve screened by the overcrossing structure. Since Costco as well as the existing Walmart and Friedmans in Redwood Business Park all draw customers from large, remote market

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<sup>10</sup> DEIR Appendix D, pages 17 and 18.



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areas, many of the drivers on the ramp will be first time or infrequent users who, despite best efforts at signing and marking, will end up in the wrong lane on the ramp and still attempt to weave to lanes serving their intended destination. Ultimately, traffic operations on the proposed mitigation are likely to resemble those at the bumper-car arena at an amusement park. Hence, it is questionable that the design as proposed is approvable. DEIR Appendix E admits on the above-referenced page that the intent of the proposed mitigation design is to avoid the need for the more costly (and more conventional) solution of widening the freeway overcrossing to 4 lanes.

18 cont.

On the interchange mitigation funding issue, the DEIR should make clear to the public that that the City's intent had been to fund the majority of the cost that would not be funded by Costco and other fair share payers by using funds through the Successor Agency to the Ukiah Redevelopment Agency and that the State of California Department of Finance disputes the legality of the City using those funds for that purpose. The DEIR should reference the staff report to the June 6, 2012 City Council meeting or any subsequent report adding more clarification to the issue.

19

**Since the Project Cannot Be Implemented Without the Interchange Modification, the Interchange Modification Should Be Evaluated in the DEIR as Part of the Project**

The Costco Project cannot go forward without modification to the Talmage – U.S. 101 interchange area. The City's staff report for the June 6, 2012 City Council agenda item approving the design contract for the interchange modification stated in its first paragraph, 4<sup>th</sup> sentence: *"It is clear that the build out of the Park will require a significant improvement to the traffic facilities for the south bound freeway traffic."* Analyzed properly, the data in the current DEIR makes clear that the Costco Project cannot be reasonably approved unless an effective modification to the interchange is constructed simultaneously. Due to these considerations, the interchange modification should be treated as an element of the Costco Project. The DEIR's Project Description

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section fails to identify the interchange modification as an element of the Costco Project or to identify the full impacts of the interchange modification. The DEIR solely purports to evaluate the interchange modification's effectiveness in mitigating the traffic effects of the rest of the Costco Project. CEQA requires environmental analysis of 'the whole' of a project. In failing to identify the interchange modification as part of the Project Description and in failing to attempt to identify all of the interchange modification's environmental impacts, the DEIR improperly segments the real Project. The DEIR should be revised to evaluate the full environmental impacts of the Project including in specific those of the proposed interchange modification.

20  
 cont.

In any case, the interchange modification would be a major project that would require its own EIR, even if it were to be considered as an independent action. To date, there is no evidence of any effort to perform a complete environmental review of the interchange modification project. The fact that the City has acted to include this specific design of interchange modification in its Capital Improvement Program and funded in excess \$250,000 in development of construction plans for the modification without conducting any environmental analysis of the proposed modification may also be improper under CEQA.

#### **The DEIR Fails To Consider the Proposed Walmart Expansion in the Traffic Analysis**

The Walmart Expansion Project has an EIR (SCH 2010032042) certified December 14, 2011. Approval of the Walmart Project was withheld due to failure of the City Planning Commission to reach findings that the benefits of the project override the significant impacts of the Walmart expansion project that the EIR found. Those impacts included certain parking and landscape nonconformities, the traffic situation involving the U.S. 101 – Talmage interchange and other consideration. If the City implements the currently proposed interchange modifications which were identified as a potential mitigation measure in the Walmart EIR, Walmart could remedy its parking /landscape deficiencies

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and have nothing standing between its project and approval. Or even without changing anything else, with the traffic impacts purportedly mitigated per the already certified EIR, Walmart could refile and potentially convince the Planning Commission that the benefits of the project now outweigh the remaining significant impacts and gain approval under overriding considerations. In fact, much Planning Commission discussion about overriding considerations at its March 14 and April 11, 2012 meetings where the

Commission finally determined that it did not support findings of overriding considerations concerned how easily Walmart could resurrect the project if the City developed a solution to the interchange traffic problem and Walmart made small changes to their plan.

21  
cont.

However, despite the ease with which the Walmart Expansion project could be resurrected, the current Costco Project DEIR has not evaluated the consequences of Walmart Expansion traffic being added to the scene in any of the near term scenarios. This is a critical omission. The DEIR should be revised to include analysis of a near term traffic scenario that assumes the Walmart Expansion does get approved and constructed.

#### **The DEIR Fails To Address the Zoning Changes Needed by the Project Properly**

Part of the Project site is zoned Industrial/Auto Commercial, a zoning category that does not allow retail. In order to approve the Project, this zoning must be changed. Zoning must be consistent with the General Plan. The City needs a General Plan Amendment to change the zoning. As part of the General Plan Amendment, the City must complete a traffic study assessing the consequences and impacts of changes in traffic the specific Amendment would cause. The DEIR has not performed any analysis of whether changing the zoning on the Industrial/Auto Commercial portion of the site to Retail would be more detrimental from a traffic standpoint than development under the current zoning.

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The DEIR discussion of conformance with General Plan Circulation policies, specifically CT 1.1 and CT 1.3 on DEIR pages 3.7-8 and -9 admits that the Project would have

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significant near term and long term cumulative traffic impacts, but claims the Project remains in conformity with those General Plan policies because it offers to pay fair share fee contributions toward identified mitigations for those impacts. However, fee based mitigation must be effective mitigation, which means it is capable of being completed. In this case the fee-based mitigation is not feasible mitigation because there is no enforceable plan to complete the mitigation. In specific, the DEIR's own traffic study finds those traffic impact conditions to be significant and unavoidable because there is no assurance of securing full funding or getting Caltrans approval for the interchange modification mitigation measure. Therefore, the Project is inconsistent with the General Plan. The findings of consistency cannot be made. The EIR needs to discuss the Project's inconsistency with the General Plan and the impacts of this inconsistency.

23  
 cont.

On page 3.7-3, the DEIR asserts that the Project doesn't have to conform to every single policy of the General Plan; that it just needs to overall be judged by the community to be more in furtherance of General Plan policies than it is in obstruction of them. That standard doesn't apply when a Project is directly inconsistent with a fundamental policy of the General Plan. If the Project is inconsistent with a fundamental policy, then the City cannot proceed.

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#### **DEIR Collision Analysis Ignores Critical Location**

The DEIR and its Appendix E reviews collision data for study intersections for the 5 years starting January, 2006 through December, 2010. Data for calendar year 2011 was available shortly after the NOP for the Project was circulated and certainly well before the Appendix E Draft Traffic Impact Study was completed in June, 2012. The 2011 collision data should have been considered in the analysis. More important, by confining the collision analysis to intersections, the traffic impact analysis avoids addressing the most critical traffic safety consideration of relevance to this DEIR. That consideration is whether the queuing on the southbound U.S. 101 off-ramp to Talmage in the interchanges current geometry constitutes such a significant hazard to public safety that it would be inappropriate to approve the Project under findings of overriding considerations without first implementing mitigation improvements to the interchange. The DEIR must examine the collision data for the subject off-ramp and the immediate freeway mainline approach to this off-ramp.

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#### **The DEIR's Consideration of Emergency Access Evades a Critical Issue**

The DEIR's cursory consideration of Emergency access is limited to the specific site of the proposed Project. The DEIR conclusorily asserts that because the site plan includes multiple access points suitable for all vehicle types that the Project would have no impact

on emergency access. However, this issue is not limited to whether there is adequate emergency access onto the specific Project site; it concerns all roadways and intersections that may be affected by Project traffic. If the Project is approved under findings of overriding considerations without implementing mitigation improvements to the interchange or is approved and allowed occupancy before committed mitigations to the interchange can be implemented, the fact that peak hour traffic queues will obstruct the southbound U.S. 101 off ramp to Talmage extending all the way onto the freeway mainline definitely creates inadequate emergency access in situations where emergency vehicles need to make use of that ramp.

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#### **The DEIR's Assessment of Impacts on Bicyclists and Pedestrians Is Cursory and Mitigations Are Trivial**

Although the DEIR identifies that "implementation of the Project would conflict with adopted policies, plans, or programs regarding public transit, pedestrian, or bicycle facilities, or otherwise decrease the performance or safety of such facilities," its mitigation of these impacts is trivial, involving on-site and site-frontage facilities that should be ordinary site plan requirements. The DEIR proposes nothing to address the fact that the traffic mitigation measures proposed for the intersections of Talmage with Airport Park Boulevard and with the U.S. 101 southbound ramps create, even with signalization, hellish crossings for bicyclists and pedestrians.

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#### **Assumed Trip Distribution Inadequately Documented**

The DEIR states on page 3.10-22 the following:

*"The distribution of project traffic was determined based on the population densities in the primary and secondary markets areas identified in "Costco Wholesale Warehouse Urban Decay Analysis prepared in April 2012 by ALH |*

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*ECON. The potential route to and from each market area was determined based on current travel patterns to and from the project area, and a percentage of assigned Project-generated vehicle trips were derived from the share of each market area. These distribution percentages were then applied to the trip generation estimates to determine the number of vehicle trips on each route to and from the market destinations."*

DEIR Table 3.10-8 presents the percentages of Project traffic approaching/departing via major routes as the end result of this process. However, neither the DEIR nor its

Appendix E Transportation Impact Study the actual data and computation steps involved in deriving the results presented in Table 3.10-8. A vast portion of the market area lays to the north that would access and depart the Project via U.S. 101 to/from north of Talmage and an additional large portion of the market area lays generally to the east and would approach/depart along SR 20, ultimately also approaching and departing the immediate Project area via U.S. 101 north of Talmage. It seems odd that, given the size of the portion of the market area that would ultimately approach/depart via U.S. 101 to the north of Talmage, Table 3.10-8 would only show 34 percent of Project trips approaching and departing via this route. Obviously, this distribution percentage is critical because of the queuing problems on the southbound off-ramp to Talmage and the queuing problems on Talmage between that off-ramp intersection and the intersection with Airport Park Boulevard. Please present the initial data and computational steps that translate the market analysis into the end results shown on Table 3.10-8.

28 cont.

#### **Changed Threshold of Significant Traffic Impact at 2-Way Stop Intersections**

It appears that the City has changed the criteria for significant traffic impacts since certifying the Walmart Expansion EIR to eliminate direct consideration of side street delays per 2-way stops, now only considering whether the overall average delay on the combination of all approaches remains within an acceptable level. The implication of this policy is that drivers on the stopped minor approaches could vainly wait forever to find a safe opportunity to proceed without the condition being found to be a significant traffic impact. Is this change in the significance threshold where side street delay is now not even reported in the DEIR a change that was formally adopted by the City Council or is this a convention that was concocted by City staff and consultants in an effort to eliminate the inconvenient need to explain-away nuisance findings of significant impacts?

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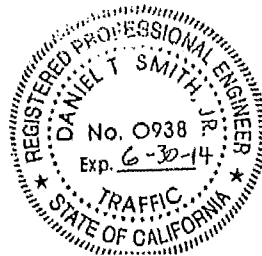
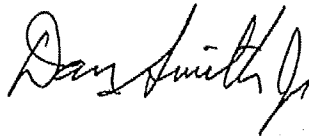
**Conclusion**

This concludes my current comments on the Draft Environmental Impact Report for Costco Project. Because of the many critical defects in the Transportation and Traffic section of the DEIR discussed above, that section should be completely revised and the document should be re-circulated for a full 45 day comment period in draft status. In closing, I emphasize my prior comment that, due to the considerable public safety consequences of traffic queues on the U.S. 101 southbound off ramp to Talmage that would occur if the Project were approved and in operation before an effective mitigation scheme for the interchange area were implemented, the Project cannot reasonably be approved under findings of overriding considerations.

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Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.  
President



Attachment A

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SMITH ENGINEERING & MANAGEMENT

**DANIEL T. SMITH, Jr.**  
President

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**EDUCATION**

Bachelor of Science, Engineering and Applied Science, Yale University, 1967  
Master of Science, Transportation Planning, University of California, Berkeley, 1968

**PROFESSIONAL REGISTRATION**

California No. 21913 (Civil)      Nevada No. 7969 (Civil)      Washington No. 29337 (Civil)  
California No. 938 (Traffic)      Arizona No. 22131 (Civil)

**PROFESSIONAL EXPERIENCE**

Smith Engineering & Management, 1993 to present. President.  
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.  
De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.  
Personal specialties and project experience include:

**Litigation Consulting.** Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

**Urban Corridor Studies/Alternatives Analysis.** Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

**Area Transportation Plans.** Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

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**Transportation Centers.** Project manager for Daly City Intermodal Study which developed a \$7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

**Campus Transportation.** Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

**Special Event Facilities.** Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

**Parking.** Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking.

**Transportation System Management & Traffic Restraint.** Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

**Bicycle Facilities.** Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

#### MEMBERSHIPS

Institute of Transportation Engineers      Transportation Research Board

#### PUBLICATIONS AND AWARDS

*Residential Street Design and Traffic Control*, with W. Homburger *et al.* Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

*Residential Traffic Management, State of the Art Report*, U.S. Department of Transportation, 1979.

*Improving The Residential Street Environment*, with Donald Appleyard *et al.*, U.S. Department of Transportation, 1979.

*Strategic Concepts in Residential Neighborhood Traffic Control*, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

*Planning and Design of Bicycle Facilities: Pitfalls and New Directions*, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.

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Attachment B

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Source Numbers 1-199

Table 4 Monthly Variation in Shopping Center Traffic Percentage of Average Month			
Month	Percentage	Month	Percentage
January	85.3	July	100.8
February	78.1	August	102.1
March	92.0	September	94.8
April	93.2	October	98.9
May	105.4	November	101.5
June	106.0	December	141.8

Sample size: 2

Average gross leasable area: 938,000 square feet

The sites were surveyed between the 1960s and the 2000s throughout the United States and Canada.

### Source Numbers

1, 2, 3, 4, 5, 6, 13, 14, 18, 19, 22, 26, 40, 42, 48, 49, 54, 59, 60, 61, 64, 65, 72, 73, 75, 76, 77, 78, 79, 87, 89, 90, 98, 99, 100, 105, 110, 124, 156, 159, 172, 186, 193, 194, 195, 196, 197, 198, 199, 202, 204, 211, 213, 260, 263, 269, 295, 299, 300, 301, 304, 305, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 358, 365, 376, 385, 390, 400, 404, 414, 420, 423, 428, 437, 440, 442, 444, 446, 507, 562, 563, 580, 598, 629, 658



## Attachment 8



SUPERIOR COURT OF CALIFORNIA  
COUNTY OF MENDOCINO

ENDORSED-FILED

MAY 01 2015

CLERK OF MENDOCINO COUNTY  
SUPERIOR COURT OF CALIFORNIA

FRANCES FROTEAU

Case No. SCUk CVPT 14-63579

UKIAH CITIZENS FOR SAFETY FIRST, a  
California Association, RACHEL LAND and  
PATTY HERNANDEZ

Petitioners

DECISION AFTER COURT  
TRIAL ON PETITION FOR  
WRIT OF MANDATE (CCPS1094.5)

vs.

CITY OF UKIAH, a Municipal Corporation under  
the laws of the State of California, CITY  
COUNCIL OF THE CITY OF UKIAH, and DOES  
1 through 10, inclusive,

Respondents

DAVID E. BABCOCK, dba DAVID BABCOCK  
AND ASSOCIATES, et al.

Real Parties in Interest

STATEMENT OF THE CASE

In this Petition for Writ of Mandate, Petitioners, Ukiah Citizens for Safety First ("UCS"), Rachael Land and Patty Hernandez, have challenged Respondents' ("City") approval of Resolution 2013-35 which certified the Final Environmental Impact Report for the Costco Warehouse Project. ("Project") Specifically, Petitioners contend that:

1. The EIR failed to analyze the Project's energy use.
2. The addendum to the FEIR that was adopted by the City Council on December 3, 2014 was insufficient as a matter of law.
3. The City committed the CEQA error of improperly "piecemealing" by not including the 101/Talmage improvements project as part of the Costco project and analyzing the two projects in one EIR.
4. The EIR's analysis of traffic impacts does not comply with CEQA.



5. The air quality analysis is flawed and relied on inaccurate data.
6. The EIR does not adequately evaluate or mitigate the noise impacts to the surrounding businesses and hotels.
7. The City violated the State's planning and zoning laws by failing to determine that the Project was consistent with the Airport Industrial Park ("AIP") Specific Plan.

For the reasons that follow, the court has determined that the City proceeded in the manner required by law and that the decision made to approve the Project is supported by substantial evidence in the record.

### ANALYSIS

In a case challenging an agency's compliance with CEQA, "[t]he court's inquiry shall extend only to whether there was a prejudicial abuse of discretion. (Public Resources Code §21168.5). Such an abuse is established if the agency has not proceeded in the manner required by law or if the determination or decision is not supported by substantial evidence." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4<sup>th</sup> 412, 426, internal quotation marks omitted). Substantial evidence is "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. (*Laurel Heights Improvement Assn. v. Regents of the University of Cal.* (1988) 47 Cal. 3d 376; *CEQA Guidelines* §15384 (a); *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4<sup>th</sup> 713, 722, 32 Cal.Rptr.2d 704).

A reviewing court does not decide the correctness of the EIR's environmental conclusions, but only its sufficiency as an informative document. (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553; *Save Cuyama Valley v. County of Santa Barbara* (2013) 213 Cal. App. 4<sup>th</sup> 1059). Courts look "not for perfection but for adequacy, completeness, and a good faith effort at full disclosure." (*Sequoiah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal. App. 4<sup>th</sup> 704; *CEQA Guidelines*, §15151). A reviewing court may not independently reweigh the evidence or substitute its judgment for the decision of the agency (*Laurel Heights, supra*). The court must presume that the City's decision is correct. (*Evidence Code* §664; *State Water Control Board Cases* (2006) 136 Cal. App. 4<sup>th</sup> 674).

Petitioners have the burden of affirmatively demonstrating the inadequacy of the environmental review conducted in this case. (*Id.*; see also, *Al Larson Boat Shop v. Board of Harbor Comm.* (1993) 18 Cal. App. 4<sup>th</sup> 729). Disagreements between experts do not make an EIR inadequate. (*Assn. of Irrigated Residents v. County of Madera* (2003) 107 Cal. App. 4<sup>th</sup> 1383). An agency is entitled to choose between differing expert opinions or rely on the opinion of its own staff. (*Oakland Heritage Alliance v. City of Oakland* (2011) 195 Cal. App. 4<sup>th</sup> 884). The court must "...indulge all reasonable inferences from the evidence that would support the agency's determinations and resolve all conflicts in the evidence in favor of the agency's decision." (*CNPS v. City of*



*Rancho Cordova* (2009) 172 Cal. App. 4<sup>th</sup> 603, 613-614. "The issue is not whether the studies are irrefutable or could have been better...only whether they are sufficiently credible to be considered part of the total evidence that supports the findings." (*Assn. of Irrigated Residents*, *supra* at 1401).

Petitioners bear the burden of demonstrating that any errors in the City's environmental analysis were prejudicial. (*Public Resources Code* § 21005(a); *Sunnyvale West Neighborhood Assn. v. City of Sunnyvale City Council* (2010) 190 Cal. App. 4<sup>th</sup> 1351, 1385). An error is prejudicial when an agency fails to comply with a mandatory CEQA procedure or when a report omits information and thereby precludes informed decision making. (*Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal. App. 4<sup>th</sup> 1036, 1046-1047; *Neighbors for Smart Rail v. Exposition Metro Line Const. Auth.* (2013) 57 Cal. 4<sup>th</sup> 439,463).

1. Respondents Adequately Analyzed the Project's Energy Use.

Petitioners contend that the EIR did not directly address the Project's energy use, and in particular, transportation energy use. Petitioners claim that the City failed to calculate the energy use attributable to vehicle trips generated by the Project. Petitioners further argue that there was a failure to calculate the operational and construction energy use of the Project. According to Petitioners, failure to address these issues violated the provisions set forth in Appendix F of the CEQA Guidelines.

There is substantial evidence in the record that the EIR contains an analysis of the Project's energy use in several sections. As set forth in the City's response to comments 8 and 9, "Nowhere in CEQA does it require every EIR to provide an accounting of energy usage in a specific format. The focus of an EIR is on the potentially significant physical effects the project may have on the environment. The DEIR analyzes the usage of energy, including direct and indirect, stationary and mobile. The potential increase in electrical and natural gas usage are discussed in Section 3.9 (see Impact 3.9.8), and a discussion of whether the project would result in wasteful, inefficient, or unnecessary energy consumption, as recommended in Appendix F of the Guidelines.

Most importantly, the EIR analyzes the effects of this energy usage on the existing environment, specifically air quality and greenhouse gas (GHG) emissions. This is consistent with the objective of CEQA that an EIR concentrate on the potentially significant physical effects of a project. Conservation measures and energy efficiency measures, as discussed in Appendix F of the CEQA Guidelines, are discussed in the EIR (see pages 2-8 to 2-9, 3.9-9, 3.9-14, and 3.11-16 to 3.11-18). As explained in the EIR and in the Response to Comment 133-7, Costco routinely includes many energy-efficient or energy-saving design features in its projects, and proposed to do so here for this Project too." (AR 604-605).

Impact 3.9.8 provides: "The Costco Wholesale warehouse Project would not exceed existing gas and electric supply or result in wasteful, inefficient, or unnecessary consumption of energy. The proposed Project would intensify development on the Project site, thereby increasing demand for gas and electric service. On-site employment and uses, such as the warehouse store and tire center, would use gas and electricity. These uses would generate demand for 2.44 million kilowatt hours of electricity per year



(kWh). The Project area has existing distribution facilities and capacity to serve the Project.

The energy consumption demands of the proposed Project would conform to the State's Title 24 energy conservation standards such that the development would not be expected to wastefully use gas and electricity. The proposed Project would also be designed to include several sustainable features. Among these features are regional sourcing of building materials, higher solar reflectivity metal wall panels, reflective roof materials, and tripled-glazed skylights (Costco, 2011). In addition, energy service to the Project site would be provided to meet the needs of the proposed Project as required by the California Public Utilities Code, which obligates electric providers to provide service to existing and potential customers. Since the proposed Project would comply with Title 24 conservation standards, implement additional sustainable features, and be served by the City of Ukiah, the proposed Project would not directly require the construction of new energy generation or supply facilities, or result in wasteful, inefficient, or unnecessary consumption of energy. Consequently, the impact would be less than significant." (AR 949).

2. The Use of an Addendum to Augment and Clarify the Energy Analysis is Authorized by CEQA Guidelines and is Supported by Substantial Evidence.

Subsequent to the certification of the EIR, and the filing of the Petition, the case of *California Clean Energy Committee v. City of Woodland* (2014) 225 Cal. App. 4th 173 was published. In that case, the court held that the City's reliance on California Building Standards Code and Green Building Standards Code (Title 24), did not suffice to address issues of transportation, construction and operation energy impacts and that a more detailed discussion of energy use pursuant to CEQA Guidelines Appendix F was required.

In response to *CCER*, the City adopted an Addendum that contained the required energy use discussion. (CEQA Guideline §15164) Absent the occurrence of new significant impacts which would require a revision of a previously adopted EIR, an addendum is an appropriate procedure to use when clarifying or providing technical detail that does not alter the conclusions previously adopted. (*Fund for Environmental Defense v. County of Orange* (1988) 204 Cal. App. 3d 1538.) The addendum must provide a brief explanation of the decision not to prepare as a subsequent EIR (§15164(e)).

The City met this obligation by providing the following explanation. "This Addendum also clarifies and provides additional discussion of Project energy consumption and electrical utilities. The City is clarifying its determination that "the Project would not exceed existing gas and electric supply or result in the wasteful, inefficient, or unnecessary consumption of energy" in part based on the recent court decision, *CCEC v. City of Woodland* (2014) 225 Cal. App. 4th 173, which was published after the City certified the EIR. That decision held that CEQA requires a more detailed discussion of energy use than was previously understood at the time the EIR was certified. This discussion augments, but does not alter, the conclusions of the EIR regarding the effects of Project-related energy usage. As analyzed below, the approval of the Improvement Agreement by the City and the PSA by the Successor Agency, the minor Project Site Plan revisions, and the additional information on energy consumption do not constitute a substantial change to the project, substantial new information, or



*otherwise require preparation of a supplemental or subsequent EIR under CEQA Guidelines Sections 15162 or 15163. The information set forth herein constitutes only minor changes and additions to the certified EIR. Therefore, preparation of an Addendum is the appropriate approach under CEQA." (SAR 243)*

If the agency's decision to rely on an addendum is supported by substantial evidence in the record, the court must defer to the agency's decision, even if a contrary conclusion can be reached. (*Public Resources Code §§21168, 21168.5*).

The addendum consolidated all of the EIR's energy use analysis into one location and divided the information into four categories.

**A. Project Energy Conservation Measures**

As set forth in both the EIR and Addendum the City identified and adopted energy-related mitigation measures intended to conserve energy and natural resources. (*Mitigation Measure 3.2.2a, AR 528-529, 590*). The mitigation measures were expressly imposed in order to reduce energy consumption and associated GHG emissions. (SAR 253).

*"Parking lot light standards are designed to provide even light distribution and use 20% less energy compared to a greater number of fixtures at lower heights. The use of metal halide lamps provide a color corrected white light and a higher level of perceived brightness with less energy than other lamps such as high pressure sodium. New building materials are typically extracted and manufactured within the region. Pre-manufactured building components, including structural framing and metal panels, are designed to minimize waste during construction. Pre-manufactured metal wall panels with insulation are designed to conserve energy by increasing R-value and solar reflectivity. Building heat absorption is reduced by a decrease in the thermal mass of the metal wall when compared to a typical masonry block wall. Reflective roof material will meet the requirements for the USEPA's Energy Star energy efficiency program. Reflective roofs produce lower heat absorption and thereby lower energy usage during the summer months. Triple glazed skylights are used on the roof to reduce the need for interior lighting. A "daylight harvesting" system monitors and adjusts the mechanical and lighting systems in order to conserve energy. The system includes the skylights, light monitors, energy efficient lighting fixtures, and associated control systems. On a typical sunny day, fewer than one third of the interior lights are needed." (See AR 783-784).*

Further, *"the Heat-Reclaim system, which captures heat from the refrigeration lines and uses it to heat water for the building. High efficiency restroom water fixtures, which result in a water savings of 40% beyond the building standard. Reduced water usage results in a reduction in energy usage, due to the energy needed to pump, clean, and distribute potable water. The draft Title 24 (California Code of Regulations) compliance report for the Project indicates that the above features, plus efficient internal heating and cooling, will result in a building energy performance that is 12% more efficient than the Title 24 performance standards (Title 24 Performance Certificate of Compliance, dated 12/17/13, included as Attachment B). As such, the Project would more than comply with state and federal energy standards, including Title 24 of the California Code of Regulations." (AR 97, 604, 606; SAR 251,253; Mitigation Measure 3.2.2b).* The EIR also included measures to reduce employee vehicle trips and improvements to the bicycle and pedestrian network. (AR 98-99; SAR 253-256)



#### B. Project Construction Energy Use Including Transportation

The City found that Project construction is typical for the region and building site and that there were no unusual circumstances at the site that would require an unusually high construction related energy usage. Both the EIR and Addendum describe the Project building and construction energy usage. Specifically, *"The Heat-Reclaim system, which captures heat from the refrigeration lines and uses it to heat water for the building. High efficiency restroom water fixtures, which result in a water savings of 40% beyond the building standard. Reduced water usage results in a reduction in energy usage, due to the energy needed to pump, clean, and distribute potable water. The draft Title 24 (California Code of Regulations) compliance report for the Project indicates that the above features, plus efficient internal heating and cooling, will result in a building energy performance that is 12% more efficient than the Title 24 performance standards (Title 24 Performance Certificate of Compliance, dated 12/17/13, included as Attachment B). As such, the Project would more than comply with state and federal energy standards, including Title 24 of the California Code of Regulations.*

*Project construction will require grading, utility installation, foundation construction, building construction, paving, and landscaping installation. All construction is typical for the region and building type, and the Project site does not include unusual circumstances that would require unusually high energy usage. Some import of fill will be required in order to allow gravity flow of water and sewer, as opposed to pumping and/or installing extremely deep lines below surface grade- both of which would be more energy intensive.*

*The building system is pre-engineered metal (see Draft EIR pp. 2-8 to 2-9). The metal building system contains 80% recycled content and is itself 100% recyclable. The Project design team estimates that by designing a metal warehouse, fewer building materials are consumed in construction compared to full height masonry. Considered within the context of all construction materials, including 1000 truck trips for fill and 280 truck trips for the slab and foundation, the overall reduction in haul truck trips is 8.5% as compared to a full height masonry building. In addition, building material deliveries would be reduced by 71.5% (50 truck trips for a pre-engineered metal building with a CMU foundation versus 175 truck trips for an all-CMU structure). Therefore, fewer fossil fuels are consumed in transportation, due to the need for less material, under the Project as opposed to a more conventional design. It is further noted that these material trips are well below the standard CalEEMod assumptions for construction emissions for a typical project of similar size." (AR 783-784, SAR 251)*

#### C. Project Operational Energy Use Including Transportation

As stated above, the City determined the Project would consume electricity of approximately 2.44 million kilowatt hours per year. This is based on a 148,000 square foot retail warehouse. (AR 949-950, Impact 3.9.8.). The City also determined that the analysis demonstrated that the Project is within a typical range for a Costco Warehouse. The City also analyzed fuel consumption before and after mitigation measures. (SAR 253; Mitigation Measure 3.2.2a).

#### D. Renewable Energy Sources.

There is substantial evidence in the record to dispute Petitioners contention that the City failed to consider the use of renewable energy sources for the Project.



"In addition to the information contained in this Draft EIR section, the City notes that the energy sources for the electricity provided by the City of Ukiah Utilities Department includes an unusually high percentage of renewable energy sources compared to the state average. Ukiah's 2011 energy supply included 49% eligible renewable sources, compared to a 2010 statewide average of 14%. Large hydroelectric energy, while not considered an "eligible" renewable source for purposes of the California Renewable Portfolio, is nevertheless a clean energy source, and at 25% is a substantial component of Ukiah's energy mix. In addition, on-site renewable energy sources have been considered. The Project would include pre-wiring and an engineered roof to allow for future solar energy panels. It is Costco standard practice to determine the feasibility of installation of rooftop solar at the time of the completion of warehouse construction and beginning of operation (anticipated build out year is 2017). Factors evaluated by Costco include cost of the solar system, tax incentives, how much power the system will produce and the utility cost of electricity. For the Ukiah Costco warehouse, it is estimated that rooftop solar would only contribute to approximately 25% of the building electricity needs. In contrast, as noted above, Ukiah's 2011 energy supply included 49% eligible renewable sources and an additional 25% from large hydroelectric - approximately 75% from renewable sources. Thus, renewable energy sources provide the vast majority of the Project's energy demand." (AR 3192, SAR 257-258).

Petitioners contend that the City utilized the wrong thresholds of significance for the Project's energy use. Appendix F of the Guidelines does not suggest any particular threshold to be used in this analysis. Moreover, case law is clear that the City has the discretion to determine an appropriate standard of significance in an EIR as long as the decision is supported by substantial evidence. (*Save Cuyama Valley, supra*, at 1067-1068. The fact that Petitioners disagree with the City's decision is insufficient to establish an abuse of discretion. (*North Coast Rivers Alliance v. Marin Municipal Water Dist. Board of Directors* (2013) 216 Cal. App. 4th 614).

The City quantified the energy usage and demand and found that the project as constructed, "will result in a building energy performance that is 12% more efficient than the Title 24 performance standards (Title 24 Performance Certificate of Compliance, dated 12/17/13, included as Attachment B). As such, the Project would more than comply with state and federal energy standards, including Title 24 of the California Code of Regulations." (AR 783-784, SAR 251). The City's energy analysis including the mitigation measures to be implemented complies with the requirements of Appendix F and the holding in *California Clean Energy Committee v. City of Woodland, (supra)*.

### **3. Respondents Did Not Commit CEQA Error of Improper Piecemeal Review by Failing to Include the 101/Talmage Improvements/Interchange Project As Part of the Costco Project and Analyzing the Two Projects in One EIR.**

Petitioners contend that the 101/Talmage Improvement Project should have been included as part of the Costco project and analyzed together in one EIR. The court disagrees with Petitioners' position.

It is well settled that CEQA prohibits piecemeal review of the significant environmental impacts of a project. (*Berkeley Keep Jets Over the Bay Com. V. Board of Port Cmrs.*



(2001) 91 Cal. App. 4<sup>th</sup> 1344). "Agencies cannot allow 'environmental considerations [to] become submerged by chopping a large project into many little ones—each with a minimal potential impact of the environment—which cumulatively may have disastrous consequences.'" *Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal. App. 4<sup>th</sup> 1209 (citations omitted). The court in *Laurel Heights* (*supra*) set forth a piecemealing test and held that "[A]n EIR must include an analysis of the environmental effect of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects." (*Laurel Heights, supra* at 396). "Under this standard, the facts of each case will determine whether and to what extent an EIR must analyze future expansion or other action." (*Ibid.*) The cases "tend to be fact driven." (*Banning, supra*).

Contained in the record is the City's description of the 101/Talmage improvements.

*"The City of Ukiah Talmage Road Interchange Project being undertaken and designed as a City of Ukiah Project. The purpose of this project is to improve the operation at the intersection of Airport Park Boulevard/Talmage Road and Talmage Road/U.S. 101 Southbound ramps to better serve the Airport Industrial Park and the surrounding area. Airport Industrial Park is a regional serving retail and commercial center that provides goods and services to City residents as well as the greater region."* (AR 2196).

According to City staff, *"The issue of the independent utility of the proposed U.S. 101/Talmage Interchange Improvements, which has been considered by the City Council separate from the proposed Costco project, was addressed by City staff at the Hearing of December 4, 2013 (incorporated here by reference). The City Council has undertaken a design, funding, and environmental review process for the proposed improvements. While the proposed improvements would provide a feasible means to mitigate a potentially significant impact related to project traffic, the improvements are necessary to address future traffic deficiencies, with or without the proposed project. This need has been documented in the analysis done for the improvements, as well as the Costco Final EIR, November 2013, SCH#2011112025, the Final EIR for the proposed (but not approved) Walmart Expansion, SCH#2010032042, 2005 Mendocino Council of Governments Route 101 Corridor Interchange Study, and the Ukiah Valley Area Plan prepared by Mendocino County."* (AR 531)

*"The City of Ukiah is pursuing the Talmage Road Interchange Improvements as a separate City-sponsored project, because those improvements are required for the build-out of the Redwood Business Park, with or without the Project."* (AR 14).

Petitioners contend that the project agreements between the City and Costco require, as a condition of approval, the completion of the interchange improvements. Petitioners argue that based on the condition of approval, the activities are interrelated and constitute the "whole of an action" which cannot be piecemealed. (*See Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonoma* (2007) 155 Cal. App. 4<sup>th</sup> 1214).

Section 302.1 of the Development Agreement as it relates to the interchange improvements specifically provides that, *"Costco acknowledges that in addition to discretion reserved by City elsewhere in this Agreement, including, without limitation, Sections 104 and 202 hereof, City expressly retains and reserves all discretion to (i) modify the City Work as it determines, in its sole discretion, may be necessary to comply*



with the CEQA, (ii) select other feasible alternatives to the City Work to avoid significant environmental impacts, (iii) balance the benefits of the City Work against any significant environmental impacts prior to taking final action if such significant impacts cannot otherwise be avoided, and/or (iv) determine not to proceed with the City Work." It is clear from this language that the City has retained its discretion to consider the interchange project independently and is not required to even complete the project. The interchange project is a separate and distinct project that stands to benefit the Redwood Business Park and surrounding area.

The court finds that the facts in the instant matter differ from the factual scenario set forth in *Tuolumne, supra*. In *Tuolumne*, the proposed home improvement center was conditioned upon a road improvement that was to serve the center. The proponent of the both projects was the same entity, Lowe's. In the instant matter, the traffic interchange project is not directly adjacent to the Costco project it is approximately a quarter of a mile away from the proposed Costco site. The City is the proponent of the interchange project. The financing mechanism set forth in the City/Costco Development Agreement does not support a finding that the interchange project is dependent on the construction of a Costco store. (SAR 154). Based on the factual scenario in this case, the holding in *Banning*, supports the City's decision to conduct separate environmental reviews. As stated in *Banning*, the key word is consequence. Simply put, the interchange improvement project is not a consequence of the Costco project.

#### 4. Respondents Adequately Analyzed and Mitigated the Potential Traffic Impacts

Petitioners contend that the EIR does not include a traffic study that estimates and evaluates the vehicular trips to and from the proposed Costco that would use the US101/Talmage Road Interchange. Petitioners argue that the trip distribution forms the basis for determining the number of peak-hour trips that will use the interchange and, if the trip number is understated, then the improvements may not be adequate. Petitioners focus on the fact that the City's traffic expert utilized information from the traffic analysis prepared for a different project involving the proposed Wal Mart expansion (a project that was ultimately rejected by the City). According to Petitioners, reliance on that study renders the independent traffic study for the Costco project unacceptable for CEQA purposes.

The EIR contains a detailed analysis prepared by a licensed traffic engineer, W-Trans. (AR 952-989; AR 1904-2063) (DEIR Appendix E- Traffic Impact Analysis)). This engineer had previously prepared the study for the Wal Mart Expansion Project. The engineer considered information utilized to prepare the study for the Wal Mart expansion in preparing the analysis of the impacts from the Costco project. In his expert opinion, the engineer determined that the information contained in the Wal Mart expansion study was relevant to the Costco project. (AR 3304-3309-8; AR 3350-3354). Again as stated above, the issue is not whether the studies are irrefutable or could have been better, the study need only be "sufficiently credible to be considered as part of the total evidence that supports the agency's decision." (*Assn. of Irrigated Residents, supra*.) The agency's traffic analysis conducted by an expert is owed deference. (*National Parks and Conservation Assn. v. County of Riverside (1999) 71 Cal. App. 4th 1341*). A disagreement among experts regarding the methodology utilized does not constitute a basis for overturning the agency's decision. (*Laurel Heights 1, supra*, 47 Cal. 3d at p. 409.)

The record is clear that the City's expert utilized information from the earlier study but that was not the only basis for the conclusions made in the Costco EIR.



*"If you recall, I explained the process a little bit, that -- that testimony by me was not meant to be new information, just to give you perspective of what we go through in determining where traffic comes from and what are the routes that they might take to get to the site and sort of the history of my familiarity with -- with the site. So it was not meant to be new information, just to provide some additional background for you in responding to their comments. As I said, last time the development of the distribution assumptions where traffic goes to and from its not a specific science, it's an art and science, takes a lot of human factors in to play as well as data and it's pretty common practice to utilize data that's available from other sources or data that's available from other nearby traffic studies. So yes we did start with the Wal-Mart Traffic Study Assumptions. We did consider the new market study of the Costco Project. We did consider what -- how existing traffic from the Airport Business Park distributes out, how much goes to the freeway, how much goes to local streets. We did consider that Costco does -- the type -- when people go to a Costco especially from faraway it's not a daily trip you're gonna [sic] make, it's an outing. There's likely to be some of those trips that are gonna [sic] use other -- stop in other places in Ukiah since it is the County Center to do other types of business so we wanna [sic] take that into account." (AR 3350-3353)*

Petitioners contend that a different trip distribution method should have been used. This criticism however, does not establish that the City failed to conduct an adequate traffic study. In fact, the City's own expert reviewed the allegation made by Petitioners' expert and determined that if the City were to assume an increase in trips, as Petitioner suggests, the ultimate outcome would not be different as the mitigation measures would be more than sufficient to reduce the impact to less than significant.

*"So it's our opinion that what is being suggested in the letter is different than we assumed. That's not surprising given the process that we all go through in figuring out those numbers. But what I did wanna [sic] -- what I did do, okay, is this keeps coming up again and again is that we should've assumed more traffic on -- on 101. So we did just to test that their suggestion, we did do an analysis and I'm gonna [sic] put together a memo just summarizing those results and I'm gonna [sic] put that on the record. Basically what we did is we took the worst case condition that's our future with the Costco project during the weekday p.m. peak hour. If you recall, I had testified before there's about 49 percent of the Costco traffic came from the interchange itself with about 34 percent coming from 101 to the North. What we did in this side analysis detest their suggestions was we -- we increased the traffic to and from North on 101 by 50 -- 50 percent, okay so we assume -- we actually assume 50 percent of the Costco traffic would utilize the 101 ramps to and from the North. That's about a 50 percent increase from 34 to 50. So about 65, roughly two thirds of the traffic to Costco would be coming from the interchange itself. And at the -- the mitigate -- the new ramp intersection of the ramps, what is currently being designed by the City and Caltrans at a new traffic signalized location and with that mitigated intersection in the EIR you'll see the numb -- there's two numbers I show, and one -- the first is the Draft EIR quoted a delay in level surface -- 24.84 seconds level service C, that's in the EIR as the mitigated level service. And then with this added traffic to the freeway we're at 27.6C. So two the three seconds increase in delay, level service C. Both are still acceptable. We evaluated queuing conditions and there's an additional sheet that shows the queuing calculations that the queuing is still within the storage that would be provided by the -- the design to new intersection as well. So in -- in summary our analysis does show there's still a slight increase in delay if we had assume more traffic but only two or three more seconds, still well within the*



*acceptable range and that's again what is being designed by the City and Caltrans." (AR 3353-3354)*

The record establishes that the City's expert prepared a comprehensive traffic study (AR 1904-2063). A detailed traffic impact analysis section was included in the EIR along with extensive responses to comments. (AR 952-989; AR 11106-11164; 11165-11169). The City Council also heard testimony from the expert traffic engineer at three separate meetings. (AR 3163-3166; 3304-3308; 3350-3354). There is substantial evidence to support a finding that the traffic analysis was adequate and that the City Council was fully informed at the time they made their findings and decision.

#### 101/Talmage Interchange Design Exceptions

Petitioners contend that the EIR failed to disclose the design exceptions for the proposed 101/Talmage Road Interchange. There are two segments to the Road Interchange improvements. A portion of the improvements are within City control and the other is subject to the approval of CalTrans. Due to the uncertainty of funding for the improvements at the time the EIR was certified, the City determined that the improvements mitigation was fiscally infeasible and that the traffic impacts were significant and unavoidable. The City adopted a Statement of Overriding Considerations. (AR 14; 966; 531; 3241). Petitioners do not challenge the SOC. The record contains evidence that the City and CalTrans had many consultations regarding the design of improvements. (AR 530; 977; 11007). It was understood that design exemptions would ultimately be necessary but those exceptions were not precisely known at the time. At the time the EIR was certified, although no design approval had been received, CalTrans had reviewed the proposed mitigation measures and advised the City that:

*"We have completed analysis of the proposed mitigation measures discussed in the DEIR. We consulted GHD and W-Trans to obtain current preferred design alternative concepts and model output information necessary to perform analysis. Our evaluation focused on the primary mitigation measures pertaining to State owned facilities including:*

- > Talmage Road Interchange Improvements*
- >- Reconfiguration of US 101 southbound (SB) off-ramp loop*
- >- Signal installation at intersection of US 101 SB off-ramp and Talmage Road*
- >- Installation of two westbound left-turn lanes (WBL) at intersection of Talmage Road and Airpmt Park Blvd.*

*We conclude that the mitigation measures proposed in the DEIR adequately mitigate projected traffic impacts on State facilities. Therefore, we request that the proposed mitigation be required as a condition of approval for the project. Details regarding the technical analysis can be provided upon request." (AR 733)*

The City's certification of the EIR without CalTrans approval or design exceptions is not fatal and a finding that the impacts were significant and unavoidable along with a Statement of Overriding Considerations was appropriate. (*Tracy First v. City of Tracy (2009) 177 Cal. App. 4th 912*). The court also finds that there is sufficient information contained in the EIR regarding the 101/Talmage Improvements mitigation.

#### 5. The EIR Contains an Adequate Air Quality Analysis



Petitioners contend that the EIR underestimates the Project's air pollution impacts by assuming a low average of vehicular trip distance to the Costco store. Petitioners question the methodology utilized by the City's expert. Petitioners also argue that there was a difference in pass-by rates used for the traffic analysis and the air quality analysis.

The traffic analysis used a 37% pass-by rate for both Project uses combined (warehouse and gas station) (AR 1934). The air quality analysis used the CalEEMod Default of 15% for the warehouse and 59% for the gas station (AR 1134). According to the City's expert the use of the air quality pass-by rate resulted in a more conservative analysis.

*"[A] 15% pass by rate was used in CalEEMod. This is the normal default setting and was not adjusted upwards in order to provide a more conservative analysis (see discussion below). Commenter's assertion that overestimating the mileage on diverted trips represents a significant new impact. Given the uncertainty in actual trip lengths, the EIR essentially constructs a worst case scenario. The assertion that the trip lengths for some trips, with correspondingly lower vehicular air emissions, represents a new impact is not correct. It is likely that the actual mileage, and vehicular air emissions, will be lower than the EIR estimates. This would represent a reduction of a previously identified significant impact.*

*Commenter questions the use of the CalEEMod model default trip lengths, including the use of the Urban Home-Shopping trip of 7.3 miles for Mendocino County trips. As noted in the FEIR, the longest trip lengths in the model were used for each category of trip in order to ensure a conservative analysis. The commenter (as shown in the last sentence on page 7) seems to confuse maximum trip length with average trip length. The average trip lengths represent the total mileage for all visitors, divided by the number of individual trips. Thus, a 7.3 average trip length may represent a shopper who travels 3 miles, and one who travels 11 miles. The most distance heavily populated residential areas in the City of Ukiah are less approximately 3 miles from the Costco (and several areas are much closer). The market area, as disclosed in the EIR, and discussed by several commenters on the DEIR, is much larger. However, it makes intuitive sense that most of the shoppers for a store, even a regional store, will be in or adjacent to the community in which that store is located. In addition, the closest shoppers are the most likely to make a single-purpose trip to the store, as opposed to linking trips (making more than one stop in the project area, for those who have travelled further). Thus, the longest default average in the model is used. Other commenters have suggested that an average geographic distance, or even the maximum geographic distance, to the edge of the market area should be used. This does not take into account population density and the location of potential shoppers.*

*Finally, and most importantly, approximately 17% of the project trips would be redirected from the existing Santa Rosa and Rohnert Park stores. Given that the Santa Rosa store is approximately 60 miles from Ukiah, a trip originating in Ukiah to the proposed Ukiah store location that would otherwise have gone to Santa Rosa or Rohnert Park would have a net reduction of 60 miles. For example, an existing trip from Willits to the Santa Rosa Costco, compared to the proposed project site would be reduced from 90 miles to 30 miles. Given the enormous technical and financial difficulty in modeling each and every trip origin and destination within the market area, the most realistic and supportable assumption was to use the maximum default trip length in the air quality model. In addition, the lower standard modeling assumption of 15% for the pass-by rate was used, rather than the 37% used Commenter recommends use of a 33, 44 or 66 mile*



*average trip length but does not offer evidence demonstrating that this would be clearly more reasonable than the assumptions used in the model."* (AR 2762-2763)

Again, as stated previously in this opinion, the City is entitled to rely on its expert and the Court must defer to the City. (*CEQA Guidelines 15151; Irrigated Residents, supra*, 107 Cal. App. 4<sup>th</sup> at p. 1397). The EIR contains a detailed analysis of project-related emissions and impacts. (AR 802-819 (*DEIR Air Quality Impact Section*); AR 116-1250 (*Appendix B (Air Quality Data)*.) The City's expert adequately addressed the concerns regarding the use of the air quality pass-by rate. It was a methodology that the expert determined would be best to utilize in the context of the air quality analysis.

It is also clear from the record that the decision makers were advised of the disagreement between the City's expert and the expert retained by Petitioners. (AR 2762). "An EIR must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." *Association of Irrigated Residents, supra* 107 Cal. App. 4<sup>th</sup> at 1390 citations omitted. Although Petitioners' expert disagrees with the conclusions reached in the EIR, if there is substantial evidence to support the City's position it will be upheld notwithstanding contrary evidence in the record (*North Coast Alliance, supra*, 216 Cal. App. 4<sup>th</sup> at 643 and cases cited therein). "The issue is...whether the agency relied on evidence that a reasonable mind might accept as sufficient to support the conclusion reached in the EIR." (*Id* at 642, citations omitted). The City determined that there would be significant and unavoidable air quality operational impacts as a result of vehicle trips. There is substantial evidence in the record to support the City's conclusions.

#### 6. The EIR Contains an Adequate Analysis of the Project's Noise Impacts.

Petitioners contend that the EIR's conclusions about the impact of the Project's traffic noise is not supported by the information contained in the EIR. Specifically, Petitioners argue that the noise modeling is flawed, the baseline noise measurements are not adequate, there was a failure to identify and evaluate nighttime sleep disturbance related to the Project's added truck traffic, and the EIR erred in finding that the Project will not have a significant impact on the noise environment. The court disagrees with Petitioners.

##### Noise Modeling

Petitioners contend that the noise modeling did not conform to the Caltrans Technical Noise Supplement ("TeNS") Manual and that failure to do so, renders the results inadequate. According to the City's expert the TeNS manual is not an official policy, standard or regulation.

*"The commenter appears to hold the TeNS Manual as the concrete framework for noise analyses and suggests that impacts that do not follow its guidance are flawed. However, the TeNS Manual was cited in the DEIR as reference to general concepts pertaining to noise, such as general attenuation rates, but was not used as the basis for impact significance. TeNS is not a requirement for adequate analysis under CEQA. As stated in the 1998 TeNS Manual on page N-1, specifically the underlined text (emphasis included in the TeNS Manual): "The purpose of this Technical Noise Supplement (TeNS) is to*



*provide technical background information on transportation-related noise in general and highway traffic noise in particular. It is designed to elaborate on technical concepts and procedures referred to in the Caltrans Traffic Noise Analysis Protocol (the Protocol). The contents of this Supplement are for informational purposes only and unless specifically referred to as such in the Protocol they are not official policy, standard or regulation. The procedures recommended in TeNS are in conformance with 'industry standards'. This document can also be used as a 'stand alone' document for training purposes, or as a reference for technical concepts, methodology, and terminology needed to acquire a basic understanding of transportation noise with emphasis on highway traffic noise."*

*As noted above, the TeNS Manual is "not official policy, standard, or regulation". Rather than using TeNS as the basis of analysis for the DEIR, underlying algorithms included in the FHWA Traffic Noise Prediction Model were incorporated into the DEIR traffic impact analysis. As discussed in response to Comment 112-2 in the FEIR, modeled traffic noise was used as the basis of analysis, which incorporates assumptions of the traffic study, which did include traffic count data, as well as future traffic projections. The TeNS manual includes recommendations, not requirements, and does not confer credibility nor accuracy to an analysis by default. Construction truck vibration is discussed in response to Comment 130-23." (AR 11177, 11178).*

The City utilized the FHWA Model as required by the City's General Plan. (*Endangered Habitats League v. County of Orange* (2005) 131 Cal. App. 4th 777; General Plan required application of Highway Capacity Manual methodology to assess traffic impacts).

Petitioners further contend that since the TeNS Manual was not used, the noise model was not properly calibrated. There is evidence in the record however, that the City's expert addressed this issue and adjusted accordingly.

*"Notably, since the LTI measurement was unattended and likely captured more than just roadway noise, it was not used to calibrate the traffic noise model. Rather, the model was based on the traffic study, which incorporated traffic count data and projections of future traffic on the roadway network. The difference in roadway volumes and associated noise for Airport Park Blvd south of Talmage and Airport Park Blvd north of Commerce Dr. is the result of patrons to the commercial uses (such as Walmart). Since the Hampton Inn is directly across from the Walmart entrance, the traffic noise exposure at the hotel would be represented by the Airport Park Blvd south of Talmage segment. In addition, the traffic noise model was revised to reflect correct speed limits on several of the roadways, and to estimate traffic noise on Airport Park Blvd south of Talmage at about 35 feet from the roadway centerline to better characterize noise at the two hotels in close proximity (see revised Table 3.8-6). In summary, the baseline noise either increased or decreased slightly on the revised roadways depending on the corrected speed limit. However, the incremental change in noise after these model revisions would not change along the roadways. The updated Table 3.8-6 and supporting traffic noise model calculation sheets are included in Chapter 4 of the FEIR." (AR 577).*

Petitioners' contention that the quality of the expert work performed on behalf of the City was inadequate, is based on the opinion of Petitioners' own expert. "Disagreements among experts does not make an EIR inadequate. (citing Guidelines, § 15151; *Association of Irrigated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1390, 133 Cal.Rptr.2d 718 [When experts in a subject area dispute the conclusions reached by other experts whose studies were used in drafting the EIR, the EIR need only summarize the main



points of disagreement and explain the agency's reasons for accepting one set of judgments instead of another].) Technical perfection is not required; we look not for an exhaustive analysis but for adequacy, completeness, and a good-faith effort at full disclosure. citing *Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351, 368, 7 Cal.Rptr.2d 307.)" (*Eureka Citizens for Responsible Gov't v. City of Eureka* (2007) 147 Cal. App. 4th 357).

Again, the City is entitled to rely on its experts; and, there is sufficient evidence in the record to explain the methodology utilized for the noise modeling.

#### Noise Baseline

Petitioners again question the methodology utilized to take the baseline measurements. The record supports a finding that the sound measurements were adequately performed and are reflective of the noise sources in the ambient environment. *"Metrosonics Model db308 sound level meters were used to measure the existing ambient noise levels at various locations around the proposed Project site. The meters were calibrated to ensure the accuracy of the measurements. On November 14th, three shmi-term (ST) measurements were conducted near sensitive receptor locations. Environmental conditions were approximately 65 degrees with winds of 0-5 miles per hour. Long-term (L T) measurements were conducted from November 15th through November 17th. The noise measurement results are presented below in Table 3.8-1. Notable noise sources are listed in the column on the right. Noise meter locations are shown in Figure 3.8-2. Long-term noise plots are shown in Figures 3.8-3 through 3.8-5." (Charts omitted, AR 918-919).*

Petitioners argue that the sound measurements are not adequate and the EIR does not contain adequate sound level data because of the contaminating noise sources in the hotel parking lot. The City's expert addressed this criticism and explained its reasons for accepting one judgment verses another. *"As discussed above, the noise monitoring data gathered and presented in the DEIR shows the ambient noise environment in the proximity to the noise meter, which could include some hotel parking lot noise, as well as the inflow and outflow of vehicles from the Walmart parking lot. However, this monitoring data represents the ambient noise in that area. The Leq, not the L10, was used as the criterion for impact determinations. The commenter does not provide valid conclusions to support an assertion that the data is "fatally flawed". If the meter were placed further from the hotel, it would provide a representation of the ambient noise environment in that alternative area, and depending on its distance from the hotel, would likely not be representative of the ambient noise environment at the hotel. However, as discussed in response to Comment 112-2 in the FEIR, modeled traffic noise was used as the basis of analysis rather than the monitored noise, and incorporates assumptions of the traffic study, which did include traffic count data, as well as future traffic projections. Thus, the project would not have a substantially greater impact than set forth in the DEIR." (AR 11179).*

#### Noise Analysis Relating to Nighttime Sleep Disturbance

Petitioners argue that the impact of substantial temporary or periodic increases in sound levels was not properly evaluated as related to heavy trucks passing by three hotels. Petitioners contend that the impacts of these noise sources are significant because of the effect on sleep.



In evaluating the potential for sleep disturbance the EIR reviewed the likelihood for interior hotel room noise and found that the interior noise levels are not expected to exceed the California Noise Insulation Standard of 45dB.

*"The interior noise level standard of 45 dbA Ldn, per the California Noise Insulation Standards (Title 24, California Code of Regulations), was used to evaluate potential sleep disturbance. Sound Exposure Levels (SEL), which represents acoustical energy during a single noise event compressed into a period of one second, are typically applied to aircraft flyovers or can be incorporated into an analysis to determine Leq or Ldn. The commenter asserts that the night time heavy truck traffic on Airport Boulevard would double, but does not include data to support this conclusion. Additional information and interior noise assessment for the hotels along Airport Boulevard was included in response to Comment 112-2 of the FEIR." (AR 11178)*

*"Exterior levels along Airport Park Boulevard adjacent to the Hotels are not expected to exceed 69 dB Ldn. Traffic noise levels at the Hotel outdoor activity areas are not expected to exceed the 65 Ldn set in the General Plan (Table 3.8-2) due to shielding by the building itself (at the hotel on the south end of Airport Park Boulevard). Standard commercial/residential building construction would be expected to provide exterior to interior noise attenuation of at least 25 dB with windows and doors closed. Therefore, interior levels are not expected to exceed 45 dB Ldn." (AR 931)*

The City's expert further determined that the addition of Costco trucks is not expected to result in sleep disturbing impacts since the existing noise environment includes truck traffic from other business.

*"The Cumulative scenario included development and associated traffic on the roadway network for the future year 2030, and as shown in Table 3.8-6, the Project would result in an even lesser increase in traffic noise. The addition of Costco trucks is not expected to result in significant sleep-disturbing impacts at the hotels since nighttime delivery trucks already occur on Airport Park Blvd for the existing commercial uses (such as Walmart) and are part of the existing noise environment. Restricting delivery trucks to the daytime hours would not be a feasible mitigation based on scheduling of deliveries and lack of a restriction enforcement mechanism. Furthermore, the Hampton Inn and Fairfield Inn are modern hotels that would have been constructed per Title 24 standards and thus designed to maintain appropriate interior noise levels." (AR 577)*

Petitioners cite *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal. App. 4<sup>th</sup> 1344, to support their argument that that the impact of substantial temporary or periodic increases in sound levels was not properly evaluated as related to heavy trucks passing by three hotels. In *Berkeley*, the court found that the EIR failed to provide the most fundamental information about the project's noise impacts, specifically, the number of additional nighttime flights, the frequency of the flights and the effect on sleep. Here the EIR included an analysis of the ambient noise environment, and a finding that truck trips amount to 10 trips on an average weekday at limited times. The subject EIR also determined that the hotels are designed to maintain appropriate interior noise levels. The impact of truck traffic as it relates to sleep was adequately analyzed.

There is substantial evidence to support the City's Noise Impact Determination



Petitioners contend that the Project will have a significant traffic noise impact on Airport Park Boulevard south of Talmage Road, as well as on Airport Park Boulevard north and south of Commerce Drive. The evidence in the record does not support Petitioners' argument. The City's expert acknowledged that existing exterior noise levels exceed the General Plan Noise Element Standards. Because of this, the expert utilized a methodology to determine increases for sensitive receptors and the interior noise level maximum.

*"Table 3.8-6 in the DEIR notes that the incremental increase in noise on the roadway segment with these hotels (Airport Park Blvd south of Talmage Rd) would be about 1.8 to 3.1dBA (Airport Park Blvd. north of Commerce Drive, for Existing versus Existing plus Project. While this noise level would exceed the FICON criterion of 1.5dBA in an existing environment greater than 65dBA, and is therefore potentially significant on the face of it, the fact that the building is for transient/temporary lodging (i.e., patrons would not experience a significant change in the noise environment since they are not long-term residents) rather than residential units, and the general plan recognizes that external noise exceedances may be acceptable if the internal level of 45dBA is maintained, the noise level increase was determined to result in a less than significant impact. The exterior noise level already exceeds the general plan standards, under existing conditions (including the balconies referenced by the commenter). The FICON standards were used to identify potentially significant increases for receptors. The interior noise levels were considered, with a standard of 45dBA (a standard reflected in both local policy and state building regulations). Residential uses, in contrast to hotels, are more affected by outdoor noise (which is reflected in the general plan language allowing higher exterior noise levels if the interior noise standard of 45dBA is maintained). As described below, the 45 dB interior noise level is maintained, and the impact was therefore considered less than significant." (AR 576).*

Petitioners take issue with this analysis contending that the General Plan does not allow for higher exterior noise levels if the interior noise standard of 45dBA is maintained, unless available exterior noise level reduction measures have been implemented. While Petitioners are correct in citing the language from the General Plan, the study prepared by the City's expert concluded that the traffic noise levels already exceed the General Plan requirements without the Project and, there would be no significant change in the noise environment because individuals staying in the hotels are not long term residents. The distinction made between hotels and residential uses was not unreasonable. The GP interior noise standard of 45dBA is the same for residences and hotels. The City's expert also determined that the interior noise standard of 45dBA is maintained and could be less than 45dBA based on the age of the hotels and construction information received. (AR 11971). Further, the hotels outdoor activity areas are not expected to exceed the 65 LDN set in the General Plan. (AR 931). This opinion is based on the fact the buildings shield the outdoor areas and is not speculative or unrealistic. As stated repeatedly in this opinion, Petitioners' objection to the methodology utilized to support the conclusions made by the City does not make the analysis inadequate. The City did not unreasonably rely on the conclusions of its experts.

The court finds that the City's determination is supported by substantial evidence.

7. The City was not required to make a Determination that the Project is Consistent with the Airport Industrial Park Specific Plan



Petitioners contend that the City never amended the Airport Industrial Park Specific Plan to make the changes necessary for the Costco Project to conform to the Specific Plan.

According to City staff, the Airport Industrial Park Specific Plan was never properly adopted and, even if it had been, it was superseded by the 1995 Ukiah General Plan.

*"1981 Airport Industrial Park Specific Plan: On January 21, 1981, the City Council adopted a Specific Plan for the Airport Industrial Park by a roll call vote rather than by Resolution or Ordinance. In terms of land use, the stated development concept found in the first paragraph on page 18 of the document was for a planned industrial office/commercial complex where individual uses should be allowed to locate anywhere within the industrial park provided they do not adversely affect adjacent land uses." Soon thereafter, the City adopted Resolution 81-59 which established specific regulations applicable to development within the Airport Industrial Park. The specific regulations in the Resolution were more specific than those contained in the 1981 Specific Plan and included the Circulation Plan and Generalized Land Use Map from the Specific Plan. The planned development Resolution was amended a number of times in the 1980's and early 1990's to modify the land use classifications contained on the planned development Generalized Land Use Map.*

*In 1992 after adopting new City Code (zoning) regulations for the establishment of Planned Developments, the City adopted a precise Planned Development Ordinance regulating development within the Airport Industrial Park. The Ordinance included text and diagrams specifying the distribution, location and extent of land uses, specific development standards, prohibited uses, required public utility easements, street design standards, signage requirements, design guidelines, landscaping and open space requirements, and discretionary permit review requirements. Section four of the Ordinance indicated that the Planned Development "provides a mixture of industrial and commercial uses within a Planned Development (PD), consistent with the City of Ukiah General Plan, as amended, which allows said mixture, and which is accordingly shown on the City of Ukiah General Plan Land Use Map for the subject Assessor's parcels." In 1995, the City adopted a new General Plan and designated the AIP as a "Master Plan" area with the knowledge it had already adopted a precise Planned Development Ordinance regulating growth and development within the AIP. The General Plan contains goals and policies addressing Master Plan Areas and allows for them to include a variety of land uses including "mixed use developments," which commonly include retail commercial, office, residential, etc. General Plan Land Use Element includes Goal LU-6 "Utilize Master Plan Areas to meet precise planning needs" and associated Policy LU-6.1 "Allow the use of Master Plan Areas to provide for mixed use development, and other precise-planning needs for larger ownerships or groups of ownerships." the Airport Industrial Park Planned Development provides for mixed use and other development that meets the precise needs of the City, including retail commercial land uses, and therefore is consistent with both Goal LU-6 and Policy LU-6.1.*

*The Ordinance was amended a number of times through the 1990's and 2000's to modify the text and Generalized Land Use Map, and each amendment was found to be consistent with the General Plan Master Plan land use designation for the Airport Industrial Park. Since the adoption of the precise Planned Development Ordinance in 1992, the City has conducted a series of public hearings and open discussions about the planning, growth, development, and conservation of the Airport Industrial Park area.*



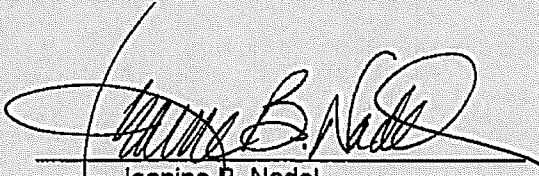
*These public hearings and community discussions have resulted in a number of modifications to the precise Planned Development Ordinance and the conditional approval of nearly 1 million square feet of development. It is questionable whether the 1981 specific plan was properly adopted, since it was not adopted by resolution or ordinance as required by Government Code Section 65451. In addition, virtually all of the information in the plan is outdated. In any event, the specific plan was superseded by the 1995 General Plan, designating the Airport Industrial Park as a Master Plan area and the ordinances adopted thereafter providing land use designations, allowed and permitted uses, and design standards within the Airport Industrial Park." (AR 2746)*

Government Code §65453 requires that a specific plan be adopted, amended or repealed in the same manner as a general plan, except that a specific plan may be adopted by a resolution or ordinance. According to the evidence in the record, in 1981 a Specific Plan for the Airport Industrial Park was adopted by a roll call vote which was inconsistent with the requirements set forth in §65453.

As stated above, the City adopted the General Plan in 1995 and designated the AIP as a master plan area with the knowledge that it had already adopted a precise Planned Development Ordinance which regulated growth and development within the AIP. The Development Ordinance was amended a number of times over the years and each amendment was consistent with the General Plan Master Plan land use designation for the AIP. Based on the evidence in the record, Petitioners have incorrectly assumed there is an AIP Specific Plan. The City is not required to conduct a consistency analysis with the AIP Specific Plan.

Based on the substantial evidence contained in the Administrative Record and applicable law, the City did not commit CEQA error in adopting the addendum or in excluding the 101/Talmage Improvements Project as part of the Costco Project. The City performed an adequate environmental review of the Project and certification of the EIR was appropriate. The Petition is hereby denied.

Dated: May 1, 2015



Jeanine B. Nadel  
Judge of the Superior Court

cc: all counsel



## PROOF OF SERVICE

Case: SC-UK-CV-PT-14-0063579-000 - UKIAH CITIZENS VS. CITY OF UKIAH

Document Served: **PROOF OF SERVICE FOR DECISION AFTER COURT TRIAL ON PETITION FOR WRIT OF MANDATE (CCP 1094.5)**

Service date: May 1, 2015

I, Frances Proteau, am a citizen of the United States of America and employed by the Superior Court in the County of Mendocino, State of California. I am over the age of 18 years and not a party to the within entitled action. My business address is 100 North State Street, Room 107, Ukiah, California, 95482. I am familiar with the County of Mendocino's practice whereby each document is placed in an envelope, the envelope is sealed and placed in the office mail receptacle. Each day's mail is collected and appropriate postage affixed thereto and deposited in a U.S. mailbox at or before the close of each day's business. On the date of this declaration, I served copies of the attached document on the below persons by placing a true copy thereof in the United States Mail, addressed as follows:

William D. Kopper  
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Sacramento, CA 95814

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was made on May 01, 2015 in the city of Ukiah, CA.

CHRISTOPHER D. RUHL, Clerk of the Court

By: \_\_\_\_\_

  
Frances Proteau, Deputy Clerk



## Attachment 9



November 21, 2013

Mr. Wayne Wiley  
Associate Planner  
City of Roseville  
311 Vernon St.  
Roseville, CA 95678

Re: Response to Philip King, Ph.D. Memo regarding Proposed Life Time Fitness Center in Roseville, CA

Dear Mr. Wiley:

ALH Urban & Regional Economics (ALH Economics) has reviewed the November 4, 2013 memo from Philip King, Ph.D. to Steve Herum, Attorney at Law, regarding Dr. King's comments on the EIR for the proposed Life Time Fitness facility proposed for Roseville, CA. Dr. King's opinion is that the EIR is inadequate and incomplete because it omitted any analysis of urban decay. Further, Dr. King believes that there is "a significant potential for urban decay stemming from" the proposed Life Time Fitness facility.<sup>1</sup> We have prepared the following response to address Dr. King's comments, paralleling the headings in Dr. King's memo where relevant. In addition, this response includes several data exhibits and source documentation.

The Principal of ALH Economics, Amy L. Herman, has extensive experience as an economic analyst conducting urban decay analyses for prospective development projects. These studies are typically conducted as part of the environmental review process, with the findings incorporated into EIRs for projects and the studies included as an Appendix to the EIR. In the context of CEQA, such analyses have historically been focused on large-scale retail development, mostly of a big box orientation. The professional resume for Amy L. Herman is presented in Appendix A, along with an introduction to ALH Economics. Ms. Herman's professional project experience includes a wide range of urban and regional economic analyses, as summarized in her resume. This includes real estate market research, fiscal and economic impact analysis, economic development and policy analysis, and other urban and regional economic specialties. In addition to the representative projects included in Ms. Herman's resume, her extensive experience preparing urban decay studies is also presented in Appendix A.

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<sup>1</sup> Memo to Steve Herum, Attorney at Law, from Philip King, Ph.D., regarding Proposed Lifetime Fitness Center in Roseville, November 4, 2013, page 1.



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## SUMMARY OF FINDINGS

The Life Time Fitness project EIR did not include analysis of urban decay. Such analysis is only necessary if there is the perceived potential for urban decay to result from project development. Upon initiating the EIR, the City of Roseville had no reason to anticipate that urban decay would result from development of the Life Time Fitness club. Therefore, the EIR was not deficient for failing to include such an analysis, despite claims to the contrary made by attorney Steven A. Herum in correspondence submitted to the City during the hearing on the merits of the project on November 6<sup>th</sup>, 2013.

In the context of CEQA, such analyses have historically been focused on large-scale retail development, mostly of a big box orientation. The City of Roseville has no reason to anticipate that urban decay would result from development of the proposed Life Time Fitness facility. There are limited fitness facilities in Roseville that are fully comparable to the proposed facility, such that the proposed facility will expand the offerings in the health and wellness market in Roseville. Moreover, retail vacancy in Roseville is very low and vacant retail spaces are moderately to well-maintained, including among some of the city's oldest retail centers. Even retail vacancies that are of relatively long duration for Roseville, such as one to two years, are typically well-maintained. Finally, no new retail development in Roseville has been tied to erosion of the physical condition of Roseville's retail base. Therefore, there is no reason to anticipate that urban decay would result in Roseville from development of the Life Time Fitness club.

After reviewing Dr. King's analysis, ALH Economics believes that his analysis is based upon faulty and undocumented assumptions. His work is sloppy and often unsubstantiated, resulting in the following flaws:

- Grossly underestimated existing fitness facility demand
- Incomplete inventory of supply of existing fitness facilities
- Unsupported estimate of existing club space use and membership
- Use of obsolete, misleading, and selective data
- Erroneous estimate of prospective Life Time Fitness membership
- Underestimate of VillaSport membership
- Overreliance on macro-level retail market data that obscure more favorable conditions in Roseville
- Misunderstanding and misrepresentation of retail market trends

There are yet other flaws in Dr. King's analysis, which together he uses to fabricate a story that development of Life Time Fitness, with or without the cumulative impacts of VillaSport, will lead to a significant increase in retail and office vacancy rates, resulting in urban decay. He therefore reaches the conclusion that the omission of an urban decay analysis renders the EIR for Life Time Fitness inadequate and incomplete.

In contrast to Dr. King's analysis, similar analysis conducted by ALH Economics with more reasoned and documented assumptions, indicates that urban decay is not an anticipated consequence of development of Life Time Fitness. This analysis is presented in the following section in which ALH Economics responds to Dr. King's memo. A final section to this letter reviews examples of similar memos or reports prepared by Dr. King in which he claimed that the environmental documentation for proposed development projects was inadequate and, similar to Roseville, in which he made his



own dire predictions about what would happen after the proposed facility was developed. A review of some of the memos and reports submitted by Dr. King shows that he is consistently wrong in his predictions, and that information he presents in support of his position that urban decay will occur often is incorrect or not supported by substantial evidence, and therefore is not credible.

#### RESPONSE TO DR. KING'S MEMO

Dr. King's memo included analysis on several topics germane to the proposed Life Time Fitness facility, including supply and demand characteristics, retail market conditions, and competitive impacts. These topics are reviewed below. Each topic starts with a synopsis of Dr. King's analysis, presented in lightly bolded italics, followed by an ALH Economics response. The topics are presented in the same order as in Dr. King's memo. Exhibits prepared and referenced by ALH Economics are presented in Appendix B. Select reference materials relied upon in preparing this response are included in Appendix C. Some reference materials are quite voluminous, such as court opinions, other memos prepared by Dr. King, and economic impact/urban decay studies prepared for other projects. These materials are referenced as appropriate, are maintained in the files of ALH Economics, and can be provided to the City of Roseville upon request.

#### The Market for Fitness Centers

*In this section of his memo, Dr. King provides an estimate of the potential membership for the Life Time Fitness Center based on a 20-minute drive time of the center. He cites a national membership participation rate of 16% of the population based upon information provided by the International Health, Racquet & Sportsclub Association (IHRSA) for 2012. Dr. King assumes a higher participation rate of 20% for Roseville given its younger more professional population base and applies this to a count of 210,665 households within a 20-minute drive time of the proposed center. From this, he derives an estimate of 42,133 potential fitness club members. Dr. King ascribes the household count to CBRE, but does not provide a source citation.*

Dr. King's approach to estimating membership grossly underestimates potential fitness club membership. In his memo he indicates the IHRSA participation rate pertains to population but then he applies his assumed participation rate to an estimated 2012 household count. Confusing households with population in this manner is a very substantial, and fundamental, error. The result is a demand analysis based upon a flawed premise.

ALH Economics conducted more in-depth research on prospective fitness club membership participation rates and information than did Dr. King. In 2012, IHRSA published a report on health club activity use and trends. This report is titled "The IHRSA Health Club Consumer Report: 2012 Health Club Activity, Usage, Trends & Analysis." Numerous trends are analyzed in the report based upon an online survey of 38,172 participants conducted through an industry leader in consumer survey administration. Many different types of information are included in the report, such as membership participation rates by state, participation rates by age, income, and region, and even the frequency of use of different health club features. The general findings as they pertain to the proposed Life Time Fitness Center include that California has the 6<sup>th</sup> highest overall participation rate in the country and that participation rates generally tend to be higher as income goes up. In addition, while the participation rates pertain to the entire population over the age of 6, the age bracket that tends to have the highest participation rate is the age 35-44 bracket.



Pursuant to the IHRSA study, the average California participation rate among the population over the age of 6 is 20.6%.<sup>2</sup> This is higher than the U.S. average of 17.9% also cited in this study.<sup>3</sup> In this manner, Dr. King was accurate in assuming a higher participation rate for Roseville than the national average he cited. ALH Economics obtained an estimate of the population and household count within the 20-minute drive time from the proposed Life Time Fitness center site referenced by Dr. King. The California fitness center participation rate was applied to the appropriate demographic base to estimate prospective fitness center participation. Notably, Dr. King does not provide any support for his selection of a 20-minute drive time area. All he states is that IHRSA indicates that "one of the most important factors in determining fitness membership is the drive time involved to get to the club" (quotes denote King memo, not IHRSA documentation).<sup>4</sup> Such a reference is not included in the above-cited IHRSA document; thus ALH Economics cannot determine Dr. King's source for this fundamental assumption. I suspect Dr. King selected the 20-minute area because he happened to find demographic data for this area in marketing materials for the site, as he sources CBRE and CBRE is the broker of record for the sale of the property. These data, however, comprise a secondary source, as CBRE is not a demographic data vendor and in turn obtains demographic data from third party resources. Dr. King does not identify, and probably does not know, the primary data source for these critical data points underlying his analysis.

As it happens, discussion with a representative of Life Time Fitness' Acquisitions team indicates that the company typically anticipates that a 20-minute drive time encompasses the primary and secondary trade area for a facility, comprising 85% – 90% of members. Thus, Dr. King's selection of a 20-minute drive time area was fortuitous.

ALH Economics obtained demographic estimates from The Nielsen Company, a national vendor of demographic and economic data. The Nielsen Company recently updated its demographic model, thus current estimates are provided for 2014. For data retrieval purposes, the project site pursuant to the application with the City of Roseville was identified as 1435 East Roseville Pkwy. Nielsen's database can be queried in many ways, including based on geography, site radius, and drive time. For drive time, data can be obtained based on driving only major roads or by driving all area roads. The major roads parameter is more restrictive, and results in a lower count. ALH Economics queried the Nielsen database for a 20-minute drive time from the referenced site based on both criteria, i.e., "major roads" and "all roads." The resulting demographic data are presented below in Table 1, including estimates for household counts, population, and population by select age groups. The data sheets provided by Nielsen with the relevant demographic data are presented in Appendix C.

In 2014, the 20-minute drive time area is estimated to have 235,837 to 313,345 households. While reflecting a different time period, this range is larger than the 210,665 household count estimate presented by Dr. King for 2012. Without access to Dr. King's source data, ALH Economics cannot determine why the household counts are not in synch. Nevertheless, ALH Economics obtained the data from a reliable data source, with the relevant data sheets included in Appendix C. Further, ALH

<sup>2</sup> "The IHRSA Health Club Consumer Report: 2012 Health Club Activity, Usage, Trends & Analysis," published by IHRSA, 2012, page 8. See excerpts in Appendix C.

<sup>3</sup> Ibid.

<sup>4</sup> King, page 2.



Economics believes the more accurate basis is the "all roads" figure, as people who drive to a fitness center will choose the most appropriate route at the time, which may or may not include major roads.

The population figures that correspond to the household counts are 629,757 for the "major roads" approach and 820,304 for the "all roads" approach. After backing out the population aged 0-4 and an estimate of the population aged 5, the resulting population estimates for age 6 and above are 580,269 for the "major roads" approach and 756,731 for the "all roads" approach. This is the population base to which the IHRSA participation rates apply. Therefore, application of the California 20.6% average fitness club membership participation rate results in estimated 20-minute drive time health club participation estimates of 119,535 to 155,887 in 2014. While not presented in Table 1, the population within the 20-minute drive time is forecast to increase by 4.2% between 2014 and 2019 (see source materials in Appendix C). Thus prospective fitness club membership is likely to increase over this future time period.

**Table 1. 20-Minute Radius Demographics and Fitness Club Participation, 2014**

Characteristic	Radius Using Major Roads	Radius Using All Roads
Households	235,837	313,345
Total Population	629,757	820,304
Population Aged 0-4	41,095	52,847
Population Aged 5-9	41,965	53,629
Population Aged 6+ (1)	580,269	756,731
Fitness Participation Rate (2)	20.6%	20.6%
Potential Fitness Club Members	119,535	155,887

Sources: Nielson Reports; "The IHRSA Health Club Consumer Report: 2012 Health Club Activity, Usage, Trends & Analysis," Published by The International Health, Racquet & Sportsclub Association, 2012, page 8;" and ALH Urban & Regional Economics.

(1) Assumes population age 6 is equal to 1/5 the population count aged 5-9.

(2) Applied to population aged 6+.

The ALH Economics population-based 2014 demand estimate of 119,535 to 155,887 is dramatically different from Dr. King's 2012 estimate of 42,133. Even at the conservative range predicated upon using only major roads to reach the site (or other sites within the area), the appropriate population-based estimate is more than twice the erroneous household-based estimate used by Dr. King.

As will be noted later, Dr. King predicates much of his opinion about the potential for urban decay to stem from the proposed Life Time Fitness club conclusion on the mismatch between supply and demand, saying the market is currently saturated. Given that potential membership is at minimum more than twice what Dr. King estimates, even without further analysis this suggests his finding regarding market saturation is incorrect and is based upon a simple math error.



In June 2005, Dr. King made a similar type of math error when he wrote a four-page memo claiming that there was a serious and significant possibility that a proposed Lowe's Home Improvement Warehouse in Sonora, CA would "create urban decay in the downtown as well as in other areas in the City of Sonora and lead to a less healthy business climate in the City."<sup>5</sup> Dr. King's memo regarding the proposed Lowe's store was submitted to the City of Sonora by attorney's opposing the proposed store's environmental review and documentation. When these attorneys, on behalf of a local citizen's organization, challenged the approval of the project and the adoption of a mitigated negative declaration, the issue went before the court system. In the process of reviewing Dr. King's memo for an appeal, the Fifth Appellate District Court of Appeal reviewed and analyzed King's analysis supporting his opinion that the "proposed store would displace approximately 176,000 square feet of existing retail space and that the displacement would have a devastating impact on a town as small as Sonora."<sup>6</sup> His estimate of 176,000 square feet of displaced space was based upon square footage sales impacts in three retail categories, including 140,000 square feet of impacts in the building materials category. King based this 140,000-square-foot estimate on an assumption of \$16 million in displaced sales and a sales performance estimate of \$216 per square foot. Noting that King's analysis did not make sense, the Court examined Dr. King's math and noted that the two figures leading to his conclusion of 140,000 square feet actually resulted in a different estimate of displaced sales, i.e., 74,074 square feet. The Court therefore determined that King's conclusion that 140,000 square feet of space devoted to building materials would be displaced by the proposed store "is an opinion that is not supported by the facts in the record or, apparently, the method he used to derive the figure. Instead, the information provided shows he made a math error."<sup>7</sup> The Court therefore further stated in its Opinion, that:

"The ultimate opinion provided by Professor King about urban decay cannot be regarded as substantial evidence because it was based on an erroneous calculation of displaced retail space. In short, the error means that the opinion regarding urban decay was 'unsubstantiated' rather than 'supported by facts' for purposes of Public Resources Code section 21082.2, subdivision (c)."<sup>8</sup>

After revealing Dr. King's math error in the case of the Sonora Lowe's Home Improvement store, the Court determined there was no further need to address other issues raised by Dr. King in his June 2005 four-page memo claiming urban decay would result from the Lowe's store development. A similar argument could be made here as well, regarding Dr. King's claims that there is "a significant potential for urban decay stemming from" the Life Time Fitness project, since much of Dr. King's analysis is predicated upon the assumption that existing fitness facilities will close because his estimate of demand (which has been shown to be erroneous and a gross underestimate) essentially matches

<sup>5</sup> Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora et al., Court of Appeal, Fifth Appellate District, State of California, Certified for Partial Publication, filed 10/2/07. This Opinion can be found at: [http://ceres.ca.gov/ceqa/cases/2007/Tuolumne\\_County\\_Citizens\\_v.\\_City\\_of\\_Sonora.pdf](http://ceres.ca.gov/ceqa/cases/2007/Tuolumne_County_Citizens_v._City_of_Sonora.pdf). Although this court decision is only a partial "published" precedent citable by attorneys in court, the decision nevertheless reflects the court's awareness of errors in Dr. King's analysis and lack of facts in support of his opinion. See Appendix C.

<sup>6</sup> Ibid, page 27.

<sup>7</sup> Ibid, page 28.

<sup>8</sup> Ibid.



his estimate of the supply.<sup>9</sup> Nevertheless, this letter continues to provide review and response to Dr. King's additional areas of analysis in an effort to give his opinion consideration.

### Competitors

*Dr. King provides a list of 32 fitness facilities in Roseville, Rocklin, Granite Bay, and Citrus Heights that he identifies as potential competitors for the proposed Life Time Fitness Center (see King, Table 2). He provides an estimate of membership, citing that the estimated membership is consistent with accepted industry standards. This purported standard, as evidenced by Dr. King's estimates of membership for the facilities with cited square footage, appears to be 10 square feet of space per member. Dr. King provides no citation for this standard. He applies this metric to square feet per fitness facility, assigns 500 members to all facilities for which he does not provide estimated size, and derives an estimate of total membership of 43,000 among the 32 facilities. Dr. King then compares this figure to his earlier estimate of 42,133 potential member households (see King Table 1) and indicates this means the current market for fitness centers is already saturated and that any members attracted by Life Time Fitness will be attracted away from existing area health clubs.*

Dr. King's competitive analysis appears very rudimentary and incomplete. For example, among the 32 facilities cited by Dr. King, follow-up research conducted by ALH Economics indicated that several of these facilities are not in operation or are consolidated with other facilities. For example, Dr. King cites five locations for Curves, three in Roseville and two in Rocklin. Research conducted by ALH Economics in the week following the date of Dr. King's memo indicates that only three of these facilities are in operation, with one facility closed in Roseville (e.g., 699 Washington Boulevard) and one relocated in Rocklin (the Stanford Ranch location moved to Sunset Boulevard). Yet other facilities are listed at the wrong address, such as Fitness MD in Roseville and MAS Movement Strength, the latter of which is a personal trainer who works with private clients and thus is quite unlikely to have the level of membership ascribed by Dr. King, e.g., 500 members. Thus, Dr. King's fact-checking regarding prospective competitive facilities is clearly lacking in accuracy.

This sloppiness is coupled with Dr. King's implied statement that a 10 square feet per member metric is industry standard. No citation for this metric is provided by Dr. King; thus there is no evidence to support his assumption. ALH Economics pursued several approaches to confirm the reasonableness of this assumption or develop an alternate assumption. On one hand, Dr. King's figure seems low when you consider that even one piece of sports equipment could require more than 10 square feet of space as a footprint for the equipment, plus additional space to accommodate circulation and locker room space. For example, internet-based research on a basic treadmill, such as the NordicTrack T5.5 Treadmill sold by Sears, indicates dimensions of 73 1/4" W, 35 3/4" H, and 68 1/8" L, which corresponds to a footprint of 34.65 square feet.<sup>10</sup> Further, the American College of Sports Medicine (ACSM) indicates that industry practice for group fitness studios/exercise classrooms is to allocate 40

<sup>9</sup> Philip King, Ph.D. memo, November 4, 2013, page 1.

<sup>10</sup> See: [http://www.sears.com/nordictrack-t5.5-treadmill/p-00624975000P?prdNo=2&blockNo=2&blockType=G2&sid=ISx20070515x00001a&psid=37x1073046&knshCrid=3192714&k\\_clickID=267d76f7-93b3-0d09-32c9-000030164916](http://www.sears.com/nordictrack-t5.5-treadmill/p-00624975000P?prdNo=2&blockNo=2&blockType=G2&sid=ISx20070515x00001a&psid=37x1073046&knshCrid=3192714&k_clickID=267d76f7-93b3-0d09-32c9-000030164916) (Copy of printout included in Appendix C).



to 60 square feet of space per piece of equipment or per user.<sup>11</sup> The metrics vary, but the ACSM reports that in 2010, per a publication prepared by IHRSA, industry member occupancy levels ranged from 10 to 14 square feet per member.<sup>12</sup> Further, empirical data from health/fitness operators worldwide show a general range of 3 to 27 square feet per member.<sup>13</sup> Ultimately, ACSM says the allocation of space per member depends on the business model chosen by each facility operator. All of these figures suggest an overall average higher than the 10 square feet of space cited by Dr. King.

In addition to the above, ALH Economics turned to the Life Time Fitness, Inc. 2012 Annual Report to determine if space metrics are provided in this report or can be deduced from other report information. There is useful and relevant information included in this report (see Appendix C for relevant pages excerpted from the 2012 Annual Report). However, the nature of Life Time Fitness' facilities is not conducive to deducing a space metric per member. For example, the proposed Roseville Life Time Fitness center includes 120,000 square feet of building space plus additional outdoor area for pool and 14 tennis courts.<sup>14</sup> This facility is generally comparable to the current larger format center being developed by Life Time Fitness, Inc., which average 114,000 square feet.<sup>15</sup> According to the Annual Report, the current model generally targets 7,500 to 11,000 memberships.<sup>16</sup> The Annual Report also indicates that as of December 31, 2012, there was an average of 1.9 members per membership.<sup>17</sup> Using these figures, it appears that the current model Life Time Fitness facility averages 14,250 to 20,900 individual members. Applying these figures to the average current model facility size of 114,000 results in a space metric of 5.45 to 8.0 square feet per member, or a general average of 6.5. However, as noted above, this figure does not take into account the outdoor space typically devoted to pool and tennis courts, and thus is not a reliable estimate of fitness facility space allotted per member. Clearly, Life Time Fitness, Inc. has a space metric well in excess of this calculated figure.

Without more in-depth analysis it is difficult to assess the appropriate metric for fitness facility space per member. The time allotted ALH Economics for preparation of this letter is not conducive to conducting this more in-depth analysis. Moreover, as suggested by the ACSM data, the metric likely varies by type of fitness facility, such that one metric is not appropriate across all facilities. Therefore, ALH Economics approached the issue of average fitness facility membership from a different direction. IHRSA tracks U.S. consumer participation at health clubs and the number of health club facilities. Trend data regarding health club membership and health club counts by year is available on the IHRSA web site. This information indicates that in 2012, there were an estimated 50.2 million people who belonged to a health facility. At the time there were 30,500 health facilities. This averages to 1,657 members per facility.<sup>18</sup> This figure has moved around a bit in recent years, but has averaged

<sup>11</sup> "ACSM's Health/Fitness Facility Standards and Guidelines," Fourth Edition, 2012, American College of Sports Medicine, page 53. See Appendix C.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> [http://www.roseville.ca.us/planning/lifetime\\_fitness.asp](http://www.roseville.ca.us/planning/lifetime_fitness.asp)

<sup>15</sup> "Life Time Fitness, Inc. 2012 Annual Report," page 5. Printout of this and other select pages included in Appendix C.

<sup>16</sup> Ibid.

<sup>17</sup> Ibid, page 8.

<sup>18</sup> <http://www.ihrsa.org/about-the-industry>, accessed November 16, 2013. Copy of webpage included in Appendix C.



between 1,600 and 1,700 since 2010. Therefore, for working purposes, ALH Economics assumes average fitness facility membership of 1,657 for the fitness facilities identified by Dr. King as potentially competitive with the proposed Life Time Fitness Center. Using this metric, applied to 29 of the 32 facilities cited by Dr. King,<sup>19</sup> results in estimated existing fitness facility membership of 48,053. Notably, this figure is actually higher than Dr. King's estimated 43,000 figure.

The estimated existing fitness facility membership of 48,053 compares to the more accurate year 2014 estimate of 119,535 to 155,887 potential fitness club members presented in the earlier section. Thus, for the same facilities analyzed by Dr. King, this revised analysis using a more supportable membership metric demonstrates that, rather than the current market for fitness centers being already saturated as claimed by Dr. King, the market is characterized by a strong deficit of facilities, indicating room for yet additional facilities to enter the marketplace.

Although not disclosed by Dr. King, ALH Economics recognizes that Dr. King's list of competitive facilities is likely not comprehensive. Dr. King himself is internally inconsistent by citing a Roseville facility later in his report that is not included in his list of potential competitors. This facility is Strong Fitness, referenced in Figure 1 on page 6 of his memo pursuant to his discussion regarding existing vacancies. Using Google maps, ALH Economics calculates that this facility is located approximately 1.1 miles from the proposed Life Time Fitness site. Thus it seems this facility should just as likely be considered a competitive facility by Dr. King as any other facility he cited, again suggesting sloppy research by Dr. King. This suggests there are yet other fitness facilities within the 20-minute drive time of the proposed Life Time Fitness center overlooked by Dr. King. However, also of note is that just because the 20-minute drive time is a reasonable trade area to assume for analysis of Life Time Fitness, that does not mean this is the same trade area for all the cited fitness facilities. This is especially the case for the facilities located somewhat distant from the Life Time Fitness site, such as all of the California Family Fitness facilities, which are located approximately 4.3 to 5.0 miles from the Life Time Fitness site (pursuant to Google maps queries). The trade areas for these facilities likely extend beyond the 20-minute trade area for Life Time Fitness, meaning some portion of their trade area is likely unique from the Life Time Fitness trade area, and in like manner, some portion of the Life Time Fitness trade area is beyond the boundaries of the California Family Fitness facility trade areas. In other words, their trade areas intersect but are not coterminous.

### **Vacancies in Roseville Area**

*Dr. King presents data regarding retail vacancy for the combined Roseville and Rocklin area for retail space by type of center, including community and neighborhood centers, power regional centers, and strip centers (see King Table 3). He indicates that while power and regional shopping centers are doing well, strip centers have an almost 25% vacancy rate. He indicates that by his estimation it would take 60 years to absorb the existing strip center vacancy, and that approximately half the competing fitness facilities he identified are located in strip centers. He states that market conditions are better for community centers but that current negative absorption indicates that vacancy is rising for these centers, despite being several years into the recovery from the Great Recession. Dr. King further indicates the amount of community center vacancy is high, and that a center could be troubled if an anchor store closes. Dr. King also cites office space*

<sup>19</sup> This count deducts the two closed Curve facilities and the MAS Movement Strength studio, which likely does not have the 500 members ascribed by Dr. King since it is primarily a personal training facility.



*vacancy rates, indicating that these are among the highest in the Sacramento region, that four of the competitive fitness facilities he identified are located in office/flex complexes, and that at the current absorption rate it would take 25 years to fill these vacancies.*

ALH Economics examined the vacancy data presented by Dr. King in Table 3 of his memo. He presents the data as year-to-date, but does not specify the time frame. Examination of the source data reveals that Dr. King presented data only for first quarter 2013, despite his memo date of November 4, 2013. It is misleading of Dr. King to present data labeled as year-to-date without identifying the timeframe of the data. Moreover, it is specious of Dr. King to use data from one three-month period to present a characterization of market trends. Further, as noted by Dr. King, the data are combined for the Roseville and Rocklin area. This serves to commingle the characteristics of the retail bases for the two cities, when in fact the retail bases are characterized by very different levels of performance.

ALH Economics went to the source of Dr. King's market data and prepared a more appropriate time series of data. This source is the commercial brokerage firm Colliers International, which prepares quarterly reports on the Sacramento retail market, with the Roseville and Rocklin markets combined for data presentation purposes. These data are presented in Exhibit 1 in Appendix B (source documents are included in Appendix C). The data are presented for year-end 2011 (identified as fourth quarter 2011), year-end 2012 (identified as fourth quarter 2012), and the first and third quarters of 2013. The time series is limited to 2011 onward because ALH Economics could not locate a similar report for year-end 2010 and the year-end 2009 data were not comparable due to changes in the manner in which Colliers International tracks retail centers (i.e., specialty/lifestyle/outlet retail centers were identified as a separate category of retail in 2009, but this distinction is no longer present in the data from 2011 onward).

As noted in Exhibit 1, with almost no exception, retail vacancy rates have consistently dropped or remained stable for all types of retail centers in the combined Roseville/Rocklin area since year-end 2011. This is in direct opposition to the retail market characterization painted by Dr. King. At year-end 2011, community and neighborhood centers were characterized by 15.5% vacancy. By the end of first quarter 2013, this had dropped to 14.0%, which then remained stable through third quarter 2013. During 2011, almost 62,000 net square feet of community and neighborhood space were absorbed, increasing to more than 150,000 net square feet in 2012. The negative net absorption of (15,028) square feet cited by Dr. King in first quarter 2013, which he described as "not a good sign,"<sup>20</sup> had reversed after this time period, with 36,144 net square feet absorbed during third quarter and ending the quarter with year-to-date net absorption of 15,919 square feet. It is unclear by what metric Dr. King believes the market for community and neighborhood shopping centers is worsening, since according to his source, Colliers International, vacant space dropped by almost 100,000 square feet since year-end 2011, i.e., from 818,491 square feet of vacant space at year-end 2011 to 719,247 square feet of vacancy space at the end of September 2013. Even based on the data reported by Dr. King himself for first quarter 2013, the vacant space dropped by approximately 90,000 square feet since year-end 2011.

Power regional centers are the exception to consistently dropping vacancy rates, with the first quarter 2013 vacancy rate of 8.2% increasing nominally to 8.5% by the end of third quarter 2013. This appears to be a minor shift, which reflects the dynamic nature of the retail sector, especially since net

<sup>20</sup> King, page 4.



absorption for the year remains positive at 36,648 square feet through third quarter 2013. Moreover, retail vacancy in the sector as a whole is down substantially since year-end 2011, when it was reported at 11.6%. Thus, as cited by Dr. King, this sector of the retail base is performing well.

The strip center retail sector is the sector of greatest concern to Dr. King, wherein he cites an expectation that the existing less than 300,000 square feet of vacant strip center space will require over 60 years to absorb existing capacity. Dr. King does not explain how he derives this 60-year figure. Dr. King apparently presents this kind of analysis for its shock value, and it does not reflect a number of market factors. First, strip center space in 2012 experienced almost 15,000 square feet of net absorption (see Exhibit 1). In general, retail markets are deemed most healthy when there is some increment of vacancy, at least 5.0%, which allows for market fluidity and growth of existing retailers. Even retail vacancy rates at the 10% level are generally considered a reasonably healthy retail market.

Therefore, assuming no less than a sustained 10% strip retail vacancy rate, the current vacancy in excess of this level totals approximately 154,000 square feet.<sup>21</sup> This is not a very high increment of space relative to the entire retail base of 9.6 million square feet. Moreover, even if one accepts Dr. King's approach to estimating long-term absorption, then this increment of space would be absorbed over 10 years at the 2012 net absorption rate of 15,000 square feet. This 10-year estimate is dramatically different than Dr. King's 60-year estimate. However, despite calculating this estimate, ALH Economics believes this type of analysis is specious because it assumes, as an artificial parameter, the long-term use of the existing retail inventory *as retail space*.

Commercial markets are fluid and dynamic, and depending upon regulatory constraints, properties can readily change use or get redeveloped. Properties are often repositioned, as property owners readjust their expectations. As retail properties age and become increasingly obsolete as part of the real estate cycle, lease rates drop. While these declining lease rates can lower barriers to entry for some retailers, they can also reach a point where it becomes uneconomical for a property owner to continue to maintain the property in its current use, providing opportunities for rehabilitation or reuse. An example of retail property moving out of the retail inventory for use by non-retail businesses or institutions in Roseville includes 1529 Eureka, which was occupied by the retail use Design by Valentine and changed to a church, i.e., Family Church. This example demonstrates that real estate markets are fluid, and that the size of a market's retail inventory is not a fixed, static entity. Moreover, retail buildings have finite lifespans. Hence there is no knowing today what size the combined Roseville/Rocklin strip center retail base will be in 2073, as speculated by Dr. King given his 60-year absorption estimate. Thus, there is no merit to basing an analysis on a forecast of this length.

Rather than overly dwell on Dr. King's specious analysis about the length of time required for the strip retail center to reach a more healthy vacancy rate, ALH Economics believes two other factors are much more relevant to review. First, when one merges all the retail sector data in Exhibit 1 together, the combined retail inventory totals 9.6 million square feet. The overall vacancy rate for this space has declined over time, from 15.3% at the end of 2011 to 13.2% at the end of third quarter 2013. Overall, this indicates the combined retail market in Roseville and Rocklin is exhibiting improvement, with positive net absorption over each time period measured. More important, however, is the very fact that the retail data provided by Colliers International and relied upon by Dr. King are merged for

<sup>21</sup> Calculated as the existing vacancy of 262,940 square feet – 10% of the existing retail base of 1,089,941 square feet, or 108,994 square feet.



the two cities of Roseville and Rocklin. Examination of separate retail market data for each city presents a very different picture of the current retail market dynamics. ALH Economics obtained such separate data from Costar, a commercial real estate information company. These data are presented in Exhibit 2 for Roseville and Exhibit 3 for Rocklin (see Appendix B). The data are combined in Exhibit 4. The data provide a quarterly time series back to first quarter 2006.

Every commercial real estate brokerage or information company tracks a different complement of properties when measuring inventory, vacancy, and absorption. Thus, the combined Costar data for Roseville and Rocklin in Exhibit 4 differ from the combined data reported by Colliers International in Exhibit 1. Notably, as of third quarter 2013, Colliers International reports a combined retail base of 9.6 million square feet, while Costar reports a larger base of 13.6 million square feet (see Exhibit 4). The overall third quarter 2013 retail vacancy rate reported by Colliers International was 13.2%, while the corresponding figure reported by Costar was 9.7%. Interestingly, the amount of third quarter 2013 vacant space is relatively comparable between the two sources, reported as 1.3 million square feet by both sources.

Reconciling the data discrepancies between Colliers International and Costar is an impossible task unless one can identify the individual properties tracked by each industry leader and perform a property by property comparison. Such a task is certainly beyond the scope of what can be accomplished in this review of Dr. King's analysis, and would only be achievable by an industry insider with access to each company's database. However, the Costar data clearly indicate that by separating Roseville from Rocklin strong distinctions between the two retail markets emerge. First, the majority of retail space is located in Roseville versus Rocklin, with 10.4 million and 3.2 million square feet, respectively (see Exhibits 2 and 3). Yet, the amount of vacant retail space is approximately the same in each city, averaging about 660,000 square feet. As a result, the overall retail vacancy rate in Roseville is a modest 6.4%, compared to a much higher 20.2% vacancy rate in Rocklin. Further, the vacancy rates in Roseville since first quarter 2006 have remained generally within healthy parameters throughout the time period, even during the peak of the Great Recession, with vacancy highest in mid-2010 at 10.8%. For most of the noted time period, Roseville's retail vacancy rate was well below the 10.0% level. In contrast, Rocklin's vacancy rate peaked at a similar timeframe at 23.9%, and has generally not been below the 20% level since late 2008.

The retail market performance distinctions are important because Dr. King, in the following section of his memo addressing **Potential Closings**, indicates a belief that fitness centers closest to the proposed Life Time Fitness center site will be most at risk of closure. He then proceeds to identify six specific facilities he anticipates will face the most significant pressure. All six of these facilities are located in Roseville. Therefore, the retail market characteristics in Roseville are far more germane to Dr. King's analysis than the characteristics in Rocklin, and as noted, the retail market in Roseville appears to be very strong and healthy. For example, according to Costar, net retail absorption in Roseville over the past four quarters totaled 166,047 square feet. This is in strong contrast to the 13,200 net square feet in Rocklin over the same time period. Hence, contrary to Dr. King's claims and assumptions, the retail market in Roseville is very healthy, characterized by declining vacancy and strong absorption.



## Potential Closings

*Dr. King estimates membership for the proposed Life Time Fitness Center as well as for VillaSport, another proposed large-scale health club in Roseville, and concludes that for these two centers to be viable up to 38% of the current market, or 16,500 members, could be displaced. He identifies up to six existing facilities in Roseville that he therefore believes are most at risk of closure due to this displacement. Yet Dr. King further suggests that all of the clubs he identified as competitive facilities could be at risk, and that multiple fitness centers would close over the next 2-5 years to bring the market back to equilibrium. He prepares an estimate of future demand based on household growth from 2012 to 2017 and, after netting out projected membership associated with this growth, concludes that over the next five years up to 13,500 memberships will be displaced, representing between a quarter and a third of the current market pursuant to his estimate. He concludes that the "cumulative impacts of such closings will significantly add to the potential for urban decay given the already high vacancy rates in the area."<sup>22</sup>*

ALH Economics believes Dr. King's analysis in this section of his memo is completely predicated on faulty analysis and assumptions. First, Dr. King uses data he cites from Life Time Fitness Annual reports, most specifically relying on an older report from 2007 to estimate membership of 8,300 to 11,500, when much more current information is presented in newer reports, including the 2012 Annual Report that Dr. King also references. He used the 2007 Annual Report to cite a target membership level for Life Time Fitness' larger centers, at 8,500 to 11,500. These figures are higher than membership figures from the 2012 Annual Report of 7,500 to 11,000 memberships for the current model of facility being built, or 5,500 to 11,000 for other large format centers.<sup>23</sup> It almost appears that Dr. King was fishing for the highest prospective membership number possible by relying on a report that is six years old, and essentially obsolete from an operational perspective. The irony here is that Dr. King ultimately underestimated prospective Life Time Fitness membership because he did not review the Annual Report in enough depth to realize that each membership averages 1.9 members. As estimated above in the **Competitors** section, ALH Economics estimates that based on membership data cited in the 2012 Annual Report, the current model Life Time Fitness facility averages 14,250 to 20,900 individual members. This figure is greatly in excess of Dr. King's estimate of 8,300 to 11,500, which was based on obsolete and incomplete data.

Dr. King then supplements his estimate of new club memberships in the area by referencing another planned large-scale health club proposed for Roseville. This is VillaSport Athletic Club and Spa (VillaSport), planned for development next to the Westfield Galleria in Roseville. While not as far along in the development and approvals process as Life Time Fitness, Dr. King assumes this project will also be added to the health and wellness sector in Roseville, and thus qualifies as a reasonably foreseeable project for purposes of cumulative analysis. Dr. King estimates this project, planned by Syufy Enterprises, would need to enroll at least 5,000 members to be viable. As is characteristic of Dr. King, he does not provide a citation for this 5,000 member figure. In contrast, ALH Economics found a January 2013 Sacramento Business Journal article in which a Syufy representative says he expects

<sup>22</sup> King, page 5.

<sup>23</sup> "Life Time Fitness, Inc. 2012 Annual Report," page 5.



4,500 memberships, with an individual membership typically comprising three people.<sup>24</sup> Thus, based on this information, the anticipated membership at VillaSport is more like 13,500, not the 5,000 figure estimated by Dr. King. Together, based on the membership estimates prepared by ALH Economics, the two new planned large-scale fitness facilities could have cumulative membership of 27,750 to 34,400. This figure is greatly in excess of Dr. King's maximum estimate of 16,500.

Of note, the Life Time Fitness membership estimate includes members of all ages, including members under age 6. The IHRSA metric on which fitness club demand is based excludes persons under the age of 6. Accordingly, there is a slight discrepancy in comparing the estimated Life Time Fitness membership to the estimated IHRSA-based demand. However, this mismatch results in a conservative analysis, as it slightly inflates Life Time Fitness membership compared to demand. Based upon information provided by a representative of Life Time Fitness during a telephone interview, as of October 2013, approximately 5% of all individual Life Time Fitness members were under the age of 6.<sup>25</sup> To keep the analysis conservative, the Life Time Fitness membership estimate is not adjusted to account for this age factor. A similar adjustment is not made for VillaSport, which also will likely have a percentage of members under the age of 6.

Dr. King compared his estimate of 16,500 new members to his existing membership figure of 43,000, which also happened to match his demand estimate (hence concluding there is no unmet demand), and thus calculated that up to 38% of the existing membership could be displaced. Using more substantiated assumptions and analysis, ALH Economics estimates that demand in the 20-minute drive time surrounding the Life Time Fitness site in 2014 will total 119,535 to 155,887. In contrast, existing membership among the facilities identified by Dr. King is estimated to total 48,053. The comparative results of these two different supply and demand analyses are presented below in Table 2.

**Table 2. Comparative Fitness Club Membership Supply and Demand Analysis**

Characteristic	King Analysis		ALH Economics Analysis	
	Low	High	Low	High
20-minute drive time demand (1)	42,133	42,133	119,535	155,887
Existing Club Memberships	(43,000)	(43,000)	(48,053)	(48,053)
Life Time Fitness Membership	(8,300)	(11,000)	(14,250)	(20,900)
VillaSport Membership	(5,000)	(5,000)	(13,500)	(13,500)
Remaining Demand	(14,167)	(16,867)	43,732	73,434

Sources: Philip King, Ph.D., November 4, 2013 Memo; and ALH Urban & Regional Economics.

(1) Figures for King Analysis reflect 2012 estimate while Figures for ALH Economics reflect 2014 estimates.

<sup>24</sup>Sacramento Business Journal, "Syfy proposes upscale fitness center for Roseville," January 4, 2013 (<http://www.bizjournals.com/sacramento/print-edition/2013/01/04/syfy-upscale-fitness-center-roseville.html?page=all>). See copy of article in Appendix C.

<sup>25</sup>Telephone interview with Abdi Javidan, Sr. Director Acquisitions, Life Time Fitness, Inc.



As the figures in Table 2 indicate, Dr. King's approach to supply and demand results in negative remaining demand upon full operation of the Life Time Fitness and VillaSport facilities. This alleged negative demand is the basis for his conclusion that existing club membership will be displaced by the new large scale facilities. In contrast, the ALH Economics analysis of supply and demand indicates that substantial additional demand will remain even after these two facilities are developed. Dr. King's analysis further considers future growth in demand, estimated at less than 300 memberships between 2012 and 2017. He determined this is not sufficient to offset the displacement impacts of the new facilities. In contrast, the demographic projections for the 20-minute drive time indicate that the area population is projected to grow by 4.2% between 2014 and 2019. Thus, by 2019, ALH Economics estimates that demand for fitness club memberships will grow by approximately 5,000 to 6,600.<sup>26</sup>

As perhaps a telling commentary on Dr. King's analysis, the aforementioned January 2013 Sacramento Business Journal article included two quotes from existing and prospective fitness club operators in the 20-minute trade area defined for Life Time Fitness. One of these quotes is from a representative of Syufy, the operator of the planned VillaSport facility. In this article, the Syufy spokesman indicates, in reference to the existing and prospective competition, including Life Time Fitness, "I think we can all sort of exist side-by-side."<sup>27</sup> In like manner, Spare Time, the owner/operator of Johnson Ranch Racquet Club, the existing facility within the 20-minute drive time area with the most comparable amenities and services to Life Time Fitness and Villa Sport, was cited in the Sacramento Business Journal article as recognizing that fitness club operators have slightly different models, and that Spare Time will be able to compete.<sup>28</sup> The statements of these individuals suggest they are not, at least publicly, concerned about prospective displacement of their facilities resulting from the market introduction of Life Time Fitness.

Convinced that his analysis is correct, Dr. King proceeds in his memo to identify six specific fitness facilities he believes will be most at risk of closure due to member displacement. These facilities, all in Roseville, include the following:

- 24 Hour Fitness on North Sunrise Avenue, Anytime Fitness on Douglas Boulevard, and Golds Gym on Foothills Blvd., all located in community or neighborhood shopping centers;
- Curves on Cirby Way, located in the Oak Ridge Plaza strip center;
- Johnson Ranch Racquet Club, located in a stand-alone facility on Eureka Road;
- Roseville Health & Wellness on Lead Hill Boulevard, located in office/flex space.<sup>29</sup>

In contrast to Dr. King's conclusions, the ALH Economics analysis indicates sufficient membership demand will exist for the preceding facilities and Life Time Fitness. Moreover, each of these facilities provides different services and serves different niches. For example, some facilities focus on the use of fitness equipment, others are oriented around a medical model of service, while yet others are family-oriented and include outdoor swimming and tennis.

It is likely that Life Time Fitness and VillaSport will be most competitive with facilities that provide the greatest level of services, and hence require the greatest cost, and less competitive with facilities that

<sup>26</sup> The 4.2% growth factor is applied to the 119,535 and 155,887 estimated demand figures.

<sup>27</sup> Sacramento Business Journal, Ibid.

<sup>28</sup> Sacramento Business Journal, Ibid.

<sup>29</sup> King, page 5.



provide relatively fewer services. For example, representative facilities in Roseville that lack outdoor swimming, tennis, youth-oriented activities (among other features) cost about \$10 to \$40 per month per member.<sup>30</sup> In contrast, as of year-end 2012, Life Time Fitness membership costs started at \$40 to \$55 per month per individual member and \$100 to \$135 per month per family.<sup>31</sup> At the highest level, reflecting the greatest level of benefits, value, and privileges, individual membership costs are \$120 to \$140 per month and family membership costs are \$250 - \$270 per month.<sup>32</sup> Thus, Life Time Fitness membership costs are relatively high and most assuredly attract a different demographic and type of user than the lower cost \$20 to \$40 per month facilities. The costs are higher at Life Time Fitness because of the range of amenities, services, activities, and events available, which will not appeal to users of other fitness facilities, or will be too expensive for them. While features vary among Life Time Fitness facilities, a select listing available at the typical current model includes zero-depth entry swimming pools, basketball/volleyball courts, racquetball/squash courts, waterslides, rock climbing cavern, child center, massage therapy, metabolic testing, nutrition coaching, aquatics, athletic leagues, sports training camps, summer and vacation camps, social events, and interest-driven clubs.<sup>33</sup>

ALH Economics prepared the preceding approach to a supply and demand analysis because it parallels Dr. King's analysis. This was prepared to show how the results estimated by Dr. King would be different if he used more appropriate assumptions. If conducting an independent analysis, ALH Economics would approach the analysis differently, recognizing more nuances in the analysis. These nuances would most importantly take into consideration that trade areas vary by facility, with smaller facilities likely having a small trade area and larger facilities with a broader array of member features and amenities having a larger trade area. An ALH Economics analysis would also take into consideration the different market niches served by the various fitness facilities as well as sensitivity to household income as an indicator of demand for facilities by price structure. Further, larger facilities such as California Family Fitness and Johnson Ranch Racquet Club are more family-oriented, provide a much broader array of services than the smaller strip or community shopping center clubs such as Curves and Anytime Fitness, and thus attract a different demographic from a wider geographic area. The trade areas for these larger facilities will overlap only in part with the trade area for Life Time Fitness and Villa Sport. A more sensitive analysis would therefore take this partial overlap into consideration, and more carefully shape competitive supply and demand estimates.

### **Potential for Urban Decay**

*Dr. King indicates that given the very high vacancy rates in Roseville's strip malls, community centers, and office space, there is a significant threat of urban decay resulting from eliminating a quarter of current health clubs in the market and that this threat should have been addressed, and mitigated if possible, in the EIR. He then proceeds to present photos of five existing retail vacancies, citing Sunrise Boulevard as having a large number of strip malls with high vacancy rates and newer commercial buildings near Stanford Ranch Road in Roseville/Rocklin also having high vacancy rates.*

<sup>30</sup> Monthly fees for facilities in Roseville including 24 Hour Fitness, Anytime Fitness, Crunch Gym, and Gold's Gym pursuant to website and telephone research.

<sup>31</sup> "Life Time Fitness, Inc. 2012 Annual Report," page 9.

<sup>32</sup> Ibid.

<sup>33</sup> Ibid, page 6.



Before responding to this comment, it warrants repeating that Dr. King's analysis is premised upon erroneous analysis and false assumptions – that in his opinion existing area demand is not sufficient to absorb the Life Time Fitness center and that existing fitness centers will be displaced when demand is redirected away from them to Life Time Fitness and VillaSport. It is on the basis of these conclusions that Dr. King believes vacancy will increase and hence the potential for urban decay to result. The preceding ALH Economics analysis demonstrated the flaws in Dr. King's calculation of demand, and therefore demonstrated that sufficient demand exists for the existing fitness centers as well as the two major potential market additions – Life Time Fitness and VillaSport. Nevertheless, the following addresses Dr. King's concern about the condition of vacancies in Roseville.

It is also important at this juncture to focus on what constitutes the *environmental* impact known as urban decay. The leading court case on the subject, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1204, described the phenomenon as "a chain reaction of store closures and long-term vacancies, ultimately destroying existing neighborhoods and leaving decaying shells in their wake." The court also discussed prior case law that addressed the potential for large retail projects to cause "physical deterioration of [a] downtown area" or "a general deterioration of [a] downtown area." (Id. at pp. 1206, 1207). When looking at the phenomenon of urban decay, it is also helpful to note economic impacts that do not constitute urban decay. For example, a vacant building is not urban decay, even if the building were to be vacant over a relatively long time. Similarly, even a number of empty storefronts would not constitute urban decay.

In citing the "very high vacancy rates in Roseville's strip malls"<sup>34</sup> Dr. King appears to be confusing the combined Roseville/Rocklin market statistics with Roseville alone. As demonstrated by the Costar data in Exhibits 2 - 4, the bulk of the combined area vacancy is in Rocklin. Therefore, it is not clear that one could characterize Roseville's strip malls as having "very high vacancy" from this information alone. Moreover, among the five vacancies photographed and referenced by Dr. King, only one is an example of a strip center vacancy, i.e., Figure 3 at 9050 Fairway Drive. Hence, Dr. King's own analysis does not support his contention that Roseville has high strip center vacancy.

This section of Dr. King's Memo is about providing evidence of existing retail vacancies. It is difficult to see how he makes the leap from identifying vacancies to saying the threat of urban decay is significant. Moreover, there appears to be minimal logic to the vacancy examples cited, with the exception of two vacancies in centers that include a fitness center as a tenant (i.e., Figures 1 and 3). Here Dr. King is presumably implying that the prospective vacancy of a displaced fitness center (in his perception) will compound existing vacancy. ALH Economics viewed the vacancies highlighted by Dr. King, including the vacancies presented as Figure 1 (354 North Sunrise Avenue) and Figure 3 (9050 Fairway Drive). These vacancies are both well-maintained and located in existing retail nodes. Of particular note, the strip center reflected in Figure 3 is otherwise fully occupied, appears to attract especially strong lunch time traffic, and is in very good condition. According to existing tenants at this strip center, this vacancy was most recently occupied by a sushi restaurant, which closed less than a year ago.

The property reflected in Figure 1 is located within an older retail node that has an overall confusing layout and corresponding confusing pattern of circulation, and has other retail vacancies. Yet, this

<sup>34</sup> King, page 5.



property is moderately well-maintained, with none of the existing vacancies exhibiting signs of urban decay (see next section **Urban Decay and Physical Deterioration**). Of perhaps most relevance, however, is that while the space in Figure 1 appears vacant and has a space available sign posted at the roofline, it is technically leased to neighboring Strong Fitness. According to the leasing agent, contacted at the number posted on the building, the space was leased by Strong Fitness for expansion space. However, after realizing the costs involved, Strong Fitness decided to forego the expansion plan and is now seeking to sublease the space. The space has been available for sublease for about four to five months, with some interest exhibited. The leasing agent reports there is one undisclosed prospective tenant currently very interested in the space and negotiations are underway to see if mutually agreeable terms can be established.

In all likelihood, by the time Life Time Fitness is built and operational, Dr. King's Figures 1 and 3 vacancies in centers with existing fitness facilities will be absorbed. It is not reasonable to assume these spaces will remain vacant for the duration of time necessary for Life Time Fitness to achieve project approvals, construction, and stabilization. Roseville has a strong retail market, with almost consistent quarterly net retail absorption for the past three years as demonstrated in Exhibit 2. This positive net absorption suggests there is no reason to anticipate that the existing vacancies identified by Dr. King will continue to be vacant when Life Time Fitness is operational, therefore compounding center vacancy if the existing fitness center tenants are displaced as purported by Dr. King. Furthermore, given the dynamic nature of retail, these fitness centers themselves might choose to relocate for other reasons, and thus they may be at other locations at the future point in time when Life Time Fitness achieves operations and stabilization. For example, Strong Fitness might ultimately choose to again explore expansion opportunities and relocate to satisfy this need.

There are yet three other vacancies cited by Dr. King. These vacancies prove what is indisputable, that there are retail vacancies in Roseville and Rocklin. There is nothing unusual or surprising about this. Moreover, this cannot be said enough, some degree of retail vacancy is good for a market, encouraging movement and market fluidity. Among the three other vacancies cited by Dr. King, two are in Roseville (Figure 2, 394 N. Sunrise Avenue and Figure 4, 5781 Five Star Boulevard). What is perhaps fortuitous from an urban decay perspective, Dr. King highlighted one vacancy in particular that has been vacant for several years. This is the former California Backyard location corresponding with Figure 4. This vacancy is located in Fairway Commons, as part of a node of thriving power center tenants, including Costco, Home Depot, and other strong regional tenants, such as Guitar Center, Staples, JoAnn, and Sprouts. Despite being vacant for more than two years, this 20,000-square-foot retail space, as proven by Dr. King's photograph, is in good physical condition and displays no signs of deterioration. A phone interview with the owner/manager of this property indicates that the space can be divided into two smaller tenant spaces of approximately 10,000 square feet. In a November 19, 2013 interview, the property ownership indicated that several parties are currently "very interested" in the space, either for the entire area or the smaller divided spaces.<sup>35</sup> Therefore, it sounds as if this retail vacancy may be fully or partially backfilled in the near future. Further, this retail node does not have any fitness center tenants; there should therefore be no risk of any deleterious impact on this center even if any fitness centers close in the future.

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<sup>35</sup> Telephone interview with Merlone Geier Partners representative, November 19, 2013.



The good physical condition of the former California Backyard space at 5781 Five Star Boulevard property proves that properties with relatively prolonged vacancies in Roseville are well maintained and do not slip into a downward spiral of decay and deterioration. Instead, the property owner is maintaining the property in good physical condition with no deleterious impact on the environment. The same is the case with the vacancy depicted in Figure 2 at 394 N. Sunrise Avenue. This is the former location for Thomasville Furniture, which relocated to Creekside Town Center on Galleria Boulevard in July 2012. While vacant for almost 1.5 years, this space, which has leasing challenges due to its access and circulation, is in good physical condition and again displays no signs of urban decay or deterioration.

Not only are the above-mentioned Roseville retail vacancies in good condition, but a visual survey of many of Roseville's retail nodes by ALH Economics revealed near uniform good maintenance of retail properties in Roseville, both occupied and vacant. This includes retail located along Douglas Boulevard, Foothills Boulevard, Galleria Boulevard, Eureka Road, North Sunrise Road, Fairway Drive, and Cirby Way. ALH Economics visited many retail centers located along these roads, including older centers with and without relatively high vacancy as well as newer centers with and without vacancy. As stated, all are in good physical condition. As an example, Elk Hill Plaza at 3992 Foothills Boulevard is an older center with a number of existing vacancies, four of which are located in a building with a total of seven tenant spaces. Despite this high vacancy, this building is in good physical condition, demonstrating high standards for property maintenance in Roseville. Yet other retail vacancies are maintained in good condition. For example, the small center Eureka Ridge Plaza at 1480 Eureka Road has approximately 11 tenant spaces, of which three are currently vacant, although improvements are underway for one of these spaces. The vacancies at this newer center, built in 2005, are so well maintained that on first examination they do not appear to be vacant.

In summary, ALH Economics' visual examination indicates that Roseville's retail properties are in good condition. As stated earlier, the retail market in Roseville is of most relevance to Dr. King's concerns about the threat of urban decay since all the fitness centers he specifically identified as possibly at risk of displacement from Life Time Fitness and VillaSport are located in Roseville. This additionally includes even the large majority of all the fitness facilities he identified as competitive and thus at general risk of displacement. Even if there were any merit to Dr. King's claim that a quarter of the existing fitness clubs could close, ALH Economics does not foresee the potential for the physical decline of commercial retail space in Roseville. As a case in point, for Roseville's vacancy rate to increase by 1.0% to a still reasonably healthy 7.4%, an additional 99,356 square feet of space would need to be vacated.<sup>36</sup> This is more than twice the amount of estimated square feet of fitness facility space identified by Dr. King, of which only 28,500 square feet are located in Roseville (excluding Rocklin and Citrus Heights facilities listed on Exhibit 2). This amount of space comprises less than 0.3% of the City's retail base. Even if all these existing fitness centers closed, the impact on Roseville's retail vacancy rate would be nominal. According to data presented in Exhibit 2, the Roseville market absorbed almost twice this amount of retail space during third quarter 2013 alone. Therefore, based on the condition of existing vacancies, the nominal amount of space, and the demonstrated strength of the market, the worst case increase in inventory predicated upon Dr. King's analysis is not suggestive of conditions leading to urban decay.

<sup>36</sup> Calculated as follows: 10,397,841 existing inventory \* (.064+.01) – 670,084 (See Exhibit 2 for existing inventory of 10,397,841 square feet, existing vacancy rate of 6.4%, and existing vacancy totaling 670,084 square feet).



In his discussion about fitness centers at risk of displacement, Dr. King also references that some area fitness centers are located in office/flex space and says there is a threat of urban decay in the office market if some of these facilities close. This includes four competitive centers included on his Exhibit 2. These are California Family Fitness in Rocklin with an estimated 25,000 square feet, Roseville Health & Wellness in Roseville with an estimated 15,000 square feet, and two "small" facilities with an estimated 500 members each. These latter facilities are Fitness MD in Roseville and Rocklin Crossfit in Rocklin. Based on Dr. King's figures and assumptions, ALH Economics assumes that Dr. King would estimate these four facilities total 50,000 square feet. This assumption includes an allocation of 5,000 square feet each to the smaller facilities, which was derived by multiplying Dr. King's estimated 500 members by the earlier referenced 10 square feet per member he seems to assume in his analysis.

According to Colliers International, at the end of first quarter 2013 the Roseville/Rocklin office market had 11.9 million square feet of office space, operating at 21.1% vacancy.<sup>37</sup> The combined square footage of the fitness facilities located in office/flex space comprises a scant 0.42% of the combined city office market. Regardless of the prevailing vacancy rate at the time, this is the amount the vacancy rate would increase if these two facilities closed due to displacement. This is an insignificant figure and would not have a noticeable impact on market conditions. Further, Roseville Health & Wellness comprises the larger increment of this space. This facility follows a medical model for fitness, including offering the area's only saltwater pool,<sup>38</sup> and is located in an office node that includes many other medical offices, including Kaiser Permanente. This more medical orientation alone should provide this facility with insulation from any competitive pressures resulting from Life Time Fitness and Villa Sport. Further, all of the properties in this node are very well maintained. Therefore, not only is the closure of this facility unlikely, but even if that occurred, the strong existing area property maintenance suggests the property would be well maintained in keeping with the other properties in this node.

To close, despite strong retail market conditions in Roseville, one vacancy example cited by Dr. King is exhibiting signs of poor maintenance. This is his final example, comprising Figure 5 at 6671 Stanford Ranch Road in Rocklin. This space, located in Willow Rock Plaza across Stanford Ranch Road from Roseville, totals approximately 20,000 square feet and was a former Food Source grocery store, which is Raley's more warehouse-oriented grocery operation. The property has plywood over the doors and windows and areas of paint on some of the boards, appearing to be an effort to cover up graffiti. According to media sources, the store was closed in mid-2006. Despite its closure, Raley's continues to hold and make payment on the lease, which does not expire until September 2015.<sup>39</sup> Therefore, similar to the above-referenced vacancy next to Strong Fitness, this property is technically leased. However, according to the property owner/manager, interest in the space has been exhibited, but because Raley's holds deed restrictions there are constraints regarding prospective new tenants. Occupancy at this center, the balance of which is under separate ownership from the former Food Source space, does not appear effected by this lack of an anchor tenant. There is only one other small shop vacancy at this center, with other tenants including personal services, medical services, a veterinary hospital, restaurants, smoke shop, and postal center, among others. Notably, this center

<sup>37</sup> "Office Report, Sacramento Office Insights," Volume 1, 1<sup>st</sup> Quarter 2013, Colliers International. Data are combined for Roseville and Rocklin. See Appendix C.

<sup>38</sup> <http://www.rosevillehwc.com/aquaticCenter.php>

<sup>39</sup> Telephone interview with Merlone Geier Partners representative, November 19, 2013.



does not include a fitness center tenant. Hence while this Rocklin center exhibits signs of deterioration, any future decline could not be attributable to displacement impacts due to Life Time Fitness or VillaSport because there is no fitness center present that could be displaced.

### **Urban Decay and Physical Deterioration**

*Dr. King presents his definition of urban decay and physical deterioration and shares his perspective on resulting policy implications, indicating that visible symptoms of physical deterioration and abandoned buildings signal lack of public policy concern and invite vandalism, graffiti, arson for profit, among other negative characteristics. His definition of evidence of urban decay includes such markers as plywood boarded doors and windows, extensive gang graffiti and offensive words painted on buildings, overturned dumpsters, homeless encampments on the property or doorways, among others. He further presents his opinion that as urban decay becomes more apparent property owners defer or cease making costly maintenance and repairs, which in turn leads to vacancies and lower lease rates, exacerbating urban decay. He further notes that while shopping centers may be well maintained now, this should not be expected if vacancies are prolonged, leading to a downward spiral. In addition, he suggests that health clubs may have specific infrastructure or configurations, such as pools, that may make it harder to backfill if they become vacant.*

Dr. King's concerns about lack of public policy focused on the condition of physical property in Roseville is unwarranted. As stated previously by ALH Economics and supported by facts and analysis, urban decay is unlikely to result from the operations of Life Time Fitness, alone or in combination with VillaSport. However, in the event some existing fitness facilities in Roseville (where the majority identified by Dr. King are located, including the ones he specifically singled out), owners of commercial retail properties are generally financially motivated to maintain property in a manner appropriate to retain existing tenants and attract new retail tenants. This appears to be the case in the City of Roseville, as evidenced by the overall positive prevailing physical condition of the City's retail vacancies. If property owners lag, however, and property maintenance begins to show signs of deferred maintenance or other disrepair, the City has regulatory controls that can be implemented to avoid the onset of deterioration or decay.

The City of Roseville's ordinances, such as the City of Roseville Municipal Code of Ordinances Chapter 10.54 on Nuisance Abatement; Chapter 16.34 on Administrative Penalty on Owners of Long-Term Boarded and Vacant Buildings Which are Not Under Repair or Actively offered for Sale, Lease, or Rent; Chapter 16.35 on Abatement of Substandard Buildings; Chapter 9.20 on Abatement of Weeds, Dirt, Rubbish, and Rank Growths; and Chapter 10.53 on Spray Paint and Graffiti, require property owners to maintain their properties so as not to create a nuisance by creating a condition that reduces property values and promotes blight and neighborhood deterioration.<sup>40</sup> Enforcement of these ordinances can help prevent physical deterioration due to any long-term closures of retail spaces, such as fitness facilities. The City of Roseville's Code Enforcement Department is part of the Development Services Department. The Department currently has one Code Enforcement Supervisor, one Code Enforcement Inspector, one Code Enforcement/Building Inspector, one Code Enforcement/Housing Inspector, and one temporary weekend Sign Abatement Inspector.

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<sup>40</sup> City of Roseville, "Municipal Code," <http://qcode.us/codes/roseville/> (accessed November 2013).



Code enforcement is done on both a pro-active and complaint basis. Public complaints can be made through the City's website, by email, and by calling the 24-hour enforcement hotline. The Code Enforcement Department works with residents, neighborhood associations, public service agencies, and other City departments to help resolve any violations on a voluntary basis. According to the City of Roseville, in order to attempt resolution of the violation before actual enforcement action is taken most violations will receive a warning, either verbal or written. If voluntary compliance is not obtained the City has several ways for enforcing code requirements, including:

- **Administrative Citation - Remedy** designed to address minor (one-time) violations. The fines increase with each offense. Administrative citations are standard forms, like traffic citations, that include blanks for entering the date, address, code section violated, and the penalty amount. Fines range from \$100 to \$500.
- **Administrative Compliance Order - Remedy** designed to address ongoing and/or continuing violations that are relatively permanent in nature. Administrative compliance orders are in the form of a letter detailing specific violations and have a fine set by the Board of Hearing Examiners. If the resident or business fails to comply with the compliance order, follow-up legal action may include further correspondence, litigation, or referral to a hearing panel. This process also allows the City to assess administrative penalties and costs incurred by the Code Enforcement staff. Fines range from \$25.00 to \$500.00 per day, with a maximum of \$50,000.<sup>41</sup>

In addition, according to Municipal Code Chapter 2.52.130, if a violation has not been corrected by the allotted time in the Administrative Order, the City or a contracting agent will abate the problem. The actual cost to remedy the violation, administrative costs, and any other associated costs will be at the expense of the property owner.<sup>42</sup>

According to the City of Roseville Code Enforcement Department, they received 2,041 complaints in fiscal year 2011-12 and 1,953 in 2012-13. Of the complaints received in 2011-12, 839 violation cases were opened and 839 were closed, equaling a closure rate of 100%. In 2012-13, 914 violation cases were opened and 906 were closed, equaling a closure rate of 99%.<sup>43</sup> Historically, roughly one-third of complaints pertain to commercial properties, and those that do pertain to issues not typically associated with urban decay.<sup>44</sup> Not all complaints pertain to commercial properties. The few categories in which commercial properties are estimated to comprise approximately 30% or more of the complaints include Sign Violations, Work Without Permits, Vacant Structures, and Expired Permits. The nature of these complaints suggest very little correlation with conditions conducive to urban decay. For the remaining complaint categories, commercial properties comprise approximately 0% – 5% of the cases. These categories include Property Nuisances, Substandard Conditions, Encroachments, Weeds, Zoning Violations, Noise, Waster Water, and other less common complaints.

<sup>41</sup> City of Roseville, "Code Enforcement,"

<http://www.roseville.ca.us/civicax/filebank/blobdload.aspx?blobid=4279> (accessed November 2013).

<sup>42</sup> City of Roseville, "Municipal Code," <http://qcode.us/codes/roseville/> (accessed November 2013).

<sup>43</sup> Code Enforcement Department, Code Enforcement Inspector, City of Roseville; telephone interview conducted November 14, 2013.

<sup>44</sup> Complaint information provided by Code Enforcement Department, November 21, 2013.



As one would expect from this high complaint closure rate, and low percentage pertaining to commercial properties, during fieldwork in November 2013 there were no visible signs of litter, graffiti, weeds, or rubbish associated with existing commercial nodes and corridors in Roseville. There were a few instances of small amounts of trash near some commercial properties, but mostly fast food-related, such as empty cups and straws. All vacant properties were well-maintained with no signs of decay or deterioration. Thus, ALH Economics concludes that existing measures to maintain private commercial property in good condition in Roseville are effective and would serve to preclude the potential for urban decay and deterioration in the event any existing fitness centers close following the operations of Life Time Fitness, alone or in combination with VillaSport.

### **Mitigation**

*Dr. King indicates that given the substantial amount of vacant real estate that it is disturbing that no mitigation plan was proposed. He suggested it might be possible to find a suitably large vacant space in the area or that a mitigation fee might also be appropriate.*

The preceding review of Dr. King's November 4, 2013 Memo indicates that Dr. King's analysis and conclusions are flawed, and that urban decay will not result from development of the Life Time Fitness Project. Existing retail vacancy is low in Roseville, vacancies are well maintained and do not exhibit existing signs of decay, and sufficient demand exists to absorb prospective membership at the Life Time Fitness project and existing area fitness facilities. Consequently no impacts will occur warranting mitigation.

### **Conclusion**

*Dr. King concludes his memo by repeating his major points, that development of Life Time Fitness and VillaSport will result in increased vacancies in the Roseville area, that at least 25% to 33% of existing fitness centers will close. Dr. King indicates his conclusions regarding urban decay impacts are the same with or without the cumulative impacts of VillaSport. He further reinforces his opinion that Life Time Fitness will exacerbate the close to 25% vacancy rate in Roseville/Rocklin strip centers and that it will take decades for this vacancy rate to fall to reasonable levels, but in the meantime, rents will fall and maintenance will suffer, leading to urban decay.*

To summarize ALH Economics' preceding comments on Dr. King's analysis and opinions, ALH Economics believes that Dr. King's analysis is based upon faulty and undocumented assumptions. His work is sloppy and often unsubstantiated, resulting in the following flaws:

- Grossly underestimated existing fitness facility demand
- Incomplete inventory of supply of existing fitness facilities
- Unsupported estimate of existing club space use and membership
- Use of obsolete, misleading, and selective data
- Erroneous estimate of prospective Life Time Fitness membership
- Underestimate of VillaSport membership
- Overreliance on macro-level retail market data that obscure more favorable conditions in Roseville
- Misunderstanding and misrepresentation of retail market trends



There are yet other flaws in Dr. King's analysis, which together he uses to fabricate a story that development of Life Time Fitness, with or without the cumulative impacts of VillaSport, will lead to a significant increase in retail and office vacancy rates, resulting in urban decay. He therefore reaches the conclusion that the omission of an urban decay analysis renders the EIR for Life Time Fitness inadequate and incomplete.

As stated earlier, an urban decay analysis is only necessary if there is the perceived potential for urban decay to result from project development. Upon initiating the Life Time Fitness EIR, the City of Roseville had no reason to anticipate that urban decay would result from development of the project. Therefore, the EIR was not deficient for failing to include such an analysis. In the context of CEQA, such analyses have historically been focused on large-scale retail development, mostly of a big box orientation. There are limited fitness facilities in Roseville that are fully comparable to the proposed facility, such that the proposed facility will expand the offerings in the health and wellness market in Roseville. Moreover, retail vacancy in Roseville is very low and vacant retail spaces are moderately to well-maintained, including among some of the City's oldest retail centers. Even retail vacancies that are of relatively long duration for Roseville, such as one to two years, are well-maintained. Finally, no new retail development in Roseville has been tied to erosion of the physical condition of Roseville's retail base. Therefore, there is no reason to anticipate that urban decay would result in Roseville from development of Life Time Fitness, and correspondingly no reason to include an urban decay analysis in the EIR. Further, the analysis included herein, conducted by ALH Economics with more reasoned and documented assumptions, indicates that urban decay is not an anticipated consequence of development of Life Time Fitness.

#### **ERRONEOUS KING PREDICTIONS REGARDING URBAN DECAY**

The preceding analysis puts into question Dr. King's accuracy and credibility as an "expert" witness. Dr. King's submission at the very end of a project's administrative process of materials insisting that a CEQA document is inadequate and must be redone is not a one-time event, but rather is part of an established pattern of inaccurate doom and gloom urban decay predictions made repeatedly by him throughout California and beyond. Similar to what occurred on November 4, 2013 in Roseville, it is common practice for Dr. King to submit an 11<sup>th</sup> hour claim that a project seeking EIR certification has an inadequate EIR due to an insufficient urban decay analysis. These claims are accompanied by memos similar to the one Dr. King submitted regarding Life Time Fitness via the law firm Herum Crabtree, or sometimes his claims are presented in the form of reports or declarations to the court. Oftentimes there are math or other errors in Dr. King's reports (such as referenced earlier by the Court of Appeal, Fifth Appellate District, State of California), but even more critically, his predictions regarding business closure and resulting urban decay are repeatedly proven to be inflammatory and wrong.

Dr. King's urban decay memos or reports are always presented in opposition to proposed development projects, indicating a clear bias by Dr. King. These materials were historically prepared by Dr. King as the primary author under the umbrella name California Economic Research Associates (CERA) in association with others but more recently have been solely prepared by Dr. King. Most frequently these reports pertain to planned Walmart stores, such as in the California cities of American Canyon, Anderson, Antioch, Chico, Clovis, Crescent City, Fairfield, Galt, Gilroy, Hanford, Lodi, Marysville, Merced, Milpitas, Oroville, Red Bluff, Redding, Rocklin, Stockton, Suisun City, Tracey, Ukiah, Yuba City, and Yucca Valley, plus Tumwater, WA. Dr. King has also prepared documents



claiming inadequate urban decay analyses for projects centered around other retailers, such as Home Depot in Eureka, Home Depot in Thousand Oaks, Bel-Air in Nevada County, an Albertson's expansion in Carpinteria, and Lowe's in Sonora. Dr. King's assertions regarding urban decay are not focused on retail development alone, as he has also submitted materials claiming the risk of urban decay for a regional detention center in Riverside County. There are likely yet other memos and reports authored by Dr. King for projects not cited above.

In all these documents, Dr. King consistently and routinely faulted the environmental documentation for being inadequate and, similar to Roseville, made his own dire statements and predictions about what would happen after the proposed facility was developed. A review of some of the memos and reports submitted by Dr. King shows that he is consistently wrong in his analysis and conclusions.

ALH Economics performed such a review of some of Dr. King's past predictions. Three case studies are presented, all related to development of Walmart stores. The case studies, representing Walmart development over a span of time and throughout California, include Fairfield, Yuba City, and Gilroy. In all three of these cases, Walmart expanded and relocated existing stores. These cases were selected because they are instances where stores Dr. King claimed would cause urban decay have been built and where ALH Economics has some familiarity or conducted previous relevant research following up on Dr. King's predictions. In the case of the prior research, this was conducted when the Principal of ALH Economics, Amy Herman, was previously in the employ of CBRE Consulting (see Amy Herman and Firm Introduction in Appendix A). The case study information, including Dr. King's urban decay and other economic impact predictions, follows.

### **Fairfield**

In December 2006 Dr. King wrote a 13-page memo to the Fairfield City Council regarding the EIR for a proposed 202,630-square-foot Walmart Supercenter to be located at the Mission Village Shopping Center on North Texas Road. This was a planned retail project involving the demolition of an aging retail center that was almost entirely vacant and had been underutilized since 2000 when its former Albertson's anchor store closed. Walmart's development plan involved closing its smaller, existing Walmart store on Chadbourne Road, also in Fairfield. In his memo, Dr. King indicated that based on his review, it appeared that the EIR's treatment and mitigation of economic issues and urban decay was insufficient and that the EIR should not be certified.<sup>45</sup> Dr. King identified many perceived flaws in the EIR and said his analysis indicated that development of the Fairfield Supercenter would close at least two existing grocery stores. He further indicated that since these stores anchored shopping centers, the total impact in terms of urban decay would be substantially greater than just the closure of these stores. Dr. King further stated the following regarding the existing Walmart store that would be vacated by Walmart:

"It will be very difficult to retenant the existing Discount Store space and retenanting this space will displace other currently vacant commercial space in the area. The existing Discount Store is an older property with few windows and not designed for anything besides a big box store. We seriously doubt that a suitable tenant will be

<sup>45</sup> All references to Dr. King's Fairfield analysis pertain to a memo prepared by him on December 6, 2006, addressed to the Honorable Members of the Fairfield City Council, Re: EIR for Proposed Mission Village Supercenter. See Appendix C.



found." ..... "Adding to the already plentiful available commercial real estate space on Chadbourne Road will detract from the area and the closed Discount Store can be expected to create significant urban decay."

Another major topic of Dr. King's memo was the disposition of a Kmart store located on North Texas Street next to the future Walmart site. Of this store, Dr. King said:

"The proposed site is directly adjacent to the Kmart shopping center and it is very apparent that this center is experiencing difficulties. The overall appearance of the center is poor and routine maintenance has been deferred.....Kmart competes directly with Wal-Mart and it is clear that a Supercenter would put the Kmart discount store, and eventually the entire shopping center, out of business. Thus, opening the Supercenter in the Mission village shopping center would lead to the subsequent closing of the Kmart center."

Notably, the economic analysis prepared for the project's EIR by the real estate economics firm Economic & Planning Systems indicated that the Kmart center, which also included Big Lots, Radio Shack, Valero Gas Station, Burger King, Dollar Tree, a bingo center, and a thrift store, was likely to be particularly vulnerable to the competitive threat from Walmart.<sup>46</sup> This Kmart store was noted to have weak annual sales even in the absence of Walmart, and its long-term viability was cited as further jeopardized by the company's corporate performance at the national level.<sup>47</sup> However, as noted by EPS, the Walmart project was anticipated to eliminate the most significant potential source of existing urban decay conditions along North Texas Street given its redevelopment of the 18-acre Mission Village Center. The EPS analysis further stated "From an urban decay perspective, any new vacancies that might occur at the Kmart Center across the street because of the additional competition will be at least offset by improved conditions at the Mission Village Center." <sup>48</sup>

The Walmart Supercenter opened on North Texas Street in November 2010. In February 2011, the former Walmart store at Chadbourne Road was sold to Specialty Properties Partners, LLC.<sup>49</sup> Shortly thereafter in June 2011, Specialty Sales Classic opened,<sup>50</sup> an industry leader in classic, antique, and exotic cars whose California showrooms contain the largest indoor inventory of highly collectable vehicles in the western United States. With four Bay Area showrooms, the Fairfield showroom is their largest. Recently, in addition to their showroom space, Specialty Sales augmented the use of the property by opening a banquet hall in a portion of the space. Thus, a property for which Dr. King doubted a suitable tenant could be found and that was designed only for a big box store was sold to a new user three months after Walmart vacated the property and opened with a new use a scant four months later, and later modified to include a second new use. Clearly Dr. King's opinion regarding the reuse potential and appeal of the former Walmart space in Fairfield was wrong. And clearly the

<sup>46</sup> "Wal-Mart Supercenter Economic Impact Analysis," Final Draft Report, Prepared for City of Fairfield, Prepared by Economic & Planning Systems, Inc., October 2005, page 53. See Appendix C.

<sup>47</sup> Ibid, page 53.

<sup>48</sup> Ibid, page 67.

<sup>49</sup> See Realquest printout with Recording/Sale Date in Appendix C.

<sup>50</sup> See <http://www.specialtysales.com/showroom.php?location=Fairfield>. Copy included in Appendix C.



reuse of this property did not detract from the area and create significant urban decay as stated by Dr. King.

Dr. King was wrong yet again about future events in Fairfield when he said at least two grocery stores would close. For context, he specifically said at least two of the following stores would close:

- Raley's on North Texas Street in Fairfield
- Raley's on Sunset Avenue in Suisun City
- Food Maxx on West Texas Street in Fairfield
- Albertson's on North Texas Street in Fairfield

Even prior to the Walmart opening, the Albertson's on North Texas Street closed as part of the chain's bankruptcy. However, by July 2010 (possibly earlier), and several months before the Walmart opening, a new grocery tenant, Mexico Meat Market, took over the entire space. This store remains in operation three years after opening of the Walmart Supercenter. In addition, the other three grocery stores referenced by Dr. King are also open and fully operational. This even includes the Food Maxx on North Texas Street, which ALH Economics believes may be the store Dr. King meant to mention since the North Texas Street Food Maxx, another discount retailer, is located closer to the Walmart Supercenter site than the chain's store on West Texas Street. Regardless, both Fairfield Food Maxx stores remain open three years after Walmart relocated and expanded to North Texas Street. The continued operations of these stores, and even the opening of a new store with the knowledge of the pending opening of a nearby Walmart Supercenter indicates that Dr. King was wrong about these stores closing and by extension wrong about the shopping centers where they are located experiencing urban decay.

Finally, Dr. King said that the nearby Kmart store would close and that the entire shopping center where Kmart is located would close. This is a subject that was also discussed in the EIR, with the potential for closure of this store also referenced in the EIR. This Kmart store did indeed close, but only in September 2013, almost three years after the opening of the Walmart Supercenter. This closure coincided with the end of the store's lease, and Kmart opted not to renew the lease. As noted by Dr. King and in the EIR, this store had marginal operations even before Walmart moved next door. According an Economic Development official with the City of Fairfield, Kmart sales dropped somewhere between 10-20% after the Walmart store opened.<sup>51</sup> However, as noted, the store remained in business until its lease expired.

ALH Economics visited the Kmart site in November 2013. The property is well maintained despite losing its anchor tenant. Approximately two years prior to Kmart's closure, or roughly one year after the Walmart Supercenter opened, the adjoining Big Lots store closed, in pursuit of a larger space in the market. While the overall property is referred to as the Kmart center, the Kmart and the Big Lots spaces are under separate ownership from the other site uses. This separate ownership includes the bingo center space, which closed a couple years ago. Aside from these uses, all other site uses referenced by EPS in their report are still there, including Dollar Tree, Radio Shack, and Burger King. While Dr. King might argue that these uses will close and leave now that the Kmart is vacant, actions by the Kmart store owner suggest otherwise. In early November 2013, just a scant two months after

<sup>51</sup> Telephone interview with Karl Dumas, Senior Economic Development Project Manager, City of Fairfield, November 15, 2013.



Kmart's closing, the property owner submitted a Development Review package to the City of Fairfield to initiate rehabilitation activities on the site. These plans include subdividing the combined Kmart and Big Lots space into at least four spaces, including an approximately 50,000-square-foot junior anchor space. According to the City of Fairfield, several uses are interested in the space, including a fitness center and general retailer.

In addition to the property ownership planning to subdivide the building area, other site plans include a new façade, upgrading the parking lot, adding pads for restaurants, and upgrading signage and landscaping. These development plans reflect activities completely contrary to Dr. King's forecast of urban decay following closure of the Kmart store. Instead, the property owner is reinvesting in the property, taking the opportunity to modernize the space and make it more attractive. This hardly suggests that the property will fall into disrepair and ultimately contribute to urban decay, as Dr. King otherwise suggests. Hence even the anticipated closure of an existing store, which may or may not have been caused by competitive pressure from the Walmart Supercenter, is not a portent of urban decay, and instead provides an opportunity to improve the existing retail base. This, and the preceding findings regarding the swift sale and backfilling of Walmart's former store space and the continued operations of grocery stores Dr. King said would close, demonstrates how fundamentally wrong Dr. King's findings and opinions were regarding the potential for Walmart-related urban decay in Fairfield and strongly cast into question his credibility and expertise.

### Yuba City

In April 2006, a Walmart Supercenter opened in Yuba City. Similar to Fairfield, this store comprised an expansion and relocation of an existing Walmart store. The EIR for this project was prepared in approximately 2004. During the public review process for the EIR, Dr. King (along with Sharmila King) submitted a March 15, 2004 memo to attorney William Kopper titled "Reply Draft Environmental Impact Report (DEIR) prepared in conjunction with the proposed Yuba City Super Wal-Mart." In this memo, Dr. King declared that "We believe that the creation of a Super Center will result in an oversupply of retail space in Yuba City, forcing many anchor stores, particularly grocery stores, out of business, blighting two malls."<sup>52</sup> Further, in a statement foreshadowing his predictions in Fairfield, he said "... we believe that at least two of the following stores are likely to close if the Super Center is built: Raley's, Albertson's, Grocery Outlet. The result will lead to increased blight in Yuba City." With regard to the existing Walmart store that would be vacated by Walmart upon completion of the Supercenter, Dr. King said "Given the size of the existing space and its unattractiveness for most retailers, we believe the space will be empty." He also said the Walmart would reduce traffic in the downtown area and would compete directly with over half of retail shops downtown and that dozens of businesses could close, including in downtown. Dr. King's memo specifically included pictures of numerous downtown storefronts, as examples of stores that he said would compete with Walmart. To summarize, based on analysis Dr. King conducted on the retail market and grocery market in Yuba City, Dr. King said the Walmart Supercenter would cause two out of three specific grocery stores to close, that the existing Walmart store would remain empty, and that numerous businesses in downtown Yuba City would close.

<sup>52</sup> All references to Dr. King's Yuba City analysis pertain to a memo prepared by him on March 15, 2004, addressed to William Kopper, Attorney at Law, Re: Reply Draft Environmental Impact Report (DEIR) prepared in conjunction with the proposed Yuba City Super Wal-Mart. This memo was coauthored by Sharmila King with Philip King listed first as the primary author. See Appendix C.



In June 2007, Amy Herman, the Principal of ALH Economics, had reason to follow up on economic impacts in Yuba City pursuant to the April 2006 opening of the Walmart Supercenter.<sup>53</sup> At that time, information gathered from the Yuba-Sutter Economic Development Corporation (EDC) indicated that no negative impacts had been noted associated with the Walmart opening. The Yuba City-Marysville area had experienced tremendous population growth coupled with increasing household incomes and the area was thriving.

As of June 2007, the EDC indicated no major retailers had closed in Yuba City, although one small hardware store was on the verge of closing, and ultimately did close due to family retirement. The lack of existing store closures in Yuba City was noted even in light of the opening of another Walmart Supercenter in nearby Marysville, just a few miles from the Yuba City Supercenter. In addition, the EDC further indicated that the existing Grocery Outlet was upgrading and relocating within the market. Thus, more than a year after the Yuba City Walmart Supercenter opened, no existing grocery stores had closed, and one of the existing grocery stores Dr. King said might close was relocating and expanding. These actions demonstrate that at the time, there were no known negative impacts on the existing grocery market in Yuba City attributable to the Wal-Mart Supercenter.

Fast forward to the present, and Yuba City has since experienced the Great Recession and unemployment per City sources is 5% greater than the national average and historically among the top five unemployment rates in the nation.<sup>54</sup> Despite this, the City's major shopping centers are at least 85% leased, and the City depicts the retail base as strong. Within a year of the new Walmart store opening in 2006, the former Walmart store was sold to Lowe's Home Improvement Warehouse, which proceeded to demolish the former Walmart store and build a new Lowe's store. The City's Economic Development officer indicates the Lowe's store opened around 2007, comprising swift reuse of the former Walmart site. Already by 2007 the Grocery Outlet store was expanding and relocating. Similar to Fairfield, the Albertson's store closed for corporate reasons, but was taken over by Save Mart. This Save Mart store remains in operation today, as does the Raley's store that Dr. King said could close. Thus, all three of the grocery stores, among which Dr. King said two would close, continue to operate side by side with the Walmart Supercenter. Further, the City's Economic Development officer is not aware of any major grocery stores that closed due to competitive pressures from Walmart.

Dr. King's Yuba City memo included photographs of downtown stores he said would compete with Walmart, implying that at least half these stores would close because of Walmart, either due to competitive pressures or reduced downtown traffic. These stores, with some street names listed but no addresses, were as follows:

- Friends and Heart
- Evan's General Store (Plumas Street)
- *Pelton's Party Rental and Sales*
- Outlet Discount Store

<sup>53</sup> At that time Ms. Herman was a Senior Managing Director at CBRE Consulting, which was the successor firm to Sedway Group. See Appendix A for Ms. Herman's professional history.

<sup>54</sup> Telephone interview with Darin Gale, City of Yuba City Economic Development Manager, November 15, 2013.



- The Potting Barn Annex (Plumas Street)
- *Gaiser Pets (Plumas Street)*
- *Butler Cleaners*
- *Larry's Business Center (Plumas Street)*

The stores listed in bold italics are confirmed by ALH Economics to still be in operation today. Among the four stores not confirmed, The Potting Barn Annex closed due to a partnership breakup. In a telephone interview with ALH Economics, the former owner of this store confirmed the closure was not related to competitive pressures exerted by Walmart.<sup>55</sup> Because Dr. King did not reference addresses for these businesses in his memo, ALH Economics has not been able to determine the current disposition of the remaining three businesses not denoted in bold italics. These three businesses comprise 38% of the downtown businesses cited by Dr. King as at risk of closure due to Walmart. This percentage is lower than the 50% cited by Dr. King that would close, and could be even lower if some of these businesses relocated or changed business model and/or name, as businesses are wont to do. But most importantly, in the 2007/2008 timeframe, the City of Yuba City launched a \$15 million Streetscape Improvement Project funded through redevelopment on Plumas Street between Highway 20 and Bridge Street.<sup>56</sup> This redevelopment effort included infrastructure reconstruction, sidewalk widening, landscape improvements, installation of street furniture and art, street reconstruction, and other improvements. Vehicular access to the road was not available for almost a year. The City's Economic Development Manager indicates many businesses likely had a difficult time managing during this period, although the City provided signage and other features designed to support existing businesses.<sup>57</sup> Nevertheless, this important public works improvement project could be equally if not more likely a cause for closure of some of the businesses singled out by Dr. King, or there could be yet even other reasons that could instead be part of the normal cycle of business growth and decline. Without access to the former business owners or managers, the reason for business closure cannot be determined. But most importantly, it is very possible that the spaces previously occupied by these likely closed businesses were backfilled by yet other businesses. Because Dr. King's work did not list addresses for these businesses, ALH Economics is not able to follow up and determine the current occupancy status of the spaces. However, the City's Economic Development Manager reports that Plumas Street currently has very few vacancies. Nevertheless, it is important to remember that the ultimate issue and concern regarding urban decay is not business closures but rather impacts on the *physical environment*. Therefore, competitive impacts that may have been exerted by Walmart are immaterial if these properties were vacated and then backfilled by other users.

In addition to the listed stores, Dr. King's memo included a picture of the Sutter Theater and indicated once Downtown Yuba City begins to deteriorate, the theater will close and cause additional blight. In December 2004, the nonprofit Sutter Performing Arts Association was formed as a public effort to save the historical Sutter Theater.<sup>58</sup> Given this effort, it seems likely the theater was already closed when Dr. King included its picture in his March 2004 memo. The timing of the theater's closure aside, Sutter Performing Arts Association has been raising money to restore the facility, with a \$4.0 million

<sup>55</sup> Telephone interview with Joyese Sneed, November 19, 2013.

<sup>56</sup> For a slide show about the improvement project, see:

<http://www.calredevelop.org/External/WCPages/WCWebContent/WebContentPage.aspx?ContentID=1869f>

<sup>57</sup> Telephone interview with Darin Gale, City of Yuba City Economic Development Manager, November 20, 2013.

<sup>58</sup> See <http://www.suttertheater.org/>



goal. According to the City's Economic Development Manager, substantial progress has been made on the restoration, including repair of the exterior as well as roof and electrical work, completed approximately two years ago. Thus the deterioration Dr. King said would occur clearly did not, with rehabilitation work occurring instead.

As in the case of Fairfield, the preceding review of Dr. King's predictions regarding the dire impacts of Walmart on Yuba City's retailers and commercial market conditions do not hold up. None of the grocery stores Dr. King said would close actually closed, the former Walmart site was swiftly and readily reused, including via the development of newer construction, hence upgrading the overall condition of the real estate base. In addition, many downtown stores Dr. King said would be vulnerable to Walmart continue to be in business 7.5 years after the opening of the Walmart Supercenter and the Sutter Theater Dr. King said would deteriorate instead has undergone rehabilitation. Dr. King could hardly have been more wrong in his assessment of Walmart's impact on Yuba City, despite his purported analysis of the retail market and grocery market in Yuba City.

### **Gilroy**

In approximately 2005, Walmart opened a Supercenter in Gilroy. As in Fairfield and Yuba City, this store comprised an expansion and relocation of an existing Walmart store. In the February 17, 2004 report, "Economic Analysis of a Proposed Wal-Mart Super Center in Gilroy, California," prepared by CERA, Dr. King et al. asserted that the opening of the Walmart Supercenter would have a significant negative effect on the downtown and other Gilroy retailers, particularly grocery stores. Dr. King et al. prepared this report for attorney John Gabrielli. In this report, Dr. King et al. declared that the PW Market, Arteaga's, and the Gilroy Village mall would be forced to close within a year of the Supercenter's opening.<sup>59</sup> The report additionally included a list of 74 retailers that would feel serious impacts. Dr. King et al. claimed these impacts would lead to higher vacancy and blight in the City of Gilroy. Dr. King et al. referenced yet other dire consequences for Gilroy, such as a potential rise in unemployment and the opportunity cost to shoppers of more traffic in the area.

In June 2007, Amy Herman, the Principal of ALH Economics, had reason to follow up on economic impacts in Gilroy pursuant to the approximate 2005 opening of the Walmart Supercenter. Through conversations with the Gilroy Economic Development Corporation at that time, approximately 1.5 years after the Supercenter opened its doors, it was clear that the retail market, as well as the overall health of the community, continued to prosper. The Gilroy Economic Development Corporation estimated that retail occupancy citywide was 99 percent. The predictions made by Dr. King et al. did not come to fruition: the downtown was experiencing significant redevelopment including the development of housing, the City's population was growing, unemployment was down, retail center occupancies were high, and the Arteaga's market and Gilroy Village mall (properly identified as the Gilroy Village Shopping Center) were still in operation, with the latter anchored by Rite Aid as it was at the time Dr. King et al. their report. About a year before the Walmart Supercenter opened, in November 2004, the PW Market closed its doors in the Gilroy Village Shopping Center. This followed more than a year of sales declines. A 99 Cent Store and Smart & Final took over the vacant PW Market space, with no residual impact on vacancy due to the PW Market closure. Notably, Smart &

<sup>59</sup> All references to Dr. King's Gilroy analysis pertain to a report prepared by him and two other associates on February 17, 2004, addressed to John Gabrielli, Attorney at Law. The report is titled "Economic Analysis of a Proposed Wal-Mart Super Center in Gilroy, California." See Appendix C.



Final also is a vendor of food items. See's Candy had also moved into the neighborhood center and it was 96% occupied in June 2007. The Town Center Shopping Center, anchored by Grocery Outlet, was also 96% occupied.

The preceding market data refute Dr. King et al.'s claims that within a year of the Walmart store opening existing grocery stores and the Gilroy Village Shopping Center would close. Moreover, Appendix 1 of Dr. King et al.'s report, titled "Businesses we believe will be significantly impacted by [the] proposed Super Center" listed 74 businesses. Of those, Ms. Herman found in June 2007 that more than half were located in the fully occupied Outlet Center in Gilroy and a number of the businesses were, in fact, food manufacturing operations and/or office headquarters. Such uses are highly unlikely to compete in any fashion with Walmart. The list also included a convenience oriented shopping locales, such as a Shell Gas Station Food Mart, three 7 Eleven locations, as well as a classic car shop, none of which face competition from the Supercenter. Thus, this list compiled by Dr. King et al. for the purpose of their analysis was a gross overstatement of the number and type of businesses likely to be impacted by the Supercenter.

In another fast forward to the present, ALH Economics reached out yet again to the Gilroy Economic Development Corporation. Now under new leadership, the Gilroy Economic Development Corporation continues to believe the Gilroy retail market did not experience any negative impacts attributable to the Walmart.<sup>60</sup> Not only are Arteaga's and other grocery stores still in operation that existed when the Walmart store opened but additional major grocery operators have entered the market, such as Mi Pueblo, a leading Hispanic grocery store chain. This indicates that Walmart does not constrain grocery operations in Gilroy. In fact, Mi Pueblo moved into space vacated by Grocery Outlet, which had relocated to a different Gilroy location. This is an example of successful retail backfilling in the market, similar to the earlier backfilling of PW Market by 99 Cent Store and Smart & Final. Another example of successful backfilling is the reuse of the former Walmart space, vacated when Walmart built the new Supercenter. Unlike Fairfield and Yuba City, this Walmart reuse took several years, in some part due to the poor visibility of the site relative to the core retail base in Gilroy, which serves a large regional area. However, Walmart had sold the property almost immediately, and thus the property was under different ownership during its years of vacancy. Approximately two years ago, See Grins RV took over the space, using both the former Walmart building and parking lot for RV displays. See Grins promotes itself as the largest indoor showroom of RV equipment west of the Mississippi. This was an expansion opportunity for See Grins RV, which maintained its smaller facility in nearby San Martin, and recently expanded into Morgan Hill. This reuse therefore comprised a net gain in retail occupancy for the region.

Overall, the combined Morgan Hill/Gilroy retail base is operating at 9.9% vacancy, down from a recent high of 11.0% in 2010.<sup>61</sup> Specifically in Gilroy, the Gilroy EDC indicates that the main retail shopping centers are almost fully leased. Therefore, Walmart does not appear to be having a stifling effect on the local retail base. An exception to the strong occupancy includes a shopping center built in the 2007/2008 timeframe, which never achieved a 40,000-square-foot anchor tenant. However, since this center was built after Walmart's expansion and relocation, the unsuccessful leasing effort can certainly not be attributed to Walmart. In addition, the Gilroy EDC indicates that prior to the Great

<sup>60</sup> Telephone interview with Tammi Brownlow, President, Gilroy Economic Development Corporation, November 15, 2013.

<sup>61</sup> "Santa Clara County Retail Report: Third Quarter 2013," Terranomics Retail Services. See Appendix C.



Recession there was a lot of momentum for Downtown Gilroy. Newer residential development was fully leased or sold. The main constraint experienced by Downtown properties now are regulations regarding unreinforced masonry, which especially contributes to ground floor vacancies in the 1,000 to 3,000 square foot range and deteriorated appearances. Despite these issues, which again have no relevancy to Walmart, the core area of downtown Gilroy between 3<sup>rd</sup> and 6<sup>th</sup> streets is reported to be doing well, with new restaurant, wine bar café, boutique, and coffee shop uses.

In summary, the major grocery store closures predicted by Dr. King et al. after Walmart's opening did not occur, and many of the stores they expected to be significantly impacted by Walmart are not competitive with Walmart and are not even retail operations. Further, the predominant issues impacting optimal development of Downtown Gilroy are regulatory rather than market-based, and again have no bearing on Walmart. In conclusion therefore, Dr. King et al. once again missed the mark in their predictions regarding Walmart's effects in Gilroy.

### Summary

In summary, the preceding review of Dr. King's statements about Walmart impacts in Fairfield, Yuba City, and Gilroy indicate that Dr. King does not have a strong grasp on retail market dynamics and consistently reaches conclusions from his own analysis that are not borne out. In all three of these examples, the urban decay Dr. King stated would occur did not occur, and certainly not within the timeframes stated by Dr. King. Stores he emphatically said would close continue to operate today and properties he said would not be reused currently have strong viable users. These fundamentally wrong and baseless predictions further support ALH Economics' earlier findings that Dr. King's analysis and findings regarding the proposed Life Time Fitness in Roseville are flawed, and do not support his conclusion that urban decay will result from development of Life Time Fitness, with or without the cumulative impacts of VillaSport.

### CLOSING

ALH Economics appreciated the opportunity to prepare this analysis for the City of Roseville. Please let me know if you have any questions regarding the analysis and findings.

Sincerely,

ALH Urban & Regional Economics



Amy L. Herman, AICP  
Principal



## Attachment 10



RESOLUTION NO. 13-471

CERTIFYING A FINAL ENVIRONMENTAL IMPACT REPORT RELATING  
TO THE LIFE TIME FITNESS PROJECT LOCATED WITHIN THE STONERIDGE  
SPECIFIC PLAN, ADOPTING FINDINGS OF FACT, AND ADOPTING  
THE MITIGATION MONITORING AND REPORTING PROGRAM

WHEREAS, Life Time Fitness proposes to construct a two-story, 120,000 square foot fitness facility in the Stoneridge Specific Plan known as Life Time Fitness (Project); and

WHEREAS, the City of Roseville (City) determined that an environmental impact report (EIR) should be prepared for the Project pursuant to the California Environmental Quality Act (CEQA), Public Resources Code sections 21000 *et seq.*; and

WHEREAS, the Notice of Preparation for the Project was circulated for comment by responsible and trustee agencies and the public from March 25, 2013 through April 25, 2013; and

WHEREAS, the Draft EIR for the Project was distributed to the public and various public agencies for review and comment beginning on July 24, 2013 through September 9, 2013; and

WHEREAS, during the public review and comment period, the Draft EIR was reviewed by the City Planning Commission at a public hearing on August 22, 2013; and

WHEREAS, written and oral comments on the Draft EIR were received, and responses to those comments have been prepared and included in the Final EIR; and

WHEREAS, the City Council held a public hearing on the merits of the Project on November 6, 2013; and

WHEREAS, on the day of the public hearing, the City Council received correspondence from the Downey Brand law firm on behalf of VillaSport LLC, in which attorney Christian Marsh offered numerous contentions to the effect that the EIR was legally deficient; and

WHEREAS, during the public hearing on November 6, 2013, the City Council received additional correspondence from the Herum Crabtree law firm on behalf of an unincorporated association calling itself Committee for a Better Roseville, in which attorney Steven Herum contended that the EIR was legally deficient; and

WHEREAS, Committee for a Better Roseville had not previously filed comments on the Notice of Preparation or Draft EIR, but instead only expressed its concerns at the very end of a lengthy administrative process open to the public; and



WHEREAS, an attachment to the correspondence from Herum Crabtree law firm was a November 4, 2013, report from Philip King, Ph.D, to Mr. Herum, in which the author contended that there is "a significant potential for urban decay stemming from this project"; and

WHEREAS, upon the advice of outside CEQA counsel and recommendation of the Assistant City Attorney, the City Council, having received late correspondence from two law firms, opted to close the public hearing and continue the Council's deliberations on the Project until December 4, 2013; and

WHEREAS, the City Council instructed City staff to consider the contentions raised in the new correspondence and to prepare written responses to the contentions made by the Downey Brand and Herum Crabtree law firms; and

WHEREAS, the City subsequently retained the services of ALH Urban & Regional Economics to review the contentions made by Philip King on the subject of urban decay; and

WHEREAS, Amy L. Herman, the Principal of ALH Urban & Regional Economics, has very considerable experience dealing with urban decay analyses in EIRs and has impressive academic and professional credentials, making her a credible expert on the subject in the eyes of the City Council; and

WHEREAS, detailed responses to the contentions made by Downey Brand, Herum Crabtree, and Philip King were prepared by the environmental consulting firm Dudek (which prepared the EIR), City staff, the City's CEQA counsel Remy Moose Manley, LLP, and ALH Urban & Regional Economics; and

WHEREAS, these detailed responses have satisfied the City Council that the contentions made by Downey Brand, Herum Crabtree, and Philip King are without merit; and

WHEREAS, the report prepared by ALH Urban & Regional Economics included a very thorough analysis of the various assumptions underlying Philip King's contentions, finding them to be erroneous in many instances; and

WHEREAS, ALH Urban & Regional Economics summarized its conclusions on this subject as follows:

"To summarize ALH Economics' preceding comments on Dr. King's analysis and opinions, ALH Economics believes that Dr. King's analysis is based upon faulty and undocumented assumptions. His work is sloppy and often unsubstantiated, resulting in the following flaws:

- Grossly underestimated existing fitness facility demand
- Incomplete inventory of supply of existing fitness facilities
- Unsupported estimate of existing club space use and membership
- Use of obsolete, misleading, and selective data
- Erroneous estimate of prospective Life Time Fitness membership



- Underestimate of VillaSport membership
- Overreliance on macro-level retail market data that obscure more favorable conditions in Roseville
- Misunderstanding and misrepresentation of retail market trends"; and

WHEREAS, the report prepared by ALH Urban & Regional Economics also included detailed analyses of past instances in which Philip King, on behalf of other clients, similarly predicted that proposed projects (typically "big box" retailers) would also cause urban decay; and

WHEREAS, with respect to Philip King's track record with respect to his past predictions that various projects, if approved, would cause urban decay, ALH Urban & Regional Economics concluded that its "analysis puts into question Dr. King's accuracy and credibility as an 'expert' witness," and that his "submission at the very end of a project's administrative process of materials insisting that a CEQA document is inadequate and must be redone is not a one-time event, but rather is part of an established pattern of inaccurate doom and gloom urban decay predictions made repeatedly by him throughout California and beyond"; and

WHEREAS, the analysis of Philip King's track record by ALH Urban & Regional Economics included three cases studies based on his comments on projects proposed in the Cities of Fairfield, Gilroy, and Yuba City; and

WHEREAS, in summarizing its conclusions with respect to these case studies, ALH Urban & Regional Economics had the following to say:

"[T]he preceding review of Dr. King's statements about Walmart impacts in Fairfield, Yuba City, and Gilroy indicate that Dr. King does not have a strong grasp on retail market dynamics and consistently reaches conclusions from his own analysis that are not borne out. In all three of these examples, the urban decay Dr. King stated would occur did not occur, and certainly not within the timeframes stated by Dr. King. Stores he emphatically said would close continue to operate today and properties he said would not be reused currently have strong viable users"; and

WHEREAS, CEQA case law has long recognized the authority and ability of agency decisionmaking bodies to discount the testimony of witnesses those bodies find not to be credible (see, e.g., *Quail Botanical Gardens Foundation, Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1603; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 583; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1996) 42 Cal.App.4th 608, 617; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 151; *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1317; and *Benton v. Board of Supervisors* (1991) 226 Cal.App.3d 1467, 1483); and

WHEREAS, based on the report prepared by ALH Urban & Regional Economics and its own familiarity with the real estate market in Roseville, the City Council finds Philip King *not* to be a credible witness, and therefore discounts his testimony; and



WHEREAS, the City Council is persuaded by the expert report prepared by ALH Urban & Regional Economics, which constitutes substantial evidence, that the Project will not cause urban decay and certainly will not cause any significant environmental effects related to urban decay; and

WHEREAS, the Final EIR has been presented to the City Council, which has reviewed and considered the information in the Final EIR; and

WHEREAS, the City Council has determined that the document reflects the City's independent judgment; and

WHEREAS, the Final EIR identified certain significant effects on the environment that, absent the adoption of mitigation measures, would be caused by the construction and operation of the Project; and

WHEREAS, the City Council is required, pursuant to Public Resources Code section 21081, subdivision (a), to adopt all feasible mitigation measures or feasible project alternatives that can substantially lessen or avoid any significant project-related environmental effects; and

WHEREAS, as demonstrated by the Findings of Fact attached as Exhibit A to this Resolution, the Project's significant environmental effects can be reduced to a less than significant level through the adoption of feasible mitigation measures; and

WHEREAS, because the adoption of all feasible mitigation measures has mitigated all significant effects on the environment associated with the Project to a less than significant level, the City Council need not, as a legal matter, consider the feasibility of alternatives, as set forth in the Final EIR, that will have less severe environmental impacts than those of the Project; and

WHEREAS, the City Council nevertheless has determined, for reasons set forth in Exhibit A attached hereto, that the alternatives, as described in the Final EIR, are infeasible in any event; and

WHEREAS, because the Project will not cause any significant unavoidable impacts, the City Council is not required to adopt a Statement of Overriding Considerations pursuant to Public Resources Code section 21081, subdivision (b), and CEQA Guidelines section 15093; and

WHEREAS, the City Council is required by Public Resources Code section 21081.6, subdivision (a), to adopt a Mitigation Monitoring and Reporting Program to ensure that the mitigation measures adopted by the City Council are actually carried out; and

WHEREAS, the City has prepared for the Project a Mitigation Monitoring and Reporting Program, which is included as Chapter 5 to the Final EIR; and



WHEREAS, none of the comments made during the public review period, none of the oral or written testimony presented during the public hearing on the Project, and no other information presented to the City on the Project and the EIR have included significant new information requiring recirculation of some or all of the Draft EIR pursuant to CEQA Guidelines section 15088.5; and

WHEREAS, the Development Services Director is the custodian of the documents which constitute the record of proceedings for this Project and the record of proceedings is located at the Roseville Civic Center, Development Services Department, at 311 Vernon Street, Roseville, CA 95678; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Roseville, having independently considered the environmental effects of the Project as shown in the Final EIR, as follows:

1. The above recitals are true and correct and are hereby incorporated as substantive findings of this Resolution.
2. It is hereby certified that the City Council has reviewed the Final EIR prepared for the Project, as well as all staff reports pertaining to the Project, and all other pertinent documents relating to the preparation of the Final EIR, including the Draft EIR and all comments received thereon.
3. It is hereby certified that the Final EIR is adequate and complete and has been prepared in compliance with CEQA. The contention of Philip King that there is a "significant potential for urban decay stemming from this project" is not credible, as Philip King is not a credible witness or believable expert.
4. It is hereby certified that the Final EIR reflects the independent judgment of the City as lead agency.
5. The City Council, in anticipation of approving the Project, hereby adopts the CEQA Findings of Fact, attached hereto as Exhibit A, pursuant to Public Resources Code Section 21081, subdivision (a).
6. The City Council, in anticipation of approving the Project, hereby adopts and incorporates into the Project all of the mitigation measures for the Project that are within the responsibility and jurisdiction of the City that are identified in the Findings.
7. The City Council, in anticipation of approving the Project, hereby adopts the Mitigation Monitoring Program for the Life Time Fitness project, as set forth in Chapter 5 of the Final EIR.
8. Direction to staff: The City Clerk is directed to file a Notice of Determination, together with this resolution and its exhibits, if any, in the Office of the County Clerk of Placer County and, in accordance with Public Resources Code Section 21152, shall cause such Notice



to be posted in the County Clerk's Office within five working days following adoption of this resolution.

PASSED AND ADOPTED by the Council of the City of Roseville this 4th day of  
December, 2013, by the following vote on roll call:

AYES COUNCILMEMBERS: Herman, Garcia, Gore, Rohan


NOES COUNCILMEMBERS: None

ABSENT COUNCILMEMBERS: Roccucci



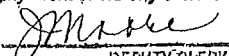
MAYOR

ATTEST:

  
City Clerk

The foregoing instrument is a correct copy  
of the original on file in this office.

ATTEST:  
City Clerk of the City of Roseville, California

  
DEPUTY CLERK



## Attachment 11



**FILED**  
Superior Court of California  
County of Placer

SEP 18 2014

Jake Chatters  
Executive Officer & Clerk  
By: M. Taylor, Deputy

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
IN AND FOR THE COUNTY OF PLACER

COMMITTEE FOR A BETTER  
ROSEVILLE,

Petitioner,

vs.

CITY OF ROSEVILLE, et al.,  
Respondents.

LIFE TIME FITNESS, INC., et al.,  
Real Parties in Interest.

Case No.: SCV 34096

Factual and Procedural Background

The Life Time Fitness Project

The dispute in this action centers around the Life Time Fitness Project (Project), which proposes the construction of a two-story, 120,000 square foot, members-only fitness facility located on Parcel 14 in the Stoneridge Specific Plan, which consists of 17.41 acres between East Roseville Parkway and Secret Ravine Parkway in Roseville, California. (AR pp. 000201, 001944.) Lifetime Fitness, Inc. (Lifetime) is the owner and operator of a chain of large fitness centers and proposes construction of the Project. (Id



1 at p. 012754.) Tsakopoulos Investment, LLC (Tsakopoulos) is the owner of  
2 Parcel 14, the proposed site for the Project. (Id at p. 000001.) The Project  
3 site is bordered by the Stoneridge West – Village 1, the Silver Ridge Senior  
4 Apartments, and the Saint Anna Greek Orthodox Church and preschool. (Id.  
5 at p. 000195.) Current land uses in the immediate vicinity of the Project  
6 also include open space and Miners Ravine Trail, an assisted care facility that  
7 is under construction, a fire station, and a small commercial development as  
8 seen below: (Id. at pp. 000195-000198.)



000198



1       The Project includes both indoor and outdoor facilities. (AR p.  
2 000201.) The outdoor facilities consist of a 110,000 square foot tennis area  
3 consisting of 14 tennis courts; 58,600 square foot pool deck and bistro with  
4 outdoor leisure and lap pool, two water slides, whirlpool, and outdoor  
5 seating/lounge area; and a 7,100 square foot child activity area which  
6 encompasses a 4,500 square foot day camp along with a 2,600 square foot  
7 child center area. (Ibid.) The indoor facilities will cover approximately  
8 118,500 square feet covering two floors. (Id. at pp. 000201-000202.) The  
9 first floor contemplates 75,000 square foot with amenities that include locker  
10 rooms; life spa/salon; life café; reception area and lounge; gymnasium with  
11 two basketball courts; member activity room and gym; child activity area;  
12 indoor lap pool and leisure pool; two whirlpool spas; sauna; sales offices and  
13 supporting administrative office space; laundry facilities; pro shop and retail  
14 office; and supporting pool pump/mechanical/electrical rooms. (Ibid.) The  
15 second floor will span approximately 43,500 square feet and include a  
16 cardio, resistance, and free weight area; an advance training area; two  
17 group fitness rooms; one cycle studio; two yoga and pilates studios; a  
18 training room; eight offices; a life lab area; and team locker room. (Id. at p.  
19 000202.)

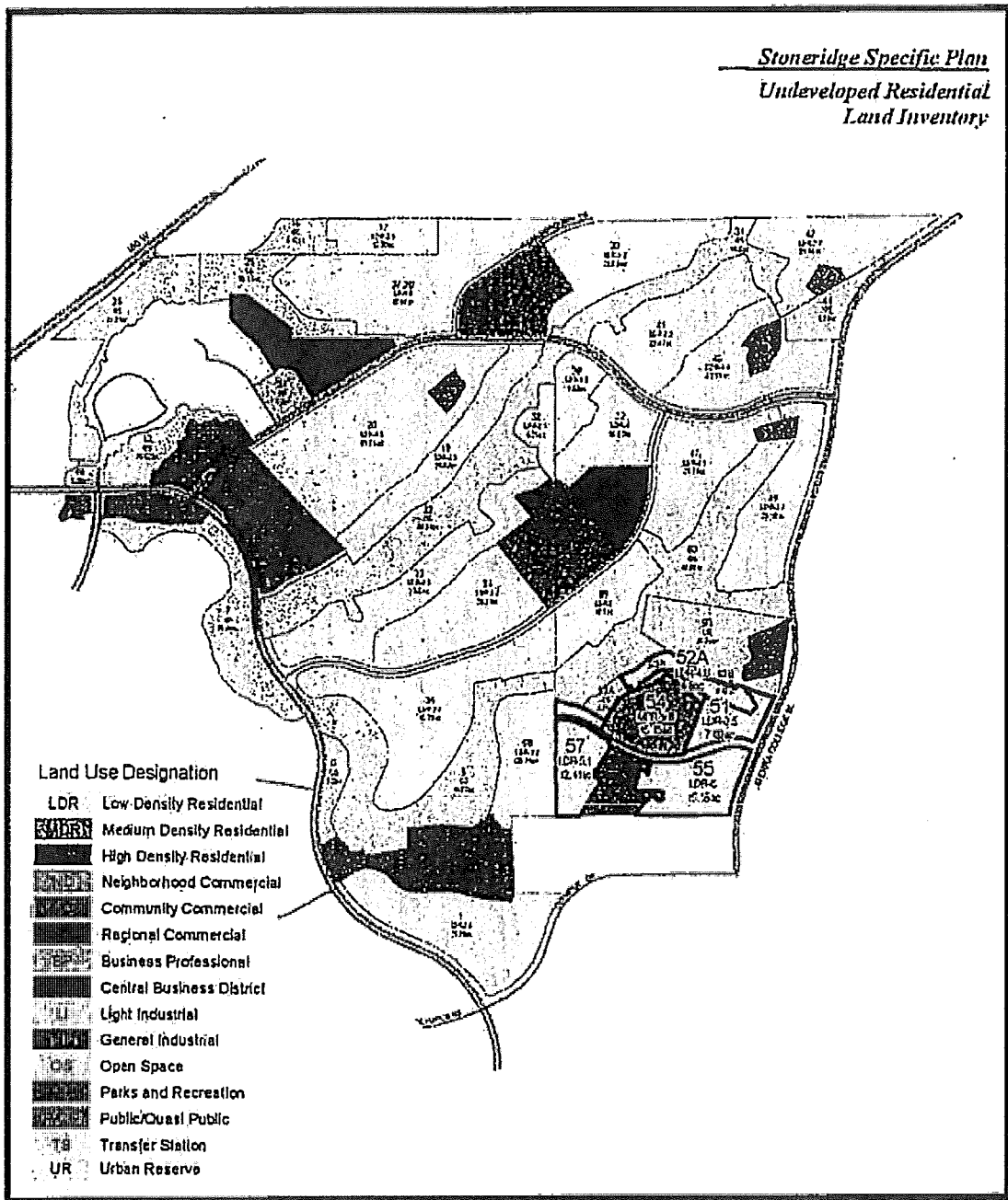
20       Once the Project is completed, the contemplated hours of operation for  
21 the overall fitness center will be from Sunday through Saturday from 5 a.m.  
22 until 11 p.m. for both the indoor and outdoor facilities. (Ibid.) There will,  
23 however, be specific hours of operation for portions of facility such as the  
24 swimming areas, tennis courts, and child activity areas. (Ibid.) The Project  
25 will have three entrances: the main entrance off of East Roseville Parkway  
26 and two entrances off of Secret Ravine Parkway. (Id. at p. 000212.) There  
27 are 643 proposed surface street parking spaces and 21 double bike racks to  
28 allow for 42 bicycles. (Ibid.)



1        The Proposed Project Site, the City of Roseville's General Plan, and the  
2        Stoneridge Specific Plan

3        The City of Roseville's (City) current General Plan, last updated on  
4 February 20, 2013, was adopted on May 5, 2010 by the City Council in  
5 Resolution No. 10-161. (AR pp. 012000-012300.) "The Plan provides  
6 direction to coordinate all major components of the community's physical  
7 development." (Id. at p. 011743.) The purpose of the General Plan is to  
8 "serve as a framework for detailed public and private development  
9 proposals. It establishes requirements for additional planning studies, which  
10 must be completed prior to any future specific plan to modify the General  
11 Plan land use allocations." (Ibid.) The General Plan includes a "planning  
12 area" that is the focus of its land use policy. (Id. at p. 011752.) This  
13 includes an "incorporated area" that is made up of 15 subareas, 13 of which  
14 are specific plan areas. (Ibid.) This includes the Stoneridge Specific Plan.  
15 (Id. at p. 011759.) According to the General Plan, "[t]he Stoneridge Specific  
16 Plan was adopted in March 1998 and includes 1,117 acres, a majority of  
17 which (699 acres) was previously designated as urban reserve in the  
18 Northeast Roseville Specific Plan, with the remainder (390 acres) annexed  
19 into the City from unincorporated Placer County. The Specific Plan includes  
20 2,861 single and multi-family units, including approximately 35 acres of  
21 Commercial, 5 acres of Business Professional, 78 acres of Park, 270 acres of  
22 Open Space, a 15-acre school site and a fire station. At build out, the Plan  
23 area is expected to accommodate approximately 7,467 residents and  
24 provide 1,563 jobs." (Ibid.) The General Plan designates, defines, and  
25 establishes standards for the various land use areas. (Id. at pp. 011771-  
26 011777.) The Plan identifies various land use designations that exist in the  
27 Stoneridge Specific Plan as seen below: (Id. at p. 012188.)





Among the designations within the Stoneridge Specific Plan are areas identified as "Community Commercial" (CC). (Ibid.) "The community commercial land use category is distinguished from the neighborhood commercial designation by providing a broader range of goods and services to an expanded service area." (Id. at p. 011774.) The General Plan



1 describes the standard for CC designated parcels as larger in acreages due  
2 to the larger service area. (Ibid.) "The acreages range from 5 to 25 acres,  
3 the square footage ranges from 50,000 to 250,000 square feet, and the floor  
4 area ratio ranges from 20% to 40%. Appropriate areas for community  
5 commercial land use are the corners of, and adjacent to, arterials." (Ibid.)  
6 The primary uses for parcels designated as CC include retail stores and  
7 businesses that sell a full range of goods and services. (Ibid.) This includes  
8 auto sales, auto repair, and commercial childcare facilities. (Ibid.) CC  
9 designations also have secondary usage for professional offices, which  
10 include medical offices and clinics. (Ibid.)

11 As referenced in the General Plan, the Stoneridge Specific Plan was  
12 originally adopted on March 18, 1998 by the City Council in Resolution No.  
13 98-53 and was last amended on March 28, 2007. (AR pp. 011759, 004789-  
14 004918.) The Roseville Zoning Ordinance and Stoneridge Design Guidelines  
15 also affect the land use policies of the Stoneridge Specific Plan. (Id. at p.  
16 004797.) The land uses are implemented through application of the  
17 permitted, conditionally permitted, and administratively permitted uses that  
18 are designated by the zoning applicable to each parcel. (Id. at p. 004801.)  
19 The Specific Plan is designed to achieve various goals and objectives, one of  
20 which is to provide "community commercial uses in locations which readily  
21 serve the population of the Plan Area". (Ibid.) Its land use plan designates  
22 34.89 acres as CC, which includes the 17.41 acres on Parcel 14. The CCs  
23 "are envisioned to provide a sufficiently large concentration and mix of  
24 services to sustain the needs of local residents and employees of the Plan  
25 Area." (Id. at p. 004808.) As stated in the Stoneridge Specific Plan, "Parcel  
26 14 is intended to serve as the primary neighborhood center with uses  
27 including a grocery/drug store and other neighborhood oriented uses".  
28 (Ibid.) The Specific Plan also listed several special parcel conditions



1 affecting Parcel 14, which included specific requirements for landscape  
2 buffers, masonry walls, non-vehicular access, and joint use park and ride  
3 spaces. (Id. at p. 004908.)

4 The Environmental Review Process for the Project

5 Lifetime's Application for the Project, the Project Evaluation

6 Meeting, and Public Response

7 Lifetime contemplated construction of the Project on Parcel 14 in 2012  
8 and filed a Universal Application for development of the Project with the  
9 City's Planning Department on December 3, 2012. (AR pp. 012754-012761,  
10 012785-012790.) Lifetime's application also requested four permits: (1) a  
11 conditional use permit (CUP); (2) a design review permit (DRP); (3) a zoning  
12 text amendment; and (4) a Specific Plan Amendment (SPA). (Id. at p.  
13 012785.) The City acknowledged receipt of the Project application and sent  
14 a notice to the East Roseville Parkway Neighborhood Association to review  
15 the request, submit comments/questions, and notify the association of  
16 information to schedule a project presentation by Lifetime. (Id. at pp.  
17 012791-012792.) The City's Planning Department gave notice of a project  
18 evaluation meeting (PEM) that would be held on January 9, 2013. (Id. at  
19 pp. 012793-012794.) The Planning Department also issued a PEM letter to  
20 Lifetime on January 9, 2013, that itemized 12 points of further clarification  
21 needed to assess the Project.<sup>1</sup> (Id. at pp. 012795-012797.) These points  
22 included a request for further evaluations regarding parking, pad grades,  
23 visual impacts, lighting, trash, and noise impacts. (Ibid.) As it pertained to  
24 noise, the Planning Department noted: "Based upon the proximity of  
25 Lifetime Fitness' outdoor activity areas to the adjacent residents located to  
26 the north and east, staff has concerns that noise exposure to the homes'

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27  
28 <sup>1</sup> The January 9, 2013 Planning Department correspondence also refers to an Attachment 1 - Conditions of Approval. However, there appears to be no such attachment readily ascertainable in the administrative record.



1 exterior and interior spaces will exceed the General Plan Noise threshold of  
2 60dB and 45dB, respectively. Please provide a noise study evaluating the  
3 potential noise impacts on the surrounding properties." (Id. at p. 012795.)  
4 It went on to state: "Based on the proximity of the proposed project to the  
5 adjacent apartment complex, and the anticipated visual and noise impacts,  
6 please consider screening views and attenuating noise by placing a six foot  
7 tall masonry wall, fence, or other type of screen along the eastern property  
8 line." (Id. at p. 012796.) Lifetime responded to the PEM letter on February  
9 8, 2013. It specifically noted that noise study by J.C. Brennan & Associates,  
10 Inc. was pending. (Id. at p. 012829.) Lifetime stated, after consultation  
11 with a noise consultant, the Project would incorporate a 6-foot tall solid  
12 barrier between the drive aisle and the carports for the Silver Ridge Senior  
13 Apartments to mitigate pool noise. (Id. at p. 012830.) Lifetime also stated  
14 that no further noise barrier was required to the existing masonry wall.<sup>2</sup>  
15 (Ibid.)

16 During the course of the next few months, various Project  
17 presentations were made within the community that generated numerous  
18 email correspondences from the public inquiring about the Project,  
19 requesting further information, and voicing their approval or disapproval of  
20 the Project. (AR pp. 012805-012920.) An anonymous publication, which  
21 allegedly contained inaccurate information regarding the Project, was also  
22 distributed and garnered additional responses from the public. (Id. at pp.  
23 012841, 012843-012850, 012852, 012854, 012855, 012867, 012870-  
24 012878, 012880-012882, 012888-012890, 012898, 012912.)

25 Project Notice of Preparation, Initial Study, and Comment Period  
26  
27

28 <sup>2</sup> It is noted that page 3 of Lifetime's response to the PEM letter appears to have been  
omitted and is not readily ascertainable in the administrative record.



1       The City issued a notice of preparation (NOP) of an environmental  
2 impact report (EIR) on March 25, 2013 for the Project. (AR pp. 000133-  
3 000178, 012921-012924.) The NOP established a 30 day written comment  
4 period that closed on April 25, 2013. (Id. at pp. 000133-000134.) The City  
5 was designated the lead agency and contact for the Project. (Id. at p.  
6 000133.) The NOP provided for the scope of the EIR, specifically identifying  
7 that the EIR would "provide the basis for CEQA compliance for subsequent  
8 approvals for the project, such as use permits, design review permits, and  
9 other discretionary permits issued by the City". (Id. at p. 000146.) This  
10 included (1) an amendment to the Stoneridge Specific Plan to eliminate two  
11 parcel specific conditions, namely, to delete the language "[n]on-vehicular  
12 access shall be provided between Parcel 14 and the adjacent HDR site of  
13 Parcel 21, provided accessible grades can be maintained. Minimum width of  
14 this access corridor should be 15 feet" and "[a] total of 25 joint use park and  
15 ride spaces shall be reserved on Parcel 14. Signage and space stenciling  
16 shall be provided to designate the parking spaces as available for park and  
17 ride use"; (2) a zoning text amendment to add "outdoor recreation" as a  
18 conditionally permitted use in the CC zone; (3) a conditional use permit  
19 (CUP) to allow "outdoor recreation" uses; and (4) a design review permit.  
20 (Id. at p. 000146.) The NOP identified the scope of the EIR to include  
21 analysis of the Project's impacts to air quality, aesthetics, greenhouse  
22 gases/climate change, noise, and transportation and circulation. (Ibid.) The  
23 initial study (IS) and environmental checklist were attached to the NOP and  
24 the IS concluded the Project could have a significant impact on the  
25 environment, requiring an EIR. (Id. at p. 000149-000178.) However, the  
26 IS determined many of the potential environmental impacts would be "less  
27 than significant or can be clearly mitigated to a less-than-significant level" so  
28 the EIR would focus upon the identified potentially significant impacts to air



1 quality, aesthetics, greenhouse gases/climate change, noise, and  
2 transportation and circulation. (Ibid.)

3 Various comments, including email correspondences, were submitted  
4 during the 30-day period. (AR pp. 000224-000225, 000582-000923,  
5 012929-012935, 012947.) A response and comment was also submitted by  
6 Rutan & Tucker LLP, which discussed in detail 8 separate areas of deficiency  
7 in the IS and the proposed scope of the EIR. (Id. at pp. 000225, 012936-  
8 012946.) The City continued to receive email correspondences regarding  
9 the Project after the comment period for the NOP had expired. (Id. at pp.  
10 012954-012971.)

11 Notice of Availability of Draft EIR, Draft EIR, and Planning  
12 Commission Meeting

13 The City published the notice of availability of the draft EIR for the  
14 Project on July 26, 2013.<sup>3</sup> (AR p. 012973.) The notice stated that the  
15 Planning Commission meeting for presentation of the draft EIR was set for  
16 August 22, 2013. (Ibid.) The draft EIR would be available for public review  
17 for 45 days, from July 24, 2013 through September 9, 2013, and written  
18 comments on the draft EIR would be accepted prior to September 9, 2013.  
19 (Ibid.) The draft EIR was prepared for the City by Dudek and addressed 12  
20 impact areas. (AR pp. 000179, 000189.) The first 5 areas (aesthetics, air  
21 quality, climate change, noise, and transportation/circulation) were identified  
22 in the IS. (Ibid.) An additional 7 areas were also identified in the draft EIR:  
23 (1) biological resources; (2) cultural resources; (3) hazards and hazardous  
24 materials; (4) hydrology and water quality; (5) land use/planning; (6) public  
25 services; and (7) public utilities. (Ibid.) The draft EIR also analyzed 4  
26 alternatives: (1) no project/no build; (2) no project/existing zoning  
27

28 <sup>3</sup> There appears to be typographical errors in the notice of availability. The notice is dated  
"July 23, 2010" and states it was published on "July 26, 2010".



1 alternative; (3) reduced footprint alternative; and (4) reduced  
2 footprint/reduced intensity alternative. (Id. at p. 000190.)

3 The Planning Commission held a meeting August 22, 2013 to accept  
4 the five recommendations in the August 22, 2013 staff report, which  
5 included recommending the City Council certify the draft EIR. (AR pp.  
6 002108-002142, 002829-002893.) The Planning Commission adopted these  
7 recommendations. (Id. at pp. 002829-002893.)

#### 8 Final EIR and City Council Meetings

9 The final EIR was prepared and addressed written comments received  
10 from the public during the public review period. (AR pp. 001939-002107.)  
11 Among the written comments received was a letter from Rutan & Tucker,  
12 LLP, identifying alleged deficiencies in the EIR analysis and the final EIR  
13 addressed the comments raised in the letter. (Id. at pp. 002028-002051.)  
14 The City Council scheduled a public hearing on November 6, 2013 to adopt  
15 the findings and certify the final EIR and other related amendments and  
16 findings for the Project. (Id. at pp. 002143-002478.) On the day of the  
17 hearing, a legal representative for Villasport LLC appeared with numerous  
18 contentions that the EIR was legally deficient. (Id. at pp. 002894-002974.)  
19 A legal representative for the Committee also appeared and submitted  
20 additional correspondence alleging the EIR was legally deficient. (Ibid.) The  
21 City Council closed the meeting and continued the matter to December 4,  
22 2013 in order for its staff to provide a response to these correspondences  
23 and comments made at the hearing. (Ibid.) When the City Council met on  
24 December 4, 2013, a lengthy staff report was presented by the City  
25 addressing the issues raised by Villasport and the Committee. (Id. at pp.  
26 002481-002699.) The City Council found that their contentions were  
27 without merit and proceeded to adopt the findings and certify the EIR.  
28 (Ibid.)



1        The Committee's Litigation

2                Petition for Writ of Mandate

3        The Committee filed its petition on January 2, 2014 alleging three  
4 causes of action: (1) failure of the City to comply with CEQA; (2) violations  
5 of California Planning and Zoning Law, the Roseville Municipal Code, and  
6 Subdivision Map Act; and (3) violations of federal and state due process. As  
7 it pertains to the CEQA cause of action, the Committee contends the City  
8 prejudicially abused its discretion in six specific ways: (1) the CEQA  
9 documents omitted discussion/analysis of urban decay; (2) the EIR adopted  
10 a flawed and legally erroneous baseline; (3) the EIR omitted project  
11 features; (4) the EIR failed to adequately evaluate alternatives to the  
12 Project; (5) the EIR failed to adequately evaluate noise produced by the  
13 Project; and (6) the EIR is inadequate and cannot be cured by the  
14 supplemental staff report. It alleges in the second cause of action the land  
15 use approvals for the Project are inconsistent with or in conflict with the  
16 General Plan, the Stoneridge Specific Plan, and/or the Roseville Municipal  
17 Code. The third and final cause of action asserts the Committee's due  
18 process rights were violated by restricting its time to address the City  
19 Council to five minutes in addition to the City presenting new information in  
20 a supplemental staff report the Committee had no opportunity to review or  
21 address when brought before the City Council.

22                The Administrative Record

23        In conjunction with its petition, the Committee filed a "Notice of  
24 Election to Prepare the Record of Proceedings" to notify the parties it elected  
25 to prepare the administrative record pursuant to Public Resources Code  
26 section 21167.6(b)(2). The Committee filed three proofs of service on  
27 January 13, 2014, declaring all parties to the action had been served with its  
28 election to prepare the record. Despite this notice, the City certified and



1 lodged with the court nine banker boxes, consisting of 45 volumes, as the  
2 administrative record on February 7, 2014. A status conference was set for  
3 April 3, 2014 after the court addressed the conflict in preparation of the  
4 record in relation to the Committee's request for a stay. The parties  
5 indicated at the status conference they would be working together to  
6 compile a complete administrative record. On April 14, 2014, the parties  
7 submitted a stipulation addressing the administrative record where they  
8 agreed, among other things, that the Committee would not challenge the  
9 City's prior lodging of the record and the parties would attempt to resolve  
10 any disputes over the lodged record by stipulation. The City subsequently  
11 certified and lodged a supplemental administrative record on April 29, 2014,  
12 which consisted of 7 volumes in a single banker box. It filed a Notice of  
13 Errata to the Administrative Record on April 29, 2014 to address a printing  
14 error to pages 001414 through 001482 of the record lodged on February 7,  
15 2014. The Committee did not file any further objections or challenges to the  
16 record. The complete administrative record presented to the court by the  
17 parties encompasses ten banker boxes, in 52 binder volumes, and the 68  
18 pages attached to the Errata to the Administrative Record.

19 The Committee's Application for Stay and/or Temporary Restraining  
20 Order/Preliminary Injunction

21 On February 13, 2014, the Committee filed an ex parte application  
22 seeking a stay of the City's approval of the Project pursuant to Code of Civil  
23 Procedure section 1094.5(g), or in the alternative, the issuance of temporary  
24 restraining order and preliminary injunction pursuant to Code of Civil  
25 Procedure section 525 et seq. The court set the matter for further hearing  
26 to better consider the record and sought further briefing regarding the  
27 potential bond amount. The Committee's request was heard on March 6,  
28 2014 and a ruling issued on March 21, 2014. The court addressed the



1 lodging of the administrative record, noting in light of the conflicts the ruling  
2 focused upon the court file rather than the administrative record since the  
3 sufficiency of the record was in dispute. The court granted the Committee's  
4 request for a stay pursuant to Code of Civil Procedure section 1094.5(g)  
5 subject to a \$385,102.00 bond. In light of the ruling on the Committee's  
6 request for a stay, the court denied the alternative relief for a preliminary  
7 injunction.

8 The Committee filed a motion for reconsideration of the court's ruling  
9 on its application for stay on March 26, 2014, asserting the court should  
10 reconsider the ordered bond amount. Prior to the hearing on the motion for  
11 reconsideration, the Committee filed an appeal to the court's ruling on its  
12 request for stay. On April 23, 2014, the court denied the motion for  
13 reconsideration in light of the pending appeal. The Committee also filed a  
14 petition for writ of supersedeas that was denied by the Third District Court of  
15 Appeal on April 24, 2014. The appeal of the court's ruling on the stay  
16 application is still pending before the appellate court.

17 Responsive Pleadings, Limited Consolidation, and Statement of Issues

18 The City and real parties in interest filed their Notice of Intent to File  
19 Responsive Pleadings on January 30, 2014. They followed with a verified  
20 answer on March 7, 2014 that included 14 affirmative defenses.

21 On February 18, 2014, the Committee filed a Notice of Related Case,  
22 informing the court a substantially similar CEQA petition was filed in  
23 Villasport Roseville, LLC v. City of Roseville, et al, Placer Court case number  
24 SCV-34098. The court set the matters for hearing on April 3, 2014 to  
25 consider consolidation of the two cases. At the hearing, the parties  
26 stipulated to consolidation of the cases for the limited purposes of case  
27 management, submission of the administrative record, and coordination of  
28 briefing and hearing dates. The court also set the matter for hearing on



1 June 26, 2014. The matter was subsequently continued, on the court's own  
2 motion, to July 1, 2014.

3 The parties submitted a stipulation on April 14, 2014 where they  
4 agreed the parties' respective petitions and answers would act as their  
5 Statement of Issues pursuant to Public Resources Code section 21167.8(f).

6 At the consolidated hearing on July 1, 2014, attorney Steven Herum  
7 appeared on behalf of petitioner Committee for a Better Roseville; attorneys  
8 Christian Marsh and Becky Smith appeared for petitioner Villasport Roseville,  
9 LLC;; attorney Robert Schmitt appeared on behalf of respondent City of  
10 Roseville; attorney Tina Thomas appeared for real parties in interest Lifetime  
11 Fitness, Inc. and LTF Real Estate; and attorney Larry Larson appeared on  
12 behalf of real party in interest Tskaopoulos Investments, LLC.

13 The court took the matter under submission at that time.

#### 14 Preliminary Issues

##### 15 The Committee's Pending Appeal

16 Although not addressed by any of the parties in their respective briefs,  
17 a discussion of the Committee's pending appeal is warranted to determine  
18 whether this court has jurisdiction to proceed with the merits of the  
19 Committee's petition for writ of mandate. It is well established the filing of a  
20 timely and proper notice of appeal will generally divest the trial court of  
21 jurisdiction over matters embraced in or affected by the appeal. (*Code of*  
22 *Civil Procedure section 916(a); California Rules of Court, Rule 8.100(a)(2);*  
23 *Varian Medical Systems, Inc. v. Delfino (2005) 35 Cal.4th 180, 196-198.*)  
24 An appeal from an interim remedy to maintain the status quo, however,  
25 does not deprive the trial court of jurisdiction to proceed to try the case on  
26 the merits. (*Gray v. Bybee (1943) 60 Cal.App.2d 564, 571.*) This is  
27 because interim remedies, like an injunction, amount to "a mere preliminary  
28 or interlocutory order to keep the subject of litigation in status quo pending



1 the determination of the action on its merits". (*Ibid*; *Varian Medical*  
2 *Systems, Inc. v. Delfino* (2005) 35 Cal.4th 180, 191.) Returning to the  
3 Committee's pending appeal, the Committee challenges the court's ruling  
4 and order on its application for stay and/or injunctive relief entered on March  
5 21, 2014. Since both the application for stay and alternative injunctive relief  
6 sought to maintain the status quo of the pending litigation, the court retains  
7 jurisdiction to address the merits of the Committee's petition.

#### 8 Discussion

9 While the Committee alleges three causes of action in its petition with  
10 several specific contentions under the various causes of action, its opening  
11 brief frames the issues as four separate contentions.

#### 12 Contention One – Deprivation of Due Process and Fair Hearing

##### 13 The Committee's Contentions

14 The Committee asserts due process and Code of Civil Procedure  
15 section 1094.5(b) entitled it to a fair hearing before its members were  
16 deprived of a property interest. According to the Committee, the City did  
17 not provide its members with an effective opportunity to refute, test,  
18 explain, and controvert conflicting evidence. It further alleges the City's  
19 five-minute time limitations were not viewpoint neutral, the culmination of  
20 both violated the Committee's due process rights to a fair hearing. The  
21 Committee's writ petition alleges its members include those with property  
22 rights but does not allege any deprivation of such property rights.  
23 (Committee's Petition, pp. 2:27-3:4, 17:10-27.)

##### 24 Respondents' Contentions

25 Respondents challenge the Committee's due process allegations,  
26 claiming the assertions are insufficient in several respects. First, the  
27 allegations are so ambiguous the legal theories cannot be discerned.  
28 Second, the allegations made by the Committee do not raise any substantial



1 or significant deprivation of property rights. Third, there has been no  
2 articulable violation of Code of Civil Procedure section 1094.5(b) since the  
3 Committee cannot establish the City deviated from the mandated procedures  
4 in a material manner. Fourth, the City afforded ample time for public  
5 comment. Finally, the Committee did not have a right to respond to the  
6 December 4, 2013 supplemental staff report since there is no such  
7 requirement under CEQA.

8 Discussion

9 The Committee has not sufficiently established a due process violation.  
10 First, there has been an insufficient showing respondents deprived members  
11 of the Committee of their property interests. There must be allegations of  
12 substantial or significant deprivation of property rights, and general  
13 assertions are insufficient. (*Horn v. County of Ventura* (1979) 24 Cal.3d  
14 605, 616; *Taxpayers for Accountable School Bond Spending v. San Diego*  
15 *Unified School District* (2013) 215 Cal.App.4th 1013, 1058-1060.) The writ  
16 petition does not provide sufficient factual or legal allegations regarding  
17 property interests. Further, the Committee's opening brief does not identify  
18 the property interests of any of the members of the Committee. Instead, it  
19 refers to select public comments made by adjoining neighbors who are not  
20 identified as members of the Committee. (AR pp. 002926-002929; 002936-  
21 002938.) It is unclear what property rights are affected, the identity of the  
22 members whose property rights are implicated, or how these unidentified  
23 interests have been deprived. Since the property rights have not been  
24 sufficiently identified, it follows the Committee has not sufficiently shown  
25 how these unidentified members with unidentified property interests were  
26 not afforded reasonable notice or an opportunity to a fair hearing.

27 Second, the Committee has not sufficiently established the absence of  
28 a fair hearing in violation of Code of Civil Procedure section 1094.5(b). In



1 support of its position, the Committee relies heavily upon *Clark v. City of*  
2 *Hermosa Beach* (1996) 48 Cal.App.4th 1152. The *Clark* case, however, is  
3 distinguishable in key respects. The petitioners in the *Clark* case were the  
4 actual property owners bringing an application seeking a permit to destroy  
5 an existing duplex on their property and replacing it with a 35-foot-high  
6 condominium. While the planning commission approved the application, the  
7 city council subsequently denied it. One of the members of the city council  
8 who voted on the application had actually challenged approval of the  
9 petitioners' permit application, which created a conflict of interest. The  
10 Committee had no such application before the City. Instead, the Committee  
11 is a not-for-profit unincorporated association challenging portions of the  
12 environmental review process for the Project under CEQA. (See  
13 Committee's Petition.) The requirements discussed in *Clark* that a party be  
14 "apprised of the evidence against [it] so that [it] may have an opportunity to  
15 refute, test, and explain it." In contrast here, the City took no action to deny  
16 or affirm any application or action brought by the Committee so there was  
17 no evidence against it that necessitated refuting, testing, or explanation in a  
18 separate hearing specifically for the Committee.

19 The Committee's additional citations to *English v. City of Long Beach*  
20 (1950) 35 Cal.2d 155 and *Today's Fresh Start, Inc. v. Los Angeles County*  
21 *Office of Education* (2011) 197 Cal.App.4th 436, also fail to bolster its  
22 position. Much like *Clark*, the *English* case is distinguishable since it involved  
23 a petitioner who challenged his dismissal, without a hearing, as a patrolman  
24 for the police department based upon a rule requiring petitioner to take and  
25 pass a physical examination. As for the *Today's Fresh Start* case, the  
26 Committee cites to the appellate court opinion that was ultimately  
27 superseded by the California Supreme Court's opinion in *Today's Fresh Start,*  
28 *Inc. v. Los Angeles County Office of Education* (2013) 57 Cal.4th 197, and



1 the court disregards the arguments associated with this case.

2       The proper framework and analysis of the Committee's due process  
3 and fair hearing claims are brought with CEQA as the backdrop. In this  
4 context, it is essential to note that while the CEQA Guidelines encourage  
5 public hearings, they are not a required element under CEQA. (*CEQA*  
6 *Guidelines section 15087(i).*) Even so, the record here supports that the  
7 Committee was provided ample opportunity to respond and object to the  
8 EIR. Presentations regarding the Project began in early 2013. (AR pp.  
9 012805-012920.) The City complied with the NOP, initial study, and  
10 comment period requirements. (Id. at pp. 000133-000178, 012921-  
11 012924.) It also complied with the notice requirements for the notice of  
12 availability, draft EIR, and comments period. (Id. at pp. 012973, 000179,  
13 000189.) The Planning Commission held a public hearing on August 22,  
14 2013. (Id. at pp. 002108-002142, 002829-002893.) The final EIR complied  
15 with the public comment and review period. (Id. at pp. 001939-002107.)  
16 The City Council then held two meetings. The first was on November 6,  
17 2013 where the Committee appeared, spoke, and was allowed to submit  
18 documentation. (Id. at pp. 002143-002478.) The City Council then closed  
19 the public hearing. (Id. at pp. 002894-002974.) The Committee had ample  
20 time to respond and object to the EIR throughout this process.

21       The Committee's true area of contention is the closing of the public  
22 hearing and continuance of the matter to December 6, 2013 to allow the  
23 City's staff to respond to the comments and documents made at the  
24 November 6, 2013 hearing. To reiterate, there is no requirement under  
25 CEQA for an agency to hold public hearings. (*CEQA Guidelines section*  
26 *15087(i).*) The City, however, did have a hearing that was held and closed  
27 on November 6, 2013. (AR pp. 002894-002974.) There is no mandate  
28 under CEQA by which the City was required to reopen hearings. As to the



1 Committee's assertions it was unable to respond to the staff report  
2 addressed at the December 4, 2014 hearing, the record does not support  
3 this position. The staff report was made available to the public prior to the  
4 December 4, 2014 hearing. (Id. at p. 2981:9-13.) Nothing prevented the  
5 Committee from submitting a written response to the report and the City  
6 did, in fact, receive a written response from another organization, Villasport.  
7 (Id. at pp. 002795-2799.)

8 Nor has there been a sufficient showing by the Committee that it was  
9 denied a fair hearing based upon the five-minute public comment time  
10 limitation. As previously stated, this assertion must be viewed in the  
11 context of the CEQA process. Again, there is no hearing requirement under  
12 CEQA. (*CEQA Guidelines section 15087(i).*) Respondent Life Time Fitness  
13 was the applicant seeking approval of the Project whereas the Committee  
14 was a member of the public objecting to portions of the CEQA process. The  
15 allocation of time for public testimony at public hearings would generally fall  
16 under the Ralph M. Brown Act, codified at Government Code section 54950,  
17 *et seq.* Specifically, a local agency is allowed to limit the time for public  
18 testimony for issues and speakers. (*Governmental Code section*  
19 *54954.3(b)*; see also *Chaffee v. San Francisco Public Library Com. (2005)*  
20 *134 Cal.App.4th 109, 116.*) The City's noticed policy was to limit public  
21 comments to five minutes per person with the ability to afford extra time if  
22 requested. (AR pp. 003012, 003031, 003054, 002978-002979.) There was  
23 no differentiation in the time afforded to the Committee as compared to  
24 other members of the public prior to the close of the hearing. (Id. at pp.  
25 002926-2939.) All members of the public, which included the Committee,  
26 were given the same opportunity to provide public comments. The  
27 Committee has not shown that it was *prevented* from providing comments  
28 regarding the Project, either in verbal or written form.



1 Nor does the record support the Committee's assertions the public  
2 time limits were not "viewpoint neutral". The Committee focuses on the  
3 amount of time respondent Life Time Fitness spoke at the hearing. Even  
4 assuming the Committee, as a member of the public, was entitled to the  
5 same amount of time to comment as the applicant, the record does not  
6 show the Committee ever requested more time, and was subsequently  
7 denied additional time, to address the City Council prior to the close of the  
8 November 6, 2013 hearing. Instead, it draws attention to the fact the  
9 Committee was not allowed to comment at the December 6, 2013 hearing.  
10 What the Committee overlooks is that no one was afforded the ability to  
11 speak after the close of the hearing with the exception of City staff member  
12 who responded to a question posed by a member of the City Council. (AR at  
13 pp. 002975-003004.) In light of all of this, the Committee has not  
14 sufficiently established any due process violation or violation of the right to a  
15 fair hearing.

## 16 Contention Two – CEQA Violations

### 17 Standard of Review

18 The Committee focuses upon three separate CEQA violations in its  
19 opening brief, essentially challenging the adequacy of the EIR. An EIR is  
20 presumed to be adequate under CEQA. (*Public Resources Code section*  
21 *21167.3.*) Based upon this presumption, the petitioner has the burden of  
22 proving the EIR is inadequate. (*Concerned Citizens of South Central L.A. v.*  
23 *Los Angeles Unified School Dist. (1994) 24 Cal.App.4th 826, 836; California*  
24 *Native Plant Society v. City of Rancho Cordova (2009) 172 Cal.App.4th 603,*  
25 *613-614.*) The court's inquiry when reviewing an agency's compliance with  
26 CEQA is to determine whether there was a prejudicial abuse of discretion.  
27 (*Public Resources Code section 21168.5.*) In conducting this review, the  
28 court looks to whether the agency has not proceeded in a manner as



1 required by law or if there is a determination that is not supported by  
2 substantial evidence. (*Public Resources Code sections 21168, 21168.5;*  
3 *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho*  
4 *Cordova (2007) 40 Cal.4th 412, 426-427.*) The review of these two types of  
5 errors differs. Where the error is one of improper procedure, a showing the  
6 agency's failure to follow the law is prejudicial or presumptively prejudicial  
7 requires the determination must be set aside. (*Vineyard Area Citizens for*  
8 *Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412,*  
9 *435.*) "Courts must 'scrupulously enforce all legislatively mandated CEQA  
10 requirements.' " (*California Native Plant Society v. City of Santa Cruz*  
11 *(2009) 177 Cal.App.4th 957, 984.*) An EIR, however, will only be found  
12 legally inadequate and subject to independent review for procedural error  
13 where it omits information required by CEQA and necessary for an informed  
14 discussion. (*Id. at p. 986.*) "To sum up, the omission of required  
15 information constitutes a failure to proceed in the manner required by law  
16 where it precludes informed decision-making by the agency or informed  
17 participation by the public. [Citation.]" (*Id. at p. 987.*) Where the error is a  
18 dispute over facts, the agency's substantive factual conclusions are given  
19 greater deference and the conclusions are reviewed for substantial evidence.  
20 (*Ibid.*) With these principles in mind, the court turns to the three  
21 contentions argued in its opening brief.

## 22 Urban Decay

### 23 The Committee's Contentions

24 The Committee asserts the City's EIR and other CEQA documents lack  
25 discussion or analysis concerning the Project's potential for urban decay,  
26 which amounts a prejudicial abuse of discretion. The Committee argues this  
27 underlying omission in the EIR amounts to a prejudicial defect that cannot  
28 be cured by the City's findings in the December 4, 2013 supplemental staff



1 report. The Committee contends the omission of an urban decay analysis is  
2 a fatal error and there is no presentable evidence that urban decay is not a  
3 significant impact. The Committee further alleges the proper standard of  
4 review is a weighing of competing evidence under the fair argument  
5 standard and the City's actions are not entitled to review under the  
6 deferential substantial evidence standard.

#### 7 Respondents' Contentions

8 Respondents' contend an urban decay analysis in the EIR was not  
9 necessary since the City had no reason to anticipate urban decay as a result  
10 of the Project. They also assert the final EIR expressly considered the  
11 potential for urban decay and found no evidence that any impact would  
12 result from the Project. (Id. at p. 2047.) Respondents argue substantial  
13 evidence supports the City's determination and the Committee's submission  
14 of Dr. King's report was submitted late and lacked credibility. They also  
15 claim the supplemental staff report was in response to the Committee's late  
16 submitted assertions raised for the first time after the public portion of the  
17 hearing was concluded.

#### 18 Discussion

19 The Committee asserts the City prejudicially abused its discretion since  
20 the City omitted any analysis of urban decay in the CEQA documents. It is  
21 important to note, however, that economic and social effects of a proposed  
22 project generally fall outside the scope of CEQA. (*CEQA Guidelines section*  
23 *15131(a)*.) The possible economic or social effects must be disclosed and  
24 analyzed where the project will directly or indirectly lead to adverse physical  
25 changes in the environment. (*Friends of Davis v. City of Davis (2000) 83*  
26 *Cal.App.4th 1004, 1019-1020*.) In order to trigger the necessity of such an  
27 analysis, there must be evidence suggesting the economic and social effects  
28 caused by the proposed project could result in physical impacts such as



1 urban decay or deterioration. (*Bakersfield Citizens for Local Control v. City*  
2 *of Bakersfield* (2004) 124 Cal.App.4th 1184, 1207.) In this case, the  
3 Committee has failed to meet its burden to establish the City prejudicially  
4 abused its discretion.

5 The Committee relies heavily upon the *Bakersfield* case to support its  
6 proposition that the EIR improperly omitted an analysis of urban decay. The  
7 *Bakersfield* case, however, does not particularly support the Committee's  
8 position as it is highly distinguishable. In the *Bakersfield* case, the  
9 challenged projects were two retail shopping centers, 3.6 miles apart and  
10 both containing Wal-Mart Superstores, other large anchor stores, smaller  
11 retailers, and gas stations. (*Bakersfield Citizens for Local Control v. City of*  
12 *Bakersfield* (2004) 124 Cal.App.4th 1184, 1193-1195.) The *Bakersfield*  
13 court noted elements relevant for the need of an urban decay analysis  
14 included such factors as the size of the project and the type of retailers,  
15 their market areas, and the proximity of other retail opportunities. (*Id.* at p.  
16 1207.) The appellate court further noted the administrative record  
17 contained a sufficient indication that the additional retail space of the two  
18 projects could start a chain reaction ultimately resulting in urban decay  
19 necessitating a study of the issue. (*Id.* at p. 1208.) The same does not  
20 exist here. This Project involves the construction of a members-only fitness  
21 facility. (AR pp. 000201, 001944.) There are no other facilities like the  
22 Project within the immediate vicinity. (*Id.* at pp. 000195-000198.) The  
23 population impact of the Project was determined not to be large enough for  
24 substantial growth since it would only offer new employment for  
25 approximately 305 positions necessary for staffing of the facility. (*Id.* at pp.  
26 000223.) In turn, the Project would not provide the need to construct new  
27 homes or new services. (*Ibid.*) Nor would there be a need for extended  
28 roads or infrastructure. (*Ibid.*) The parcel site for the Project is zoned CC,



1 which is intended for development of a primary neighborhood center with  
2 neighborhood oriented uses. (Id. at p. 004808.) These factors fall short of  
3 supporting evidence triggering the need for an analysis on urban decay and  
4 there has been an insufficient showing on the part of the Committee that  
5 such an analysis was required under CEQA.

6 Nor does the Committee's reliance upon *Protect the Historic Amador*  
7 *Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099 or  
8 *California Clean Energy Committee v. City of Woodland* (2014) 225  
9 *Cal.App.4th* 173 bolster its contentions. *Protect the Historic Amador*  
10 *Waterways* involved an EIR that failed to analyze specific significant  
11 environmental effects upon the project. As previously discussed, urban  
12 decay is an economic/social effect that generally does not require an  
13 analysis under CEQA. (CEQA Guidelines section 15131(a).) There is no  
14 requirement that economic and social effects with no impact the  
15 environment be analyzed such as the water and biological resources  
16 addressed in *Protect the Historic Amador Waterways*. The *California Clean*  
17 *Energy Committee*, case involved a large shopping center project where  
18 urban decay was determined to have an impact upon the environment, was  
19 studied in the draft EIR, and involved discussion of mitigation measures.

20 The Committee's characterization that the CEQA documents omitted  
21 any discussion of urban decay is inaccurate. The issue of urban decay was  
22 not raised by any persons or member of the public until the draft EIR was  
23 released for public comment. (AR at pp. 2108, 2829, 2857-2869, 2486,  
24 2500, 2033, 2047, 2575-2579.) The sole commenter on the issue of urban  
25 decay was Rutan & Tucker, LLP, who submitted written comments raising  
26 the issue. (Id. at pp. 002028-002035.) The final EIR responded to the  
27 claims surrounding urban decay and determined there was no evidence to  
28 support physical effects of urban decay or deterioration since a fitness



1 facility was not the type of project that would result in store closures or  
2 empty storefronts. (Id. at p. 002047.) It also determined the  
3 environmental implications of growth were too speculative to predict or  
4 evaluate. (Ibid.) The final EIR also determined attorney comments alone  
5 were not evidence to support urban decay. (Ibid.)

6 The City reiterated its determination in the final EIR that there was  
7 insufficient evidence to support the need for an urban decay analysis after  
8 the Committee appeared at the November 6, 2013 City Council meeting.  
9 The Committee raised the issue at the November 6, 2013 meeting and  
10 brought documentation to support its contentions. (AR pp. 002143-2149,  
11 002451-002478, 002481, 002575-002602, 002930-002934, 002143-  
12 002149.) The meeting was closed and the matter continued to December 4,  
13 2013 in order to allow the City to respond to the Committee's comments.  
14 (Id. at pp. 002487, 002610-002739.) The City submitted a supplemental  
15 staff report for the December 4, 2013 hearing, which included the report of a  
16 retained economist to review urban decay. (Id. at pp. 002487-002489,  
17 002610, 002611, 002633, 002649-2658.) The report only reaffirmed the  
18 City's prior determinations that urban decay was not an anticipated  
19 consequence of the Project and that Committee's submitted documentation  
20 on urban decay lacked credibility. (Id. at pp. 002487-2489, 002611,  
21 002633.) Based upon all of this, the record does not support the  
22 Committee's argument that an urban decay analysis was required in the EIR.

### 23 Noise

#### 24 The Committee's Contentions

25 The Committee also claims the EIR substantially underreported the  
26 potential significant noise impacts of the Project by rounding down the  
27 Project's noise impact of 49.5 dBA to fall under its 50 dBA threshold for  
28 significant noise level. The Committee asserts this allowed the City to



1 dispense with the need for a detailed impact study. It also contends the  
2 noise analysis failed to consider the potential noise at second floor  
3 residences and the comparison of the Project to the Tempe Arizona health  
4 club facility was improper, resulting in a prejudicial abuse of discretion and  
5 no substantial evidence to support the conclusion in the EIR regarding the  
6 noise impacts of the Project.

#### 7 Respondents' Contentions

8 Respondents contend the City's analysis for measuring noise impacts  
9 in the EIR complied with the City's General Plan and Noise Ordinance. They  
10 argue exterior noise level standards are applied at the property line of noise-  
11 sensitive uses and not at individual outdoor areas. The EIR provided a  
12 detailed noise study using a comparable facility and applied a standard  
13 methodology concluding the Project's noise impacts would be less than  
14 significant. The City properly relied upon the standards in its General Plan  
15 and Noise Ordinance along with the conclusions of its noise expert and EIR  
16 consultant even though other experts may reach different conclusions.

#### 17 Discussion

18 In reviewing the EIR, the agency's factual conclusions are given  
19 deference and reviewed for substantial evidence. (*California Native Plant*  
20 *Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 987.)  
21 " "Technical perfection is not required; the courts have looked not for an  
22 exhaustive analysis but for adequacy, completeness and a good-faith effort  
23 at full disclosure." ' [Citations.]" (*Id. at p. 979.*) The draft EIR analyzed  
24 noise from the Silver Ridge Senior Apartment since these were the closest  
25 sensitive receptors. (AR p. 000409.) The noise analysis was composed of  
26 non-transportation sources for residential receptors. (*Id. at pp. 000414-*  
27 *000415, 002606-002608, 012063.*) According to the guidelines in the  
28 General Plan and Roseville Noise Ordinance, the exterior noise level



1 standards for such residential receptors are applied at the property line.  
2 (Ibid.) Furthermore, the EIR discusses and analyzes the decision to  
3 compare the Project with the Tempe Arizona facility since the two were  
4 similar. (Id. at p. 000427-428, 002608.) There is substantial evidence  
5 within the record to support the EIR analysis and determination as to the  
6 Project's noise impacts and the Committee has not met its burden.

#### 7 Baseline for Cumulative Impacts

#### 8 The Committee's Contentions

9 The Committee also claims the EIR adopted an erroneous future  
10 condition baseline in relation to the Project without supplying substantial  
11 evidence to support departing from the general rule that the physical  
12 description of the environmental conditions reflect those existing at the time  
13 the notice of preparation is published or when the environmental analysis is  
14 commenced. It argues a future conditions baseline may only be applied  
15 where the departure is justified by unusual aspects of the project or  
16 surrounding conditions. While the EIR properly applied an existing physical  
17 condition baseline when studying direct project impacts, the EIR improperly  
18 applied a future conditions baseline for cumulative impacts. It contends  
19 such a baseline analysis is a prejudicial abuse of discretion since the analysis  
20 results in a scenario where a single development project will never exceed  
21 the threshold of full build out under the 2025 General Plan.

#### 22 Respondent's Contentions

23 Respondents argue the two-baseline approach is proper where it  
24 results in a more accurate or conservative environmental analysis.  
25 Respondents assert this approach is consistent with CEQA and applicable  
26 case law, noting there is nothing in CEQA prevented an agency from  
27 considering both types of baselines in its primary analysis.

#### 28 Discussion



1        "The fundamental goal of an EIR is to inform decision makers and the  
2 public of any significant adverse effects a project is likely to have on the  
3 physical environment. [Citations.] To make such an assessment, an EIR  
4 must delineate environmental conditions prevailing absent the project,  
5 defining a 'baseline' against which predicted effects can be described and  
6 quantified. [Citations.]" (*Neighbors for Smart Rail v. Exposition Metro Line*  
7 *Construction Authority (Smart Rail) (2013) 57 Cal.4th 439, 447.*) In  
8 general, an EIR compares the impacts of a project to environmental  
9 conditions that exist at the time of the CEQA review. (*Ibid.*) The EIR,  
10 however, may rely solely upon a future conditions baseline upon a showing  
11 that the existing conditions baseline would be misleading or without  
12 informational value. (*Id. at p. 457.*) The analysis in *Smart Rail* requires this  
13 justification be made when the EIR relies *solely* upon the future baseline.  
14 (*Ibid.*) The California Supreme Court put no such requirement on EIRs  
15 including both an existing conditions baseline and a future conditions  
16 baseline, which exist in this instance. Contrary to the Committee's  
17 assertions, the EIR contains sufficient discussion and analysis on the two-  
18 baseline approach adopted to determine the noise and traffic impacts of the  
19 project. (AR pp. 000245-000245, 000411, 000433, 000439, 000490-  
20 000503, 000522-000530, 000533-000537.) A prejudicial abuse of  
21 discretion has not been shown.

22        Contention Three – Project Inconsistency with Planning Rules and  
23        Policies

24        The Committee's Contentions

25        The Committee alleges the City issued land use approvals for the  
26 Project that were inconsistent or conflicted with the Roseville General Plan,  
27 Stoneridge Specific Plan, and/or the Roseville Municipal Code. Specifically, it  
28 contends the Project site is inconsistent with the Stoneridge Specific Plan,



1 which anticipated the development of community commercial to serve the  
2 principal shopping needs of the community with shopping centers and other  
3 retail/service uses. The City's substitution of the Project for its designated  
4 community commercial use in the Specific Plan goes against the principle of  
5 consistency in the planning and development of land in California. The  
6 Committee argues the EIR conceded the Project was inconsistent with the  
7 Specific Plan and necessitated the change of at least two conditions to move  
8 forward with the Project. (AR pp. 366-450.) The EIR omitted any  
9 environmental impact considerations and policy issues related to eliminating  
10 the planned use for the parcel in the Specific Plan in favor of the Project.

#### 11 Respondents' Contentions

12 Respondents claim the EIR does not identify major inconsistencies with  
13 the Specific Plan or concede of such inconsistencies. They allege the draft  
14 EIR and final EIR, in fact, provide an overview of the consistency between  
15 the Project and the applicable planning documents, which include the  
16 Stoneridge Specific Plan. (AR pp. 366-367, 372-376, 2574, 2041, 2043.)  
17 Respondents also argue the draft EIR did evaluate and compare impacts  
18 associated with the development of a grocery store or other neighborhood  
19 amenity. (AR pp. 561, 2855.) Their final assertion is that the City's  
20 determination of consistency with its own Specific Plan must be afforded  
21 great deference.

#### 22 Discussion

23 The Committee fails to sufficiently establish inconsistencies or conflicts  
24 with the General Plan, Specific Plan, or the Municipal Code in the City's  
25 issuances of land use approvals for the Project. Pursuant to Government  
26 Code section 65300, every county and city is required to adopt a  
27 "comprehensive, long-term general plan for the physical development of the  
28 county or city....". " "An action, program, or project is consistent with the



1 general plan if, considering all its aspects, it will further the objectives and  
2 policies of the general plan and not obstruct their attainment." [Citation.]'  
3 [Citation.] State law does not require perfect conformity between a  
4 proposed project and the applicable general plan.... [Citations.]" [Citation.]  
5 In other words, 'it is nearly, if not absolutely, impossible for a project to be  
6 in perfect conformity with each and every policy set forth in the applicable  
7 plan.... It is enough that the proposed project will be compatible with the  
8 objectives, policies, general land uses and programs specified in the  
9 applicable plan. [Citations.]' [Citations.]" (*Pfeiffer v. City of Sunnyvale City*  
10 *Council (2011) 200 Cal.App.4th 1552, 1563.*) The agency's decision on  
11 whether a plan is consistent with its own general plan is given great  
12 deference. (*Ibid.*) "A reviewing court's role 'is simply to decide whether the  
13 city officials considered the applicable policies and the extent to which the  
14 proposed project conforms with those policies.' [Citation.]" (*Ibid.*) A party  
15 challenging a city's determination that a project is consistent with its general  
16 plan "has the burden to show why, based upon the evidence in the record,  
17 the determination was unreasonable. [Citation.]" (*Ibid.*)

18 The record does not support the Committee's contentions. The site of  
19 the Project, Parcel 14, has a "CC" designation. (AR p. 012188.) This  
20 category provides for a broader range of goods and services to the service  
21 area. (Id. at p. 011774.) The primary uses on a CC designated parcel vary  
22 and are not limited to a single function. (*Ibid.*) They include a multitude of  
23 retail stores and businesses offering a full range of goods and services.  
24 (*Ibid.*) For example, these uses can include auto sales, auto repair,  
25 commercial child care, medical offices, and clinics. (*Ibid.*) The Stoneridge  
26 Specific Plan stated Parcel 14 could be used for a grocery/drug store and  
27 "any other neighborhood oriented uses". (Id. at p. 004808.) Nothing in the  
28 record substantially shows Parcel 14 was primarily meant to provide for a



1 grocery/drug store. Nor is there substantial evidence establishing the  
2 amendments to the Zoning Code or Stoneridge Specific Plan were  
3 inconsistent with the General Plan. Specifically, obtaining a conditional use  
4 permit was contemplated for CC zones seeking outdoor sports and  
5 recreation. (AR pp. 000379, 002040-002041, 002111-002113, 002761,  
6 002835, 002900, 002924-002926.) Further, the deletions of the non-  
7 vehicular access and deletion of the 25 park and ride spaces were  
8 determined not to be useful for a members-only fitness facility. (Id. at p.  
9 002111.) For these reasons, the Committee has not established the Project  
10 was inconsistent with, or conflicted with, the General Plan, Specific Plan, or  
11 any applicable laws.

#### 12 Contention Four - Irrelevant Analysis of the Supplemental Staff Report

##### 13 The Committee's Contentions

14 The Committee's final contention is that the supplemental staff report  
15 prepared for the December 4, 2013 hearing addressed the "wrong question"  
16 and reflects a prejudicial abuse of discretion on the part of the City.  
17 According to the Committee, the fatal flaw is that the supplemental staff  
18 report erroneously treated the EIR as being certified. The new information  
19 in the supplemental staff report should have been appended to the EIR and  
20 subjected to recirculation under CEQA since the City essentially invoked the  
21 standards under Public Resources Code section 21166.

##### 22 Respondents' Contentions

23 Respondents simply assert the Committee's allegations that a  
24 supplemental or subsequent EIR were invoked by the supplemental staff  
25 report under Section 21166 are incorrect and lack any evidentiary support.

##### 26 Discussion

27 The Committee's contention takes the staff report out of context.  
28 Public Resources Code section 21166 refers to subsequent or supplemental

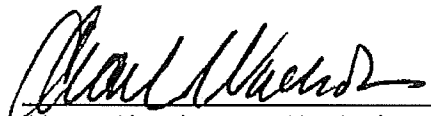


1 EIRs, which are not required unless (1) substantial changes are proposed in  
2 the project, requiring major revisions to the EIR; (2) substantial changes  
3 occur with the circumstances under which the project is undertaken that  
4 require major revisions to the EIR; or (3) new information that was  
5 unavailable at the time the EIR was certified as complete becomes available.  
6 The staff report presented at the December 4, 2013 hearing was prepared in  
7 response to comments and documents submitted by the Committee, among  
8 others, who appeared at the November 6, 2013 City Council meeting. (AR  
9 pp. 002894-002974, 002481-002820.) Following the close of the hearing  
10 and in response to these comments made after the comment period on the  
11 draft EIR had expired, the staff report determined the issues and  
12 documentation submitted were either previously analyzed or concerned  
13 areas not requiring analysis in the EIR. (Id. at p. 002483.) The record does  
14 not show there was discussion or analysis regarding the need for a  
15 supplemental or subsequent EIR. For these reasons, the Committee has not  
16 met its burden as to this allegation.

17 Disposition

18 The Committee's petition for writ of mandate is denied.

19  
20 Dated: 9-18-14

  
21 Hon. Charles D. Wachob  
22 Judge of the Superior Court  
23  
24  
25  
26  
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28



**SUPERIOR COURT OF CALIFORNIA  
IN AND FOR THE COUNTY OF PLACER**

**CLERK'S CERTIFICATE OF MAILING (C.C.P. §1013a(4))**

---

Case No.: SCV0034096

Case Name: **Committee for a Better Roseville vs. City of Roseville**

I, the undersigned, certify that I am the clerk of the Superior Court of California, County of Placer, and I am not a party to this case.

I mailed copies of the documents(s) indicated below:

**Ruling on Submitted Matter**

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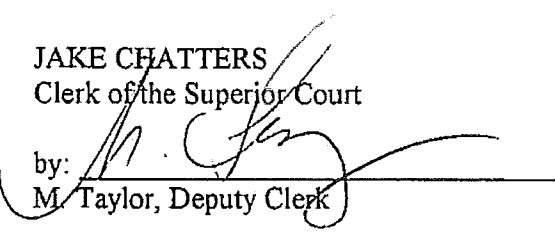
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JAKE CHATTERS  
Clerk of the Superior Court

Dated: September 18, 2014

by:   
M. Taylor, Deputy Clerk



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## The Big 'If' in UCSF's 'Support' for Golden State Warriors Arena



An architect's rendering of the Golden State Warriors' proposed new arena on San Francisco's Mission Bay waterfront. (MANICA Architecture)

By **Dan Brekke** (<http://ww2.kqed.org/news/author/danbrekke>) [ⓧ \(http://twitter.com/danbrekke\)](http://twitter.com/danbrekke)

JULY 28, 2015



Officials at UC San Francisco, the institution that may be the biggest obstacle to the Golden State Warriors' plan to build a grand new hoops palace in Mission Bay, say they'll go along with the arena proposal — if the city can resolve their concerns about the flood of traffic the new facility is expected to unleash.

In behind-the-scenes negotiations going back to last summer, UCSF has insisted the Warriors and the city provide guarantees that arena traffic won't interfere with patients and emergency vehicles trying to get to university hospitals. In return, UCSF would support the plan, which would plant an 18,500-seat arena and office complex (<http://www.nba.com/warriors/sf>) at the corner of Third and 16th streets.

Monday, with the public comment period on the city's environmental impact report (<http://www.sf-planning.org/index.aspx?page=1828>) for the arena about to close, the university said that it's on the verge — within millimeters, if not microns! — of bestowing its blessing. It's feeling so good about the new basketball/concert/show venue that it's even launched a website, WinWinSF.com (<http://www.winwinsf.com>), which features a very cheerful-looking pediatric care nurse opining rather daringly, "If we can bring the Warriors to San Francisco but also provide a safe environment for patients, I think it would be a win-win for both of us."

The site then lays out its vision of what the "win-win" looks like: "a binding agreement" that would lock the city, the San



San Francisco Giants (whose AT&T Park would be just up the street from the new basketball pleasure dome) and the Warriors into a long-term plan to manage scheduling at the venues and figure out a sane way to deal with traffic when games or concerts or monster truck events are slated at both sites simultaneously. The EIR for the project contemplates a total of 225 events each year ([http://www.gsweventcenter.com/Draft\\_SEIR\\_and\\_Appendices/Vol\\_1\\_GSW\\_MB\\_DSEIR.pdf](http://www.gsweventcenter.com/Draft_SEIR_and_Appendices/Vol_1_GSW_MB_DSEIR.pdf)) at the arena; that total includes 41 regular-season home games and about 60 other “full capacity” events.

UCSF’s “win-win” sounds rather conditional — what a wonderful world it would be if we could all watch basketball *and* avoid traffic jams! — and UCSF officials who spoke Monday didn’t really sound like they are all in for the arena. Case in point: Barbara French, the school’s vice chancellor for strategic communications and university relations.

“While UCSF welcomes the 2015 NBA Champions to San Francisco,” French declared strategically, “our support is contingent on achieving a binding agreement to ensure meaningful and lasting solutions to traffic impacts.”

French told KQED’s Alex Emslie that the university could envision a workable relationship with its prospective new NBA neighbors.

“We’re fine with the Warriors being across the street,” she said. “We think we can live together. There’s instances around the country where sports arenas live near a hospital. I’m not sure there’s instances where they’re directly across the street. But we think with good planning, with good traffic mitigations, there’s several major infrastructure projects that are to come online about the time the Warriors are to be here or shortly thereafter. We think that as a city, we need to be on the traffic, and as a hospital, we need to be sure our patients can get here.”

UCSF Chancellor Sam Hawgood, who’s been working on getting the city and the Warriors to commit to a traffic plan for the better part of a year, is quoted in the San Francisco Chronicle as saying, “I am confident that meaningful and lasting solutions can and will be worked out. The city and the Warriors understand that patient safety must be secured.”

Hawgood said the kind of binding “win-win” agreement UCSF is looking for is still a month or two away.

It would be interesting to know what San Francisco Mayor Ed Lee, Warriors management and the Giants — who have to be really happy to be dragged into this — might be offering as traffic solutions. The mayor, for one, has expressed interest (<http://www.sfgate.com/bayarea/article/I-280-near-Mission-Bay-would-be-raised-in-Caltrain-6254662.php>) in tearing down the northern end of Interstate 280. That would seem to complicate automobile access to the neighborhood. Public transit will be offered as a solution, but BART, Caltrain and Muni all face serious capacity issues. Has anybody proposed an armada of self-driving electric taxis?

While UCSF talks semi-optimistically about transportation solutions that have yet to emerge, one mostly anonymous group of wealthy San Franciscans is saying through its hired gun, PR maven Sam Singer, that there is no way to mitigate traffic to and from the new arena.

UCSF is “focusing on the Warriors games, which are in the evening,” Singer said Monday on behalf of the Mission Bay Alliance (<http://missionbayalliance.org/>). “There’s 185 more events. That’s an event every other day 1,000 feet from a major American emergency room and hospital. Muni runs 20 percent on time. BART is at 99 percent capacity. The city is making promises that it can’t possibly keep. ... We hope as time goes on, the city, the Warriors and the community will ultimately realize that this is a fatally flawed project.”

The alliance, which describes itself as “UCSF stakeholders, donors, faculty, physicians and the working men and women of San Francisco” (and has been described elsewhere (<http://big-bucks-donors-to-UCSF>) as anonymous “big-bucks donors to UCSF”), has said it will sue to block the arena.

On Monday, Singer promised something more colorful, veering from basketball to Dante-esque ice hockey metaphors to describe the group’s battle plan.



“As we explain the actual demerits of this project to the public we are going to win this battle,” Singer said. “Right now this game is in the first minutes of the first quarter. By the time the Mission Bay Alliance reaches the championship, we’re going to beat the owners of the Warriors. We’re going to wipe the court with them. ... We are going to fight the Warriors proposal until hell freezes over, and then we’re going to fight them on the ice.”

Of course, there’s one place the Warriors wouldn’t have to go through all this: that place in Oakland where they’ve had 123 regular-season sellouts in a row. Folks over there might actually welcome the idea of a new arena.

*Alex Emslie of KQED News contributed to this post.*



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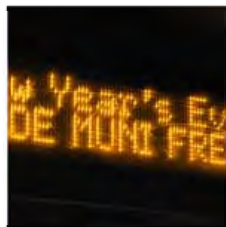
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## AUTHOR



### DAN BREKKE

Dan Brekke (Twitter: @danbrekke) has worked in media ever since Nixon's first term, when newspapers were still using hot type. He had moved on to online news by the time Bill Clinton met Monica Lewinsky. He's been at KQED since 2007, is an enthusiastic practitioner of radio and online journalism and will talk to you about absolutely anything. Reach Dan Brekke at [dbrekke@kqed.org](mailto:dbrekke@kqed.org).

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**MEMORANDUM**

**TO:** Agency Commissioners

**FROM:** Fred Blackwell, Executive Director

**SUBJECT:** Conditionally approving a Major Phase application for the new Salesforce.com corporate headquarters in Mission Bay (Blocks 26 – 34) pursuant to the Owner Participation Agreement with FOCIL-MB, granting a variance to the view corridor standards contained in the Mission Bay South Design for Development to accommodate one pedestrian bridge for Blocks 29-32, and adopting environmental findings pursuant to the California Environmental Quality Act; Mission Bay South Redevelopment Area.

**SUMMARY**

In November 2010, Salesforce.com, a San Francisco-based technology company (“Salesforce”), purchased 14 acres of land in the Mission Bay South Redevelopment Area to build a new, approximately two million square-foot corporate headquarters. The Salesforce campus will include office space, retail uses, on-site childcare, parking and other ancillary uses. The purchased property consists of eight vacant parcels: the undeveloped portions of Blocks 26 and 27 and all of Blocks 29 through 34. These blocks are bounded generally by Mission Bay Boulevard South, Third Street, Terry Francois Boulevard and Mariposa Street. The land was purchased from Alexandria Real Estate Equities, who had previously purchased the parcels from FOCIL-MB, the Mission Bay master developer.

On July 19, 2011, the Commission conducted an informational workshop on the proposed design of the Salesforce campus project. Now, in accordance with the Owner Participation Agreement (“OPA”) for Mission Bay South, Salesforce has submitted a Major Phase application for Block 26 (Parcel 1), Block 27 (Parcel 1) and Blocks 29 – 34. The Major Phase submittal is intended to serve as a detailed master plan for the new Salesforce campus. The Master Plan/Major Phase will guide future schematic design submittals for individual buildings on the campus. The Major Phase submittal includes a pedestrian bridge that requires a variance from the view corridor standards in the Mission Bay South Design for Development.

Salesforce has been working over the last six months with its design team, led by the internationally-renowned architecture firm Legorreta + Legorreta, on the Master Plan/Major Phase (“Major Phase”) for the new headquarters. The campus will consist of eight new buildings with a large open space in the center. The goal of the design, as presented in the Major Phase, is to create a distinctive identity for the Salesforce campus while also creating a vibrant, urban environment that will be well-integrated with the growing Mission Bay neighborhood. Unlike typical suburban corporate campuses, the Salesforce headquarters will be an open campus, with publically-accessible and inviting uses on the ground floor such as



retail, restaurants, childcare and open space. The architecture will be bold and colorful, using a rich palette of natural materials including stone, terracotta and traditional brick.

Salesforce anticipates bringing schematic designs for the first four campus buildings to the Commission for consideration at the end of this year and breaking ground on its first buildings later next year.

As part of its actions on September 17, 1998, establishing the Mission Bay Redevelopment Project Areas, the Agency Commission certified the Final Subsequent Environmental Impact Report (“FSEIR”) for the Mission Bay Redevelopment Projects (Resolution No. 182-98) and adopted findings under the California Environmental Quality Act (“CEQA”) (Resolution No. 183-98). This FSEIR includes by reference a number of addenda. Agency staff has reviewed the Salesforce Major Phase submittal and finds it to be within the scope of the project analyzed in the FSEIR and addenda and no additional environmental review is needed.

*Staff recommends that the Commission adopt environmental findings pursuant to the California Environmental Quality Act, approve a variance to the view corridor standards in the Mission Bay South Design for Development to accommodate one pedestrian bridge, and approve a Major Phase application for Blocks 26 (Parcel 1), Block 27 (Parcel 1) and Blocks 29 – 34 for the new Salesforce corporate headquarters in Mission Bay.*

## **BACKGROUND**

### **Salesforce Overview**

Founded in 1999 in San Francisco, Salesforce is a business software and information management company and a leader in what is known as “cloud computing.” Salesforce has 5,000 employees worldwide, including nearly 2,500 in San Francisco. It currently occupies approximately 550,000 square feet of leased space in several different buildings in San Francisco. This space will be consolidated in its new Mission Bay headquarters. Salesforce is one of the largest technology companies in San Francisco and is growing quickly.

### **Major Phase Submission Requirements**

The Mission Bay South Owner Participation Agreement between the Agency and FOCIL-MB and the Interagency Cooperation Agreement (“ICA”) between the Agency and City departments establish the protocols for development approvals in Mission Bay South. Under these agreements, FOCIL-MB, or a third party developer such as Salesforce, is required to submit its overall plans for development in “Major Phases” of one or more land use blocks.

As specified in the OPA, Major Phase submissions provide information on proposed land uses and intensities of development, height, bulk, and massing of future buildings, location and general design of open space, and the subdivision of blocks into building parcels. Each Major Phase application must also specify the required infrastructure improvements to be built in association with the blocks, including street and utility construction and streetscape improvements. Because of the scale, nature and timing of the Salesforce development, the



current Major Phase application contains additional information and is intended to serve as a more detailed master plan for the new Salesforce campus. The “enhanced” Salesforce Major Phase also addresses and codifies architectural style guidelines, a palette of building materials and colors, retail standards, conceptual landscape designs, sustainability parameters, public art strategies and general urban design principles.

The Major Phase submission must be consistent with the Mission Bay South Redevelopment Plan, the Mission Bay South Design for Development (“Design for Development”), the Mission Bay South Infrastructure Plan, and other Redevelopment Plan documents.

Major Phases do not present schematic designs for individual buildings. Schematic design applications for individual development projects within a Major Phase are submitted to the Commission for review following Major Phase approval and must be consistent with the requirements established for each Major Phase.

### **Previous Major Phase Approvals**

The Salesforce campus will include all or portions of eight blocks in Mission Bay South: Blocks 26, 27, 29 – 32 and 33 – 34.

The Commission previously approved a Major Phase application for Blocks 26 - 28 (Resolution No. 41-2000) in Mission Bay South. Three buildings have already been built on Blocks 26 to 28, pursuant to the previously approved Major Phase, including the Old Navy Headquarters and a biotechnology lab building and a parking garage. Salesforce has purchased the last two undeveloped parcels included in the previous Major Phase: Block 26, Parcel 1 and Block 27, Parcel 1. Therefore, this new Major Phase will only apply to the two undeveloped parcels now owned by Salesforce on Blocks 26 - 28.

The Commission also previously approved a Major Phase application for Blocks 29 – 32 in Mission Bay South, submitted by the prior owner, Alexandria Real Estate Equities (Resolution No. 84-2006). No development has occurred on these blocks and Salesforce purchased all four blocks covered by the previous Major Phase. Therefore, the current Major Phase submittal from Salesforce will serve as a completely revised Major Phase submittal for Blocks 29 – 32 and supplant the old one.

The Commission has not previously approved a Major Phase application for Blocks 33 and 34. Thus, the new Major Phase submittal from Salesforce will cover Block 26 (Parcel 1), Block 27 (Parcel 1), Blocks 29 – 32 and Blocks 33 – 34. It will supplant any previously approved Major Phase applications for these blocks.

## **DISCUSSION**

### **Salesforce Major Phase/Master Plan Overview**

In accordance with the Owner Participation Agreement for Mission Bay South, Salesforce has now submitted a Major Phase application for Block 26 (Parcel 1), Block 27 (Parcel 1) and



Blocks 29 – 34. The Major Phase application calls for an approximately two million square-foot corporate headquarters for the company on 14 acres in Mission Bay South. The Major Phase will serve as a detailed Master Plan for the Salesforce campus, which will include eight new main buildings with a large new open space in the center. In addition to office space for Salesforce, the project will include retail, childcare facilities, automobile and bicycle parking, service and loading areas and a series of smaller open spaces. It is estimated that the new headquarters will house between 8,000 and 10,000 employees.

The campus will be located on portions of Blocks 26 and 27 and on Blocks 29 through 34, bounded by Mission Bay Boulevard South, Third Street, Terry Francois Boulevard and Mariposa Street (see Attachment 1). The project site is across Third Street from the University of California, San Francisco (“UCSF”) research campus and the future UCSF Medical Center. Across Terry Francois Boulevard from the headquarters lie the San Francisco Bay and a future public park. The site is served by two MUNI light rail stops and planned MUNI bus lines.

The design team is led by Legorreta + Legorreta, a renowned architecture firm based in Mexico City. The design team also includes the San Francisco-based Flad Architects and local landscape architecture firms Andrea Cochran Landscape Architecture and Tom Leader Studio.

An aerial view of the campus design is shown in Attachment 2 and a site plan is included as Attachment 3. The complete Major Phase application is included as Attachment 4.

### ***Key Design Goals***

The fundamental design goal for the Salesforce campus, as described in the Major Phase, is to create a distinctive and cohesive identity for the Salesforce campus while also creating a vibrant, urban environment that will be well-integrated with the growing Mission Bay neighborhood. Another key design goal is to ensure that the future campus contributes to the vitality of Mission Bay’s street life and helps activate the pedestrian realm. Unlike typical suburban corporate campuses that often have a single, gated point of entry, the Salesforce headquarters will be an open campus, with publically-accessible and active uses on the ground floor such as retail, restaurants, childcare, fitness areas and open spaces. Each building will have its own entrance and the campus will be very permeable, with access points off all major streets. A central campus open space, referred to as the “Town Square” and discussed in more detail below, will be open to the public and will include cafes, open air markets, art work and other inviting uses.

### ***Land Use Program***

The Major Phase provides for the development of nearly 1.9 million square feet of office space, 65,000 square feet of new retail space, 21,000 square feet of on-site childcare, a series of publically accessible open spaces, as well as 2,211 parking spaces and ancillary service and circulation areas.



The following table summarizes the land use program contained in the Major Phase application.

Block	Site Area (acres)	Land Uses	Approx. Square Feet of Leasable Area Office Building	Approx. Square Feet of Retail
26 (Parcel 1)	.69	Office and Retail	174,281	1,200
27 (Parcel 1)	.99	Office and Retail	140,898	9,500
29	2.6	Office and Retail	342,749	12,500
30	1.85	Office, Retail, Parking	183,080	8,500
31	2.6	Office and Retail	499,253	20,000
32	1.85	Office, Retail, Childcare	216,392	3,500
33	1.71	Office, Retail, Parking	110,820	9,800
34	1.71	Office	223,527	0
<b>Total</b>	<b>14.00</b>		<b>1,891,000</b>	<b>65,000</b>

### ***Building Massing and Height***

The massing proposed in the Major Phase is intended to reinforce Mission Bay's urban setting while also being sensitive to the surrounding context. The proposed building heights on the campus will generally be built at the permitted base height of 90 feet. The Major Phase also permits up to three "towers" that may be up 160 feet tall, consistent with the Design for Development. However, the Major Phase establishes significant variations in building heights throughout the campus to help break down the massing, ensure contextual development and provide a sense of place and orientation.

Along Third Street, the buildings hold the urban streetwall, with the exception of a significant setback at the corner of South Street and Third Street, which is intended to serve as the main entrance to the campus. Building heights along Third Street will range generally from 90 feet to 155 feet, with a 155-foot "tower" element located on Block 26 to mark the beginning the Salesforce campus. Two additional 155-foot tower elements are located on the core of the campus on Blocks 29 and 31. Building heights step down significantly as the campus moves closer to the waterfront. Along Terry Francois Boulevard, building heights begin as low as 15 feet and work their way upward to 90 feet through a series of stepbacks and setbacks. These reductions in height are intended to create a sense of openness and expansiveness along the waterfront. The two southern-most blocks of the campus, Blocks 33 and 34 bounded by Third Street and Illinois Street, will range in height from 60 to 90 feet. However, Block 34 will include a series of terraced stepbacks along the narrow Illinois Street that begin as low as 15 feet in height.

That Major Phase application takes advantage of a Design for Development provision that allows unoccupied space above the allowable 90-foot and 160-foot height limits to create architecturally symbolic or ornamental features. Salesforce is proposing these elements in several key areas to add variety to the building massing and create a sense of place within the campus. A very slender portion of the 160-foot tower on Block 29 will have a terracotta screen that reaches 185 feet. This screen element will be the highest point in the development and will help define the central portion of the campus. Blocks 31, 34 and 34 will each have narrow, unoccupied ornamental building elements that extend beyond the 90-foot datum to 120 feet.



These elements will be marked by a change of material or fenestration pattern, and will help add variety and interest to the skyline of the campus.

### ***Approach to Architecture, Color and Materials***

As mentioned above, the design of the Salesforce campus is being led by Legorretta + Legorretta, a world renowned architecture firm. Legorretta + Legorretta's architecture is known for its simple yet bold geometric shapes, thick wall planes, an emphasis on natural light and the use of vibrant color, particularly reds, purples and yellows. Thus there will be a visual consistency to all eight buildings of the Salesforce campus, based on Legorretta + Legorretta's distinct and recognizable style.

While the Major Phase is not intended to include schematic design proposals for individual buildings, it does propose an architectural approach and palette of materials and colors for the future buildings, as laid out in Chapter 3 of the attached Major Phase. The Major Phase identifies a rich palette of natural, high-quality materials including limestone, terracotta and traditional. Under the Major Phase, every building on the campus will be constructed of one of these natural materials. Each building will also include a bright stucco accent color, such as purple, orange, blue, yellow, tangerine and pink, to provide visual interest and a building identity. For example, at the northern entrance to the campus, the Major Phase calls for a light-colored, limestone building with distinct pink accents. The central core campus on Blocks 29 – 32 will be defined by warmer terracotta buildings, each with a unique accent color.

### ***Retail Program and Childcare***

The Major Phase calls for 65,000 square feet of retail on the campus and 21,000 square feet of on-site childcare. The retail program will include a mix of sit-down restaurants, casual cafes, shops and services, located in key areas on the ground-floor of the project to help integrate the campus with the larger community and activate the pedestrian realm. The program calls for 38,000 square feet of retail along Third Street, 15,000 square feet in the campus's main open space described below, and 12,000 square feet along the waterfront. The complete retail program is described in Chapter 3 of the attached Major Phase application.

The retail is intended to serve Mission Bay's residents and daytime worker population, as well as Salesforce employees. Unlike other corporate campuses, Salesforce will not have private cafeterias or other eateries for its employees. Rather, Salesforce employees will use the public retail spaces, adding to the vitality of the area's street life.

Under the Major Phase, Salesforce will provide up to 21,400 square feet of on-site childcare space, consistent with the Mission Bay Redevelopment Plan childcare requirements (Section 304.9) and Section 414 of the San Francisco Planning Code. The proposed on-site childcare will accommodate approximately 200 children. While priority will be given to children of Salesforce employees for the on-site childcare spots, to the extent space is available, Salesforce and the childcare provider may make spaces available to the public.

### ***Campus Open Space – The Town Square***

The Salesforce campus will include a large, publically-accessible open space on Blocks 29 – 32 – referred to as the Town Square – as well as a series of smaller, interstitial open spaces and plazas. The Town Square will be at the center of the campus and is intended to be a gathering



place for the public as well as Salesforce employees. It will contain seating, farmer's markets, outdoor café space, art work and other programming.

Several key elements will help define the Town Square. There will be three habitable "pavilions" that will serve as sculptural elements in the space. The pavilions will include retail, meeting spaces and other uses to help activate the open space. Two of the pavilions will be designed by local or international artists to create architectural variety and interest. The third pavilion, located adjacent to the building on Block 31, will be designed by Legorreta + Legorreta in the same architectural vocabulary as the campus and will support an outdoor electronic screen. The screen will provide public programming, such as baseball games or movies, to help activate the central open space. The Agency will establish operational controls and requirements on the electronic screen during later design phases.

The Town Square will also include a series of water features, including a large one in the center of the space that will help modulate the scale of the open space; the size of the water feature will be designed to expand and contract, depending on the use in the Town Center. Finally, the central open space will be defined by two slim, vertical "pylons" rising to 165 feet. These pylons will help define the entries to the Town Square, and will relate to an existing visual language in Mission Bay of vertical elements in public spaces, including the Richard Serra sculptures on the UCSF campus and the tall campanile form on the UCSF Community Center building. The pylons, to be built of natural red sandstone, are intended to be an iconic and easily identifiable part of the Salesforce campus.

#### ***Circulation, Transit and Automobile and Bicycle Parking***

Vehicular access to the campus is proposed from South Street, Terry Francois Boulevard, 16<sup>th</sup> Street and Illinois Street. Vehicular curb cuts are not allowed on Third Street, the main transit spine in Mission Bay.

Blocks 29 – 32 on the Salesforce campus will be divided by north-south and east-west "varas" or privately-maintained, public right-of-ways that help breakdown the scale of the development and improve pedestrian circulation. The north-south vara will connect to an existing vara on Blocks 26 – 28, referred to as Bridgeview Way. It will provide pedestrian and emergency access through the site. The east-west vara is also proposed as a public pedestrian walkway, allowing pedestrians to walk from Third Street, through the campus, to Terry Francois Boulevard and beyond to the future Bayfront Park and the waterfront.

The Salesforce campus will be well-served by local transit. The site sits on the Third Street Light Rail line. In addition, the 22 Fillmore bus line will be rerouted to extend along 16<sup>th</sup> Street and will travel north along Third Street in front of the site. The Caltrain station is located less than a half-mile north from the site. The site is also well served by bicycle infrastructure, with dedicated bike lanes planned for 16<sup>th</sup> Street and Terry Francois Boulevard.

The Design for Development requires one parking space for each 1,000 square feet of gross floor area of office space. It also permits additional parking for retail space depending on the size and specific use. The Major Phase application therefore allows a maximum of 2,211 vehicular parking spaces. Salesforce will build two new parking structures on the campus (on Blocks 30 and 33) to accommodate 1,836 parking spaces. The remaining spaces will be



provided in the existing parking garage on Block 27 (Parcels 2 and 3), previously developed by Alexandria Real Estate Equities.

Lastly, the Design for Development requires one secured bicycle parking space for every 20 vehicular spaces for a total of 111 bicycle spaces. Salesforce is providing 450 bicycle parking spaces, well more than the number required. Salesforce will also provide showers and storage areas to support bicycle riders.

### ***Sustainable Design Strategies***

The Major Phase calls for incorporating cutting edge sustainable design and “green-building” strategies throughout the project. Salesforce intends to achieve LEED Platinum certification for the headquarters project, as defined by the US Green Building Council. This standard significantly exceeds the sustainability requirements of San Francisco’s Green Building Code. The project will include strategies to reduce water use, conserve and reduce energy, leverage alternative energy sources, including wind turbines, maximize natural light and use sustainable materials. An overview of the project’s approach to sustainability is included in Chapter 3 of the attached Major Phase.

### ***Infrastructure Improvements***

To serve the Salesforce campus, as well as the larger transportation needs of the Mission Bay South Project Area, public streets around the project will be improved. Improvements to South Street, 16<sup>th</sup> Street, Terry Francois Blvd., Illinois Street and Third Street will be completed, consistent with the Infrastructure Plan. New sidewalks will be built, and other pedestrian elements such as new trees, pedestrian scaled lighting, trash cans, and bike racks will be installed as part of the approved Mission Bay South Master Streetscape Plan.

New joint utility trench, wet utilities and recycled water lines will be installed as part of the street improvement work on Terry Francois Blvd, 16<sup>th</sup> Street and Illinois Street. New sewer lines will be installed along Illinois Street.

### **Proposed Variance to the Design for Development View Corridor Standards**

In Mission Bay South, pursuant to the Mission Bay South Design for Development, all street alignments, including both pedestrian and vehicular right-of-ways and privately-maintained public right-of-ways, or varas, are considered view corridors. According to the view corridor standards contained in the Design for Development, no building or portions of buildings may block a view corridor in Mission Bay South. This standard is intended maintain visual links to the Bay and the Mission Creek channel (which runs from south of the AT&T Ballpark to the I-280 freeway), as well as vistas to the hills, the Bay Bridge and the downtown skyline, and to generally create visual linkages that provide a sense of place and orientation within Mission Bay.

As part of this Major Phase submittal, Salesforce is requesting a variance to the Design for Development view corridor standards to allow a pedestrian bridge linking the buildings on Blocks 31 and 32, near the intersection of 16<sup>th</sup> Street and Illinois Street. This bridge would cross over a future extension of Bridgeview Way, one of the pedestrian varas and right-of-ways identified by the Design for Development as a view corridor. According to Salesforce, the bridge will allow critical operational efficiencies between the two buildings.



The Design for Development allows the Agency, at its discretion, to grant variances to the design standards contained in the Design for Development when: (1) “the enforcement would otherwise constitute an unreasonable limitation beyond the intent and purpose of the Design for Development and the Redevelopment Plan” and (2) if “the variance is consistent with the public health, safety and welfare.”

Staff finds that the granting the variance would not constitute an unreasonable limitation beyond the intent and purpose of the Design for Development and finds that granting the variance is consistent with the public health, safety and welfare. The proposed pedestrian bridge is located just north of the southern terminus of a view corridor that terminates at 16<sup>th</sup> Street, at an existing building. Views to the north from the campus, towards Mission Creek channel, AT&T Ballpark, the downtown skyline and beyond, would remain open and unobstructed. The bridge would not block any existing significant vistas and therefore would not be inconsistent with the intent and purpose of the Design for Development. Furthermore, allowing a pedestrian bridge at this location supports key economic development goals contained in the Mission Bay South Redevelopment Plan, such as creating and growing a new economic cluster of innovative companies in the high-technology, biotechnology and life-science industries. These industries require large and flexible floorplates. By connecting two buildings, the pedestrian bridge creates the larger building floorplates Salesforce needs to conduct its work and maximize operational efficiencies. Lastly, allowing a pedestrian bridge at this location will not injure or be detrimental to the health or safety of members of the public. Therefore, staff recommends granting the variance.

### **Citizens Advisory Committee (CAC) Review**

The Mission Bay Citizens Advisory Committee reviewed and discussed the design concepts contained in the Major Phase at its June 9<sup>th</sup> and August 11<sup>th</sup> meetings.

The CAC repeatedly expressed enthusiastic support for the Salesforce headquarters project. Members of the CAC appreciated the warmth and uniqueness of the proposed architecture and complimented the bold use of color. The CAC strongly commended Salesforce’s plans to keep the buildings public and permeable at the ground floor and were particularly pleased by Salesforce’s commitment to provide on-site childcare facilities. CAC members stated that the development would be a strong and desirable addition to Mission Bay.

The CAC asked Salesforce to be thoughtful about where the brightest accent colors are placed, as they will be visible to the occupants of surrounding buildings, including the future UCSF Medical Center. They also asked Salesforce to be sensitive about rooftop uses, visible from Potrero Hill and to provide more bicycle parking facilities, more spread out through the campus. Finally, they requested that Salesforce study further the size and design of the Town Center to ensure the space is well used.

In response to CAC input, Salesforce completed additional solar and wind studies to ensure that the campus open spaces are comfortable and usable. Salesforce will return to the CAC with more detailed information about the programming of the central open space during the schematic design phase. Salesforce has also substantially increased the amount of bicycle parking on the campus and will provide bicycle facilities such as storage and showers.



Salesforce prepared and shared views of the campus from Potrero Hill and the I-280 freeway, which demonstrated that most of the campus will be largely blocked from view by the future UCSF hospital.

All schematic designs for individual buildings will be brought to the CAC for additional review and input.

### **Mission Bay Program in Diversity**

Pursuant to the OPA, Salesforce must comply with the Mission Bay Program in Diversity ("Program"). Salesforce is in the process of assembling its professional services team and is currently exceeding the Agency's Minority/Women-Owned Business Enterprise ("M/WBE") professional services subcontracting goals of 38 percent (20 percent for MBEs and 18 percent for WBEs). Currently, M/WBE participation in Salesforce's professional services team is 53 percent. During construction, Salesforce will be bound by the Program's goals and requirements for M/WBE subcontracting and for local resident participation in the construction workforce.

### **Next Steps**

Once a Major Phase application is approved by the Agency Commission, Salesforce is required to submit schematic design applications for individual buildings, consistent with the approved Major Phase. The schematic designs also require Agency Commission review and approval.

Pursuant to the provisions of Section 304.11 of the Mission Bay South Redevelopment Plan, the Planning Commission also has schematic design review purview for the individual Salesforce buildings because they are office development projects. The Planning Commission will be asked to confirm a Planning Code Section 321 "Prop M" design approval providing authorization for the Salesforce office space prior to Agency Commission action on all schematic building designs.

Salesforce intends to submit schematic designs for individual campus buildings for consideration to both Commissions by the end of 2011. Salesforce anticipates breaking ground on its first building late next year and for the headquarters to be fully constructed over the next five to seven years.

### **CEQA Environmental Review**

As part of its actions in establishing the Mission Bay Redevelopment Project Areas on September 17, 1998, the Redevelopment and Planning Commissions certified the Mission Bay FSEIR, adopted CEQA findings, approved a series of mitigation measures, and established a comprehensive system for mitigation monitoring. The Board of Supervisors and various City departments adopted similar findings and mitigation monitoring plans. This FSEIR includes by reference eight (8) addenda.

Copies of the full four-volume FSEIR were distributed to the Commission prior to the 1998 certification and adoption of the environmental findings, and have subsequently been made available to members of the Commission. The addenda have also been made available to the



members of the Commission. Additional copies of the FSEIR and addenda will be delivered to the members of the Commission upon request, and are also available for review at the Agency's offices.

Agency staff has reviewed the Major Phase submitted for Blocks 26-34, as well as the requested variance to the view corridor standards contained the Mission Bay South Design for Development to accommodate one pedestrian bridge for Blocks 29-32, and has considered and reviewed the FSEIR and addenda. Staff finds the Major Phase and variance to be within the scope of the project analyzed in the FSEIR and subsequent addenda and no additional environmental review is required pursuant to State CEQA Guidelines Sections 15180, 15162, and 15163.

### **STAFF RECOMMENDATION AND CONDITIONS OF APPROVAL**

Staff recommends that the Commission adopt the environmental findings pursuant to the California Environmental Quality Act, grant a variance to the view corridor standards contained the Mission Bay South Design for Development to accommodate one pedestrian bridge and approve the Major Phase application for Block 26 (Parcel 1), Block 27 (Parcel 1) and Blocks 29 – 34, dated September 13, 2011, with the following conditions:

1. Consistent with the variance findings described above, the Salesforce campus shall be permitted one pedestrian bridge connecting Blocks 31 and 32. No other below or above ground connections between blocks or buildings (such as tunnels or bridges) shall be allowed anywhere on the campus. The schematic design of the bridge requires review and approval by the Agency. The schematic design for the bridge shall be submitted as part of the schematic design for the building on either Block 31 or 32. The bridge shall be a minimum of 40 feet above grade and be of an appropriate width and transparency as to create a sense of spaciousness and orientation on the campus and along 16<sup>th</sup> Street.
2. A schematic design application for the Town Center must be submitted to the Agency for review and approval concurrent with the first schematic design application for a building on Blocks 29 – 32.
3. The schematic designs for the three “pavilions” located in the Town Center require approval by the Agency. The schematic designs shall be submitted to the Agency for review and approval prior to Design Development approval of the last building on Blocks 29 – 32. Two of pavilions shall be designed by architects or artists other than the campus architect, Legorreta + Legorreta.
4. A plan detailing the final design, size and operational limitations of the outdoor electronic screen shall be submitted to the Agency for approval prior to Design Development approval of the building on Block 31. The operational standards for the outdoor electronic screen shall also be reviewed by the Citizens Advisory Committee.
5. A signage master plan for all Salesforce signage must be submitted concurrent with the Design Development application for the first building on Blocks 29 – 32.



No corporate, wayfinding, retail or other signage implied in the Major Phase application is approved as part of this Major Phase. All signage shall be consistent with the Mission Bay South Signage Master Plan.

6. All improvements to the public right-of-way surrounding the Salesforce campus shall be consistent with the Mission Bay South Streetscape Master Plan, unless otherwise noted in this Major Phase application.
7. All future schematic design submittals shall identify specific mitigations to address wind discomfort.
8. The design of the walking/jogging path on 16<sup>th</sup> Street along Blocks 31 and 32 shall be generally consistent with the path already installed on 16<sup>th</sup> Street along the UCSF campus to create a strong pedestrian connection to the waterfront.

(Originated by Kelley Kahn, Project Manager)

Fred Blackwell  
Executive Director

Attachments:

- 1) [Salesforce Location Map](#)
- 2) [Salesforce Headquarters: Aerial View](#)
- 3) [Salesforce Headquarters: Site Plan](#)
- 4) [Salesforce.com Global Headquarters Complex - Master Plan & Major Phase Submittal \(dated September 13, 2011\)](#)  
Click here for [Attachment 4 - Part I](#)  
Click here for [Attachment 4 - Part II](#)  
Click here for [Attachment 4 – Part III](#)



## **RESOLUTION NO. 97-2011**

### **CONDITIONALLY APPROVING A MAJOR PHASE APPLICATION FOR THE NEW SALESFORCE.COM CORPORATE HEADQUARTERS IN MISSION BAY (BLOCKS 26-34) PURSUANT TO THE OWNER PARTICIPATION AGREEMENT WITH FOCIL-MB, GRANTING A VARIANCE TO THE VIEW CORRIDOR STANDARDS CONTAINED IN THE MISSION BAY SOUTH DESIGN FOR DEVELOPMENT TO ACCOMMODATE ONE PEDESTRIAN BRIDGE FOR BLOCKS 29 – 32, AND ADOPTING ENVIRONMENTAL FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA**

#### **BASIS FOR RESOLUTION**

1. On September 17, 1998, by Resolution No. 190-98, the Commission of the Redevelopment Agency of the City and County of San Francisco (“Agency Commission”) approved the Redevelopment Plan for the Mission Bay South Redevelopment Project Area (“Plan”). On the same date, the Agency Commission adopted related documents, including Resolution No. 193-98 authorizing execution of an Owner Participation Agreement (“South OPA”) and related documents between Catellus Development Corporation, a Delaware corporation (“Catellus”), and the Agency. On November 2, 1998, the San Francisco Board of Supervisors (“Board of Supervisors”), by Ordinance No. 335-98, adopted the Plan. The Plan and its implementing documents, as defined in the Plan, constitute the “Plan Documents.”
2. On September 17, 1998, the Agency Commission adopted Resolution No. 182-98 which certified the Final Subsequent Environmental Impact Report (“FSEIR”) as a program EIR for Mission Bay North and South pursuant to the California Environmental Quality Act (“CEQA”) and State CEQA Guidelines Sections 15168 (Program EIR) and 15180 (Redevelopment Plan EIR). On the same date, the Agency Commission also adopted Resolution No. 183-98, which adopted environmental findings (and a statement of overriding considerations), in connection with the approval of the Plan and other Mission Bay project approvals (the “Mission Bay Project”). The San Francisco Planning Commission (“Planning Commission”) certified the FSEIR by Resolution No. 14696 on the same date. On October 19, 1998, the Board of Supervisors adopted Motion No. 98-132 affirming certification of the FSEIR by the Planning Commission and the Agency, and Resolution No. 854-98 adopting environmental findings and a statement of overriding considerations for the Mission Bay Project.
3. Subsequent to certification of the FSEIR, the Agency has issued several addenda to the FSEIR, as described in Recital 4 below. The addenda do not identify any



substantial new information or new significant impacts or a substantial increase in the severity of previously identified significant effects that alter the conclusions reached in the FSEIR. Hereinafter, the Final Subsequent Environmental Impact Report, including any addenda thereto, shall be collectively referred to as the “FSEIR.”

4. The first addendum, dated March 21, 2000, analyzed temporary parking lots to serve the AT&T Ballpark. The second addendum, dated June 20, 2001, analyzed revisions to 7th Street bike lanes and relocation of a storm drain outfall provided for in the Mission Bay South Infrastructure Plan, a component of the South OPA. The third addendum, dated February 10, 2004, analyzed revisions to the Mission Bay South Design for Development with respect to the maximum allowable number of towers, tower separation and requires step-backs. The fourth addendum, dated March 9, 2004, analyzed the Mission Bay South Design for Development with respect to the permitted maximum number of parking spaces for bio-technical and similar research facilities and the North OPA with respect to changes to reflect a reduction in permitted commercial development and associated parking. The fifth addendum, dated October 4, 2005, analyzed the UCSF proposal to establish a Phase I 400-bed hospital in Mission Bay South on Blocks 36-39 and X-3. The sixth addendum, dated September 10, 2008, addressed revisions of the UCSF Medical Center at Mission Bay. The seventh addendum, dated January 7, 2010, addressed the construction of a Public Safety Building on Block 8 in Mission Bay South.
5. Catellus, the original master developer of the Mission Bay North and South Redevelopment Project Areas, has sold most of its remaining undeveloped land in Mission Bay to FOCIL-MB, LLC, (“FOCIL-MB”), a subsidiary of Farallon Capital Management, LLC, a large investment management firm. The sale encompassed approximately 71 acres of land in Mission Bay, and the remaining undeveloped residential parcels in Mission Bay South. FOCIL-MB assumed all of Catellus’s obligations under the South OPA and the Agency’s Owner Participation Agreement for Mission Bay North (collectively, the “OPAs”), as well as all responsibilities under the related public improvement agreements and land transfer agreements with the City and County of San Francisco. FOCIL-MB is bound by all terms of the OPAs and related agreements, including the requirements of the affordable housing program, equal opportunity program, and design review process.
6. The Plan and the Plan Documents, including the Design Review and Document Approval Procedure, designated as Attachment G to the South OPA (“DRDAP”), provide that development proposals in Mission Bay South will be reviewed and processed in “Major Phases,” as defined in and consistent with the Plan and the Plan Documents. Submission of design plans and documents for any specific building (“Project”) must be consistent with the requirements established for each Major Phase. The DRDAP sets forth the review and approval process for Major Phases and Projects.



7. As permitted under the South OPA, Alexandria Real Estate Equities (“ARE”) purchased Blocks 26 - 34 from FOCIL-MB.
8. As permitted under the South OPA, Salesforce.com (“Developer”) purchased Block 26 (parcel 1), Block 27 (parcel 2) and Blocks 29 – 34 from ARE. Salesforce.com will be bound by all relevant terms of the South OPA and related agreements, including the requirements of the equal opportunity program and design review process.
9. Pursuant to the Plan and Plan Documents, including the DRDAP, Developer submitted a major phase application for Blocks 26 (parcel 1), Block 27 (parcel 1) and Blocks 29 - 34 dated September 13, 2011 (“Blocks 26 - 34 Major Phase”).
10. The Blocks 26 - 34 Major Phase includes a proposal for a pedestrian bridge linking future buildings on Blocks 31 and 32, crossing a privately-maintained public right-of-way between South Street and 16th Street.
11. The Plan, through the Mission Bay South Design for Development (“Design for Development”), identifies all street alignments, including the privately maintained public right-of-way between Blocks 31 and 32 as view corridors.
12. The Design for Development includes a design standard that prohibits new buildings or portions of buildings from blocking view corridors.
13. The Plan allows the Agency, at its discretion, to grant a variance to the design standards contained in the Design for Development when (1) “the enforcement would otherwise constitute an unreasonable limitation beyond the intent and purpose of the Design for Development and the Redevelopment Plan” and (2) if “the variance is consistent with the public health, safety and welfare.”
14. Agency staff believes a variance should be granted. The proposed pedestrian bridge is located just north of the southern terminus of a view corridor that terminates at 16<sup>th</sup> Street, at an existing building. Views to the north through the corridor would remain open and unobstructed. The bridge would not block any existing significant vistas and therefore would not be inconsistent with the intent and purpose of the Design for Development. Furthermore, allowing a pedestrian bridge at this location supports key economic goals contained in the Plan, such as creating a new economic development cluster in Mission Bay centered on high-technology and biotechnology industries. These industries require large and flexible floorplates. By connecting two buildings, the proposed pedestrian bridge creates the floorplate size Salesforce needs to conduct its work and maximize operational efficiencies. Lastly, allowing a pedestrian bridge at this location will not injure or be detrimental to the health or safety of members of the public.
15. Agency staff has reviewed the Blocks 26 - 34 Major Phase submitted by Developer, for purposes of compliance with CEQA and the State CEQA Guidelines.



16. The FSEIR is a program EIR under CEQA Guidelines Section 15168 and a redevelopment plan EIR under CEQA Guidelines Section 15180. Approval of the Blocks 26-34 Major Phase including the proposed pedestrian bridge is an undertaking pursuant to and in furtherance of the Plan in conformance with CEQA Section 15180 (“Implementing Action”).
17. Agency staff, in making the necessary findings for the Implementing Action contemplated herein, considered and reviewed the FSEIR and has made documents related to the Implementing Action and the FSEIR files available for review by the Agency Commission and the public, and these files are part of the record before the Agency Commission.
18. The FSEIR findings and statement of overriding considerations adopted in accordance with CEQA by the Agency Commission by Resolution No. 183-98 dated September 17, 1998, were and remain adequate, accurate and objective and are incorporated herein by reference as applicable to the Implementing Action.
19. Agency staff has reviewed the Blocks 26 – 34 Major Phase submitted by the Developer, finds it acceptable and recommends approval thereof, subject to the resolution of certain conditions.

## **FINDINGS**

The Agency finds and determines that the Blocks 26-34 Major Phase submission, including the proposed pedestrian bridge, is an Implementing Action within the scope of the Project analyzed in the FSEIR and requires no additional environmental review pursuant to State CEQA Guidelines Sections 15180, 15162 and 15163 for the following reasons:

1. The Implementing Action does not incorporate substantial changes into the Project analyzed in the FSEIR and will not require major revisions to the FSEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
2. No substantial changes have occurred with respect to the circumstances under which the Project analyzed in the FSEIR was undertaken that would require major revisions to the FSEIR due to the involvement of new significant environmental effects, or a substantial increase in the severity of effects identified in the FSEIR.
3. No new information of substantial importance to the Project analyzed in the FSEIR has become available which would indicate that (a) the Implementing Action will have significant effects not discussed in the FSEIR; (b) significant environmental effects will be substantially more severe; (c) mitigation measures or alternatives found not feasible which would reduce one or more significant



effects have become feasible; or (d) mitigation measures or alternatives which are considerably different from those in the FSEIR will substantially reduce one or more significant effects on the environment.

## **RESOLUTION**

**ACCORDINGLY, IT IS RESOLVED** by the Redevelopment Agency of the City and County of San Francisco (1) that it has reviewed and considered the FSEIR findings and statement of overriding considerations and hereby adopts the CEQA Findings set forth in Resolution No. 183-98 incorporated herein and those set forth above; (2) a variance is granted to the view corridor standards contained in the Mission Bay South Design for Development to accommodate one pedestrian bridge for Blocks 29-32; and (3) that the Blocks 26 - 34 Major Phase is hereby approved pursuant to the Mission Bay South Owner Participation Agreement with FOCIL-MB, subject to the following program, operational and design requirements being addressed in design phases proposals for individual buildings on Blocks 26 – 34:

1. Consistent with the variance findings described above, the Salesforce campus shall be permitted one pedestrian bridge connecting Blocks 31 and 32. No other below or above ground connections between blocks or buildings (such as tunnels or bridges) shall be allowed anywhere on the campus, with the exception of underground garages, loading docks, service areas and corridors, as proposed in the Major Phase. The schematic design of the bridge requires review and approval by the Agency. The schematic design for the bridge shall be submitted as part of the schematic design for the building on either Block 31 or 32. The bridge shall be a minimum of 40 feet above grade and be of an appropriate width and transparency as to create a sense of spaciousness and orientation on the campus and along 16th Street.
2. A schematic design application for the Town Center must be submitted to the Agency for review and approval concurrent with the first schematic design application for a building on Blocks 29 – 32.
3. The schematic designs for the three “pavilions” located in the Town Center require approval by the Agency. The schematic designs shall be submitted to the Agency for review and approval prior to Design Development approval of the last building on Blocks 29 – 32. Two of pavilions shall be designed by architects or artists other than the campus architect, Legorreta + Legorreta.
4. A plan detailing the final design, size and operational limitations of the outdoor electronic screen shall be submitted to the Agency for approval prior to Design Development approval of the building on Block 31. The operational standards for the outdoor electronic screen shall also be reviewed by the Citizens Advisory Committee.
5. A signage master plan for all Salesforce signage must be submitted concurrent with the Design Development application for the first building on Blocks 29 –



32. No corporate, wayfinding, retail or other signage implied in the Major Phase application is approved as part of this Major Phase. All signage shall be consistent with the Mission Bay South Signage Master Plan.

6. All improvements to the public right-of-way surrounding the Salesforce campus shall be consistent with the Mission Bay South Streetscape Master Plan, unless otherwise noted in this Major Phase application.
7. All future schematic design submittals shall identify specific mitigations to address wind discomfort.
8. The design of the walking/jogging path on 16th Street along Blocks 31 and 32 shall be generally consistent with the path already installed on 16th Street along the UCSF campus to create a strong pedestrian connection to the waterfront.

**APPROVED AS TO FORM:**

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James B. Morales  
Agency General Counsel



## **RESOLUTION NO. 97-2011**

*Adopted September 20, 2011*

**CONDITIONALLY APPROVING A MAJOR PHASE APPLICATION FOR THE NEW SALESFORCE.COM CORPORATE HEADQUARTERS IN MISSION BAY (BLOCKS 26-34) PURSUANT TO THE OWNER PARTICIPATION AGREEMENT WITH FOCIL-MB, GRANTING A VARIANCE TO THE VIEW CORRIDOR STANDARDS CONTAINED IN THE MISSION BAY SOUTH DESIGN FOR DEVELOPMENT TO ACCOMMODATE ONE PEDESTRIAN BRIDGE FOR BLOCKS 29 – 32, AND ADOPTING ENVIRONMENTAL FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA**

### **BASIS FOR RESOLUTION**

1. On September 17, 1998, by Resolution No. 190-98, the Commission of the Redevelopment Agency of the City and County of San Francisco ("Agency Commission") approved the Redevelopment Plan for the Mission Bay South Redevelopment Project Area ("Plan"). On the same date, the Agency Commission adopted related documents, including Resolution No. 193-98 authorizing execution of an Owner Participation Agreement ("South OPA") and related documents between Catellus Development Corporation, a Delaware corporation ("Catellus"), and the Agency. On November 2, 1998, the San Francisco Board of Supervisors ("Board of Supervisors"), by Ordinance No. 335-98, adopted the Plan. The Plan and its implementing documents, as defined in the Plan, constitute the "Plan Documents."
2. On September 17, 1998, the Agency Commission adopted Resolution No. 182-98 which certified the Final Subsequent Environmental Impact Report ("FSEIR") as a program EIR for Mission Bay North and South pursuant to the California Environmental Quality Act ("CEQA") and State CEQA Guidelines Sections 15168 (Program EIR) and 15180 (Redevelopment Plan EIR). On the same date, the Agency Commission also adopted Resolution No. 183-98, which adopted environmental findings (and a statement of overriding considerations), in connection with the approval of the Plan and other Mission Bay project approvals (the "Mission Bay Project"). The San Francisco Planning Commission ("Planning Commission") certified the FSEIR by Resolution No. 14696 on the same date. On October 19, 1998, the Board of Supervisors adopted Motion No. 98-132 affirming certification of the FSEIR by the Planning Commission and the Agency, and Resolution No. 854-98 adopting environmental findings and a statement of overriding considerations for the Mission Bay Project.
3. Subsequent to certification of the FSEIR, the Agency has issued several addenda to the FSEIR, as described in Recital 4 below. The addenda do not identify any



substantial new information or new significant impacts or a substantial increase in the severity of previously identified significant effects that alter the conclusions reached in the FSEIR. Hereinafter, the Final Subsequent Environmental Impact Report, including any addenda thereto, shall be collectively referred to as the "FSEIR."

4. The first addendum, dated March 21, 2000, analyzed temporary parking lots to serve the AT&T Ballpark. The second addendum, dated June 20, 2001, analyzed revisions to 7th Street bike lanes and relocation of a storm drain outfall provided for in the Mission Bay South Infrastructure Plan, a component of the South OPA. The third addendum, dated February 10, 2004, analyzed revisions to the Mission Bay South Design for Development with respect to the maximum allowable number of towers, tower separation and requires step-backs. The fourth addendum, dated March 9, 2004, analyzed the Mission Bay South Design for Development with respect to the permitted maximum number of parking spaces for bio-technical and similar research facilities and the North OPA with respect to changes to reflect a reduction in permitted commercial development and associated parking. The fifth addendum, dated October 4, 2005, analyzed the UCSF proposal to establish a Phase I 400-bed hospital in Mission Bay South on Blocks 36-39 and X-3. The sixth addendum, dated September 10, 2008, addressed revisions of the UCSF Medical Center at Mission Bay. The seventh addendum, dated January 7, 2010, addressed the construction of a Public Safety Building on Block 8 in Mission Bay South.
5. Catellus, the original master developer of the Mission Bay North and South Redevelopment Project Areas, has sold most of its remaining undeveloped land in Mission Bay to FOCIL-MB, LLC, ("FOCIL-MB"), a subsidiary of Farallon Capital Management, LLC, a large investment management firm. The sale encompassed approximately 71 acres of land in Mission Bay, and the remaining undeveloped residential parcels in Mission Bay South. FOCIL-MB assumed all of Catellus's obligations under the South OPA and the Agency's Owner Participation Agreement for Mission Bay North (collectively, the "OPAs"), as well as all responsibilities under the related public improvement agreements and land transfer agreements with the City and County of San Francisco. FOCIL-MB is bound by all terms of the OPAs and related agreements, including the requirements of the affordable housing program, equal opportunity program, and design review process.
6. The Plan and the Plan Documents, including the Design Review and Document Approval Procedure, designated as Attachment G to the South OPA ("DRDAP"), provide that development proposals in Mission Bay South will be reviewed and processed in "Major Phases," as defined in and consistent with the Plan and the Plan Documents. Submission of design plans and documents for any specific building ("Project") must be consistent with the requirements established for each Major Phase. The DRDAP sets forth the review and approval process for Major Phases and Projects.



7. As permitted under the South OPA, Alexandria Real Estate Equities ("ARE") purchased Blocks 26 - 34 from FOCIL-MB.
8. As permitted under the South OPA, Salesforce.com ("Developer") purchased Block 26 (parcel 1), Block 27 (parcel 2) and Blocks 29 - 34 from ARE. Salesforce.com will be bound by all relevant terms of the South OPA and related agreements, including the requirements of the equal opportunity program and design review process.
9. Pursuant to the Plan and Plan Documents, including the DRDAP, Developer submitted a major phase application for Blocks 26 (parcel 1), Block 27 (parcel 1) and Blocks 29 - 34 dated September 13, 2011 ("Blocks 26 - 34 Major Phase").
10. The Blocks 26 - 34 Major Phase includes a proposal for a pedestrian bridge linking future buildings on Blocks 31 and 32, crossing a privately-maintained public right-of-way between South Street and 16th Street.
11. The Plan, through the Mission Bay South Design for Development ("Design for Development"), identifies all street alignments, including the privately maintained public right-of-way between Blocks 31 and 32 as view corridors.
12. The Design for Development includes a design standard that prohibits new buildings or portions of buildings from blocking view corridors.
13. The Plan allows the Agency, at its discretion, to grant a variance to the design standards contained in the Design for Development when (1) "the enforcement would otherwise constitute an unreasonable limitation beyond the intent and purpose of the Design for Development and the Redevelopment Plan" and (2) if "the variance is consistent with the public health, safety and welfare."
14. Agency staff believes a variance should be granted. The proposed pedestrian bridge is located just north of the southern terminus of a view corridor that terminates at 16<sup>th</sup> Street, at an existing building. Views to the north through the corridor would remain open and unobstructed. The bridge would not block any existing significant vistas and therefore would not be inconsistent with the intent and purpose of the Design for Development. Furthermore, allowing a pedestrian bridge at this location supports key economic goals contained in the Plan, such as creating a new economic development cluster in Mission Bay centered on high-technology and biotechnology industries. These industries require large and flexible floorplates. By connecting two buildings, the proposed pedestrian bridge creates the floorplate size Salesforce needs to conduct its work and maximize operational efficiencies. Lastly, allowing a pedestrian bridge at this location will not injure or be detrimental to the health or safety of members of the public.
15. Agency staff has reviewed the Blocks 26 - 34 Major Phase submitted by Developer, for purposes of compliance with CEQA and the State CEQA Guidelines.



16. The FSEIR is a program EIR under CEQA Guidelines Section 15168 and a redevelopment plan EIR under CEQA Guidelines Section 15180. Approval of the Blocks 26-34 Major Phase including the proposed pedestrian bridge is an undertaking pursuant to and in furtherance of the Plan in conformance with CEQA Section 15180 ("Implementing Action").
17. Agency staff, in making the necessary findings for the Implementing Action contemplated herein, considered and reviewed the FSEIR and has made documents related to the Implementing Action and the FSEIR files available for review by the Agency Commission and the public, and these files are part of the record before the Agency Commission.
18. The FSEIR findings and statement of overriding considerations adopted in accordance with CEQA by the Agency Commission by Resolution No. 183-98 dated September 17, 1998, were and remain adequate, accurate and objective and are incorporated herein by reference as applicable to the Implementing Action.
19. Agency staff has reviewed the Blocks 26 – 34 Major Phase submitted by the Developer, finds it acceptable and recommends approval thereof, subject to the resolution of certain conditions.

## FINDINGS

The Agency finds and determines that the Blocks 26-34 Major Phase submission, including the proposed pedestrian bridge, is an Implementing Action within the scope of the Project analyzed in the FSEIR and requires no additional environmental review pursuant to State CEQA Guidelines Sections 15180, 15162 and 15163 for the following reasons:

1. The Implementing Action does not incorporate substantial changes into the Project analyzed in the FSEIR and will not require major revisions to the FSEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
2. No substantial changes have occurred with respect to the circumstances under which the Project analyzed in the FSEIR was undertaken that would require major revisions to the FSEIR due to the involvement of new significant environmental effects, or a substantial increase in the severity of effects identified in the FSEIR.
3. No new information of substantial importance to the Project analyzed in the FSEIR has become available which would indicate that (a) the Implementing Action will have significant effects not discussed in the FSEIR; (b) significant environmental effects will be substantially more severe; (c) mitigation measures or alternatives found not feasible which would reduce one or more significant



effects have become feasible; or (d) mitigation measures or alternatives which are considerably different from those in the FSEIR will substantially reduce one or more significant effects on the environment.

## RESOLUTION

**ACCORDINGLY, IT IS RESOLVED** by the Redevelopment Agency of the City and County of San Francisco (1) that it has reviewed and considered the FSEIR findings and statement of overriding considerations and hereby adopts the CEQA Findings set forth in Resolution No. 183-98 incorporated herein and those set forth above; (2) a variance is granted to the view corridor standards contained in the Mission Bay South Design for Development to accommodate one pedestrian bridge for Blocks 29-32; and (3) that the Blocks 26 - 34 Major Phase is hereby approved pursuant to the Mission Bay South Owner Participation Agreement with FOCIL-MB, subject to the following program, operational and design requirements being addressed in design phases proposals for individual buildings on Blocks 26 – 34:


1. Consistent with the variance findings described above, the Salesforce campus shall be permitted one pedestrian bridge connecting Blocks 31 and 32. No other below or above ground connections between blocks or buildings (such as tunnels or bridges) shall be allowed anywhere on the campus, with the exception of underground garages, loading docks, service areas and corridors, as proposed in the Major Phase. The schematic design of the bridge requires review and approval by the Agency. The schematic design for the bridge shall be submitted as part of the schematic design for the building on either Block 31 or 32. The bridge shall be a minimum of 40 feet above grade and be of an appropriate width and transparency as to create a sense of spaciousness and orientation on the campus and along 16th Street.
2. A schematic design application for the Town Center must be submitted to the Agency for review and approval concurrent with the first schematic design application for a building on Blocks 29 – 32.
3. The schematic designs for the three “pavilions” located in the Town Center require approval by the Agency. The schematic designs shall be submitted to the Agency for review and approval prior to Design Development approval of the last building on Blocks 29 – 32. Two of pavilions shall be designed by architects or artists other than the campus architect, Legorreta + Legorreta.
4. A plan detailing the final design, size and operational limitations of the outdoor electronic screen shall be submitted to the Agency for approval prior to Design Development approval of the building on Block 31. The operational standards for the outdoor electronic screen shall also be reviewed by the Citizens Advisory Committee.
5. A signage master plan for all Salesforce signage must be submitted concurrent with the Design Development application for the first building on Blocks 29 –



32. No corporate, wayfinding, retail or other signage implied in the Major Phase application is approved as part of this Major Phase. All signage shall be consistent with the Mission Bay South Signage Master Plan.

6. All improvements to the public right-of-way surrounding the Salesforce campus shall be consistent with the Mission Bay South Streetscape Master Plan, unless otherwise noted in this Major Phase application.
7. All future schematic design submittals shall identify specific mitigations to address wind discomfort.
8. The design of the walking/jogging path on 16th Street along Blocks 31 and 32 shall be generally consistent with the path already installed on 16th Street along the UCSF campus to create a strong pedestrian connection to the waterfront.

**APPROVED AS TO FORM:**

  
James B. Morales  
Agency General Counsel



**MEMORANDUM**

**TO:** Agency Commissioners

**FROM:** Tiffany Bohee, Executive Director

**SUBJECT:** Conditionally approving the Combined Basic Concept and Schematic Design for **Block 29** of the new Salesforce.com campus in Mission Bay (Blocks 29 – 32) in the Mission Bay South Redevelopment Project Area, pursuant to the Owner Participation Agreement with FOCIL-MB, LLC, and adopting environmental findings pursuant to the California Environmental Quality Act; Mission Bay South Redevelopment Project Area.

Conditionally approving the Combined Basic Concept and Schematic Design for **Block 30** of the new Salesforce.com campus in Mission Bay (Blocks 29 – 32) in the Mission Bay South Redevelopment Project Area, pursuant to the Owner Participation Agreement with FOCIL-MB, LLC, and adopting environmental findings pursuant to the California Environmental Quality Act; Mission Bay South Redevelopment Project Area.

Conditionally approving the Combined Basic Concept and Schematic Design for **Block 31** of the new Salesforce.com campus in Mission Bay (Blocks 29 – 32) in the Mission Bay South Redevelopment Project Area, pursuant to the Owner Participation Agreement with FOCIL-MB, LLC, and adopting environmental findings pursuant to the California Environmental Quality Act; Mission Bay South Redevelopment Project Area.

Conditionally approving the Combined Basic Concept and Schematic Design for **Block 32** of the new Salesforce.com campus in Mission Bay (Blocks 29 – 32) in the Mission Bay South Redevelopment Project Area, pursuant to the Owner Participation Agreement with FOCIL-MB, LLC, and adopting environmental findings pursuant to the California Environmental Quality Act; Mission Bay South Redevelopment Project Area.

Conditionally approving the Combined Basic Concept and Schematic Design for the **Town Square and Site Landscape** of the new Salesforce.com campus in Mission Bay (Blocks 29 – 32) in the Mission Bay South Redevelopment Project Area, pursuant to the Owner Participation Agreement with FOCIL-MB, LLC, and adopting environmental findings pursuant to the California Environmental Quality Act; Mission Bay South Redevelopment Project Area.



## SUMMARY

In November 2010, salesforce.com, inc. a San Francisco-based technology company (“Salesforce”), purchased 14 acres of land in the Mission Bay South Redevelopment Area to build a new, approximately two million square-foot corporate campus. The Salesforce campus will include office space, retail uses, on-site childcare, parking and other ancillary uses. The purchased property consists of eight vacant parcels: the undeveloped portions of Blocks 26 and 27 and all of Blocks 29 through 34. The land was purchased from Alexandria Real Estate Equities, who had previously purchased the parcels from FOCIL-MB, the Mission Bay master developer.

On July 19, 2011, the Commission received an informational hearing on the Salesforce campus and provided input on design concepts for the project. On September 20, 2011, the Commission approved a Major Phase application for all eight blocks of the Salesforce campus: Block 26 (Parcel 1), Block 27 (Parcel 1) and Blocks 29 – 34 (“Major Phase”). The Major Phase serves as a master plan for the new Salesforce campus and is intended to guide future schematic design submittals for individual buildings on the campus.

Now, in accordance with the Owner Participation Agreement (“OPA”) for Mission Bay South, Salesforce has submitted Combined Basic Concept and Schematic Design applications for buildings on the first four blocks of its campus, Blocks 29, 30, 31 and 32, and for associated open space and site landscaping (“Schematic Designs”). Taken together, these four buildings will contain approximately 1.2 million gross square feet of office development, 50,000 square feet of retail, 22,000 square feet of childcare and 900 parking spaces. The four buildings will be surrounded by approximately four acres of publicly accessible open space, including the “Town Square,” a large central plaza that will include water features, outdoor cafés, art work and other public programming.

The proposed Schematic Designs achieve the key design goal articulated in the Major Phase. The design of the four buildings and the Town Square help define a distinctive identity for the Salesforce campus while also creating a vibrant urban environment that will be well-integrated with the growing Mission Bay neighborhood. The design team is led by Legorreta + Legorreta, an internationally renowned architecture firm based in Mexico City.

The Mission Bay Citizen’s Advisory Committee (“CAC”) has reviewed the Schematic Designs several times over the last six months, most recently at its meeting on January 12, 2012. The CAC has consistently expressed support for the Salesforce project, particularly its colorful and unique architectural style and its active and inviting ground floor.

Pursuant to the provisions of Section 304.11 of the Mission Bay South Redevelopment Plan, the Planning Commission also has schematic design review purview for the individual Salesforce buildings because they are office development projects. On February 16, 2012, the Planning Commission will be asked to confirm a Planning Code Section 321 “Prop M” design approval providing authorization for the Salesforce office space on Blocks 29 - 32. The Agency Commission’s approval of the Schematic Designs for Blocks 29 - 32 is contingent on Planning Commission’s design review approval.



As part of its actions on September 17, 1998, establishing the Mission Bay Redevelopment Project Areas, the Agency Commission certified the Final Subsequent Environmental Impact Report (“FSEIR”) for the Mission Bay Redevelopment Projects (Resolution No. 182-98) and adopted findings under the California Environmental Quality Act (“CEQA”) (Resolution No. 183-98). This FSEIR includes by reference a number of addenda. Agency staff has reviewed the Schematic Design submittals and finds them to be within the scope of the project analyzed in the FSEIR and addenda and no additional environmental review is needed.

### **AB 26 and Mission Bay**

As required by AB 26, the Agency has been in a “suspended” state since June 29, 2011. Under AB 26, however, the Agency has been able to fulfill enforceable obligations which were in place prior to that date, including the Mission Bay South OPA, which was approved in 1998. The OPA sets forth the process for development approvals within the Project Area, and requires the Agency to consider design submissions, including Major Phase and vertical development proposals, on a timely schedule. Therefore, the Agency is able to approve the four Salesforce schematic designs at the current time.

Pursuant to AB 26, on February 1, 2012, the Agency will be dissolved. The City of San Francisco as the successor agency will automatically assume all of the Agency’s enforceable obligations. In Mission Bay, these include the North and South OPA’s, Interagency Cooperation Agreements, Tax Increment Allocation Pledge Agreements, and many related documents. On January 24, 2012, the Board of Supervisors adopted a resolution related to the Agency’s dissolution which affirmed the City’s commitment to Mission Bay and other major approved development projects going forward.

*Staff recommends that the Commission adopt environmental findings pursuant to the California Environmental Quality Act and approve the Combined Basic Concept and Schematic Designs for Blocks 29 – 32 and the Town Square and Site Landscape for the Salesforce.com campus in the Mission Bay.*

## **DISCUSSION**

### **Salesforce Overview**

Founded in 1999 in San Francisco, Salesforce is a business software and information management company and a leader in what is known as “cloud computing.” Salesforce has 7,000 employees worldwide, including nearly 3,000 in San Francisco. It currently occupies approximately 640,000 square feet of leased space in several different buildings in San Francisco. Salesforce is one of the largest technology companies in San Francisco and is growing quickly. It is estimated that the new Mission Bay campus will house between 8,000 and 9,000 employees.



### **Salesforce Approved Major Phase**

On September 20, 2011, the Commission approved a Major Phase application for the entire Salesforce campus, covering eight blocks in Mission Bay South: Block 26 (Parcel 1), Block 27 (Parcel 1) and Blocks 29 – 34. The campus site is bounded by Mission Bay Boulevard South, Third Street, Terry Francois Boulevard and Mariposa Street (see Attachment 1). The site is across Third Street from the University of California, San Francisco (“UCSF”) research campus and the future UCSF Medical Center.

The approved Major Phase allows an approximately two million square-foot corporate campus for the company in eight buildings on 14 acres in Mission Bay. In addition to office space for Salesforce, the approved Major Phase calls for retail, childcare facilities, automobile and bicycle parking, service and loading areas and significant open space. The Major Phase also includes architectural and urban design guidelines, a palette of building materials and colors, retail standards, conceptual landscape designs and sustainability parameters.

As part of its approval of the Major Phase application, the Commission also approved a variance to the Design for Development view corridor standards to allow a single pedestrian bridge linking the buildings on Blocks 31 and 32, near the intersection of 16<sup>th</sup> Street and Illinois Street. The bridge will cross over a future extension of Bridgeview Way, a privately-owned pedestrian corridor or “vara.” By connecting two buildings, the pedestrian bridge creates the larger building floorplates that Salesforce needs to conduct its work and maximize operational efficiencies.

Pursuant to the Mission Bay South OPA, schematic designs for individual buildings can be submitted following the Major Phase approval.

### **Blocks 29 – 32 Schematic Designs**

In accordance with the OPA, Salesforce has now submitted Schematic Design applications for the first four buildings on its campus and for the Town Square and related landscaping. This first phase of the project will be on Blocks 29, 30, 31 and 32 in Mission Bay South, bounded by South Street, Terry Francois Boulevard, 16<sup>th</sup> Street and Third Street. See Attachment 1 for the location of these blocks.

The design team is led by Legorreta + Legorreta, a renowned architecture firm based in Mexico City. The design team also includes the San Francisco-based Flad Architects and local landscape architecture firms Andrea Cochran Landscape Architecture and Tom Leader Studio.

### ***Campus Wide Design Goals & Approach***

The design of the buildings on Blocks 29 – 32 is consistent with the overall design goals for the Salesforce campus established in the Major Phase. A key design goal, as described in the approved Major Phase, is to create a distinctive identity for the Salesforce campus while also creating a vibrant, urban environment that will be well-integrated with the growing Mission Bay neighborhood. Another key design goal is to ensure that the future campus contributes to the vitality of Mission Bay’s street life and helps activate the pedestrian realm. Unlike typical suburban corporate campuses that often have a single, gated point of entry, the Salesforce headquarters will be an open campus, with publically-accessible and active uses on the ground



floor such as retail, restaurants, childcare, fitness areas, meeting rooms and open spaces. Each building will have its own entrance and the campus will be very permeable, with access off all major streets.

Consistent with Legorreta +Legorreta's distinct style, the campus buildings, including Blocks 29 – 32, will feature simple yet bold geometric shapes, thick wall planes, an emphasis on natural light and the use of vibrant color, particularly reds, purples and yellows, creating a visual consistency to the campus. All buildings will be made of high-quality materials including stone and terracotta. An aerial view of the complete Salesforce campus is shown in Attachment 2.

### ***Overview of Schematic Design for Blocks 29 – 32***

The four buildings on Blocks 29 - 32 will contain approximately 1.2 million gross square feet of office development, approximately 50,000 square feet of retail and approximately 22,000 square feet of childcare. The building on Block 30 will include a parking garage containing 900 parking spaces. A subterranean service tunnel will provide access to loading docks that will serve all four buildings. The four buildings will be surrounded by approximately four acres of publicly accessible open space, including the Town Square.

The architectural approach for all four building is a consistent and playful variation on a theme: boldly-scaled, punctuated planes fold over the main masses of each building. Glass curtain walls on the upper floors make these folding planes appear to be floating. The use of setbacks, step backs, terraces, projections and variations in height provide individuality to each building. The primary building materials for Blocks 29 – 32 will be terracotta, in varying reddish hues, and light colored stone. Each building will include a bright accent color, such as pink or purple, to provide visual interest and a building identity. A materials palette is included as Attachment 18.

The design of each building and the Town Square and related landscaping are described in more detail below.

### ***Block 29, Olive Building***

Block 29 is 2.6 acres and is located at the corner of Third Street and South Street. The building on Block 29 is approximately 327,000 gross square feet, including approximately 15,000 square feet of retail. The retail fronts the Town Square and the north-south pedestrian vara to help activate these spaces. A site plan of the building is included in Attachment 3.

Block 29 serves as the primary entry to the Salesforce campus. The building is setback from the corner of Third and South Streets to accommodate a large entry plaza. The building contains a ten-story tower element setback on the site that steps down to a six-story mass closer to Third Street and the Town Square. The tower element is covered with a “folding plane” that travels from the roof to the ground floor along the north-south vara. The façade of this plane is punctuated by an irregular pattern of openings and made of a light colored stone. The six story element is red terracotta and is covered by a large plane that overhangs the entry plaza, supported by multi-colored columns that help announce the building entry. An olive accent color is used throughout the building, providing a sense of identity.



A key element of the design for Block 29 is a 182-foot high, very slender “campanile” that is attached to the tower element. The campanile will be the highest point in the development and will help define the central portion of the campus. The campanile is also made of the Morisca stone, with olive-colored metal and stucco accents throughout. The designs for the building on Block 29 are shown in Attachments 4 – 6.

***Block 30, Purple Building***

Block 30 is 1.85 acres and is located at the corner of South Street and Terry Francois Boulevard. The building is approximately 184,900 gross square feet and includes approximately 11,000 square feet of retail and restaurant space fronting Terry Francois Boulevard and a proposed fitness center. In addition, the building includes a nine-story parking garage (with two additional levels underground) fronting South Street, which contains 900 parking spaces. A site plan is included as Attachment 7.

The building steps down toward the water, with a 60-foot office element fronting Terry Francois Boulevard. This portion of the building is made of orange terracotta, with metal panels around the retail entrances. Moving away from the water, the building rises to 90 feet using a glass curtainwall on the upper floors. This mass is wrapped by a folding plane, similar in form to Building 29, that drops down to the ground floor along the north-south side. The folding plane is made of stone, accented with purple metal and stucco. Adjacent to the office element is the fitness center, designed to be highly-transparent with many windows surrounded by a very distinctive purple metal panel system.

The parking garage fronts South Street and uses a system of orange terracotta baguettes to screen the cars. The base of the parking garage is made of yellow terracotta to add interest and warmth at the pedestrian level. Ingress and egress to the garage is off of South Street. The designs for Block 30 are shown in Attachments 8, 9 and 16.

***Block 31, Pink Building***

Block 31 is 2.6 acres and is located at the corner of Third Street and 16<sup>th</sup> Street, two major arterials in Mission Bay. The building is approximately 443,600 square feet and contains approximately 19,000 square feet of ground-floor retail along Third Street and the Town Square. A site plan for Building 31 is included as Attachment 10.

Along Third Street, the building holds the streetwall and rises to 60 feet. This portion of the building contains ground-floor retail with office spaces above. It is constructed of a yellow terracotta with a regular horizontal window pattern. The ground-floor retail is very transparent, with nearly floor-ceiling glass windows. After 60 feet, the building is setback slightly and continues to rise to 90 feet using a glass curtain wall system.

At the corner of 16<sup>th</sup> Street and Third Street, the building rises to 152 feet, the second of two tower elements on Blocks 29 – 32. The tower is setback from the corner, creating a public plaza at the ground floor to serve and support the abutting retail uses. The top two stories of the tower are clear curtain wall, wrapped in a folding plane made of Morisca stone. As the building moves down 16<sup>th</sup> Street, another six story element of office space fronts the street. At 60 feet, the building steps back slightly and rises two more stories using a glass curtain wall. This mass is also wrapped in a folding plane made of Morisca stone, which lands at the ground



floor along the north-south vara (Bridgeview Way). The main entrance to the building is on 16<sup>th</sup> Street, constructed entirely of glass.

Terraces and projecting meeting rooms add interest to all the facades and a detail of pink stucco and metal is used throughout, including in the deep punched recesses of the folding planes. The building designs are shown in Attachments 6 and 11 – 13.

### ***Block 32 – Yellow Building***

Block 32 is 1.85 acres and is located at the corner of 16<sup>th</sup> Street and Terry Francois Boulevard, fronting the San Francisco Bay. This is the smallest of the four buildings at approximately 223,000 gross square feet. It includes 3,600 square feet of retail and nearly 22,000 square feet of indoor childcare space. A site plan for this building is included as Attachment 14.

The building steps down towards the waterfront through a series of usable terraces, creating a sense of openness and expansiveness along the Bay. The building is approximately 16-foot tall and soon thereafter 32-foot tall along Terry Francois Boulevard, stepping up gradually to 60 feet. This portion of the building is made of red terracotta. After another step back at 60 feet, the building changes from terracotta to a two-story glass curtain wall, wrapped in a folding plane of light-colored stone that ends along the vara on the west side of the building. A series of protruding elements add interest to the facades. The main entrance to the building is off 16<sup>th</sup> Street, created of sheer glass to create a distinct contrast with the terracotta. This building uses yellow metal and stucco accents to give it its identity. The design of Block 32 is seen in Attachments 15 - 17.

The west façade of the building connects to the building on Block 31 via a pedestrian bridge at the 4<sup>th</sup> floor. The bridge concept was approved as part of the Major Phase approval, but the more detailed design is part of the Schematic Design submittal for this building. As seen in Attachment 16, the bridge is very transparent, comprised of clear glass and vertical metal framing. The metal framing is spaced more closely at the ends and thins out toward the middle, creating the impression of an accordion. From inside the bridge, the metal panels look pink while walking in one direction and yellow while walking the other direction (corresponding to the two buildings that the bridge connects).

### ***Campus Open Space***

Blocks 29 – 32 will include a large, publically-accessible plaza referred to as the Town Square as well as a series of smaller, interconnecting open spaces and plazas.

The entrances to the campus open space and will be defined by two very large vertical “pylons” that will be up to 165 feet tall, 20 feet wide and 7 feet in depth: one along Third Street and one along Terry Francois Boulevard. These pylons relate to an existing visual language in Mission Bay of vertical elements in public spaces, including the Richard Serra sculptures on the UCSF campus and the tall campanile form on the UCSF Community Center building. The pylons, to be built of red stone, are intended to be an iconic and easily identifiable part of the Salesforce campus.

The Town Square will serve as the center of the campus and is intended to be a gathering place for the public as well as Salesforce employees. It will contain seating, food trucks, farmer’s markets, outdoor café space, art work and other programming. Several key elements will help



define the Town Square. It will include a water feature in the center of the square that will help modulate the scale of the open space; the size of the water feature will be designed to expand and contract, depending on the use in the Town Center. In addition, an organically-shaped, concrete pergola will define an area for outdoor café seating within the Town Square.

There will also be three “pavilions” in the space. Two of the pavilions will be structural elements in the space designed by local or international artists to create architectural variety and interest. One of these will be in an outdoor area dedicated to the childcare center as part of the childcare play space. The third pavilion, located adjacent to the building on Block 31, will be designed by Legorreta + Legorreta in the same architectural vocabulary as the campus and will support an outdoor electronic screen. The screen will provide public programming, such as baseball games, art installations or movies as well as some Salesforce-related programming, to help activate the central open space. The Operational controls and requirements of the electronic screen will be established during later design phases. The designs of these pavilions are not part of this submittal and will be completed once artists have been selected.

In addition to the Town Square at the center of the four blocks, the landscaping plan includes several plazas and clear pedestrian pathways, taking advantage of the north-south and east-west “varas” or privately-maintained, public right-of-ways that are required on the site. A key goal of the landscaping plan is to lead and invite the public from the Third Street MUNI stop at the corner of Third Street and South Street, through the campus, towards the San Francisco Bay. A large entry plaza at the corner of Third Street and South Street marks the main entrance to the campus, made obvious by multi-colored columns and a distinct paving pattern. A “bio-acequia” system (a system of water features in the ground plane) guides the public from the entry plaza into the site to the main Town Square and through the vara to a waterfront plaza abutting the Bay at Terry Francois Boulevard. Along the way, intimate places for sitting and gathering are created, including an olive tree grove with lounge seating and a walkway lined with palm trees. Low walls for seating and planted gardens to help sustainably manage stormwater will further define the campus open space.

The planting palette for the site consists of drought-tolerant species that also have strong architectural forms to help define the space such as Canary Island palms, olive trees and lemon-scented gum trees. An attractive and colorful selection of furnishings will be in the open space, including multi-colored, moveable chairs and tables for the café seating, wooden bench seating and more organically-shaped lounge seating.

The designs of the Town Square and other campus open spaces are shown in Attachments 19 – 23.

### ***Transit and Automobile and Bicycle Parking***

The Design for Development establishes a parking requirement of one parking space for each 1,000 square feet of gross floor area of office space. It also permits additional parking for retail space depending on the size and specific use. Consistent with these requirements, the buildings on Blocks 29 - 32 will be served by 1,394 parking spaces, including 900 spaces in the parking garage now being proposed on Block 30. The additional spaces will be in an existing parking garage on Block 27 and in a future parking garage on Block 33 in Mission Bay. The parking garage on Blocks 33 will be the subject of a future Schematic Design application by Salesforce.



The Design for Development also requires one secured bicycle parking space for every 20 vehicular spaces. Salesforce is providing roughly 310 bicycle parking spaces on these four blocks, well more than the 70 required. Salesforce will also provide showers and storage areas to support bicycle riders.

Finally, the Salesforce campus will be well-served by local transit. The site sits on the Third Street Light Rail line. In addition, SFMTA intends to reroute the 22 Fillmore bus to extend along 16<sup>th</sup> Street and will travel north along Third Street in front of the site. The Caltrain station is located less than a half-mile north from the site. The site is also well served by bicycle infrastructure, with dedicated bike lanes planned for 16<sup>th</sup> Street and Terry Francois Boulevard.

### ***Sustainable Design Strategies***

The design of Blocks 29 - 32 incorporates cutting edge sustainable design and “green-building” strategies throughout the project. Salesforce is targeting LEED Platinum for the project, as defined by the US Green Building Council. This standard exceeds the sustainability requirements of San Francisco’s Green Building Code. The design includes strategies to reduce water use, conserve and reduce energy, leverage alternative energy sources, maximize natural light, treat on-site stormwater with green strategies and use sustainable materials.

### **Citizens Advisory Committee (CAC) Review**

The Mission Bay Citizens Advisory Committee reviewed and discussed the design of the Salesforce campus four times over the last six months, most recently at its meeting on January 12, 2012.

The CAC has repeatedly expressed enthusiastic support for the Salesforce project. Members of the CAC appreciated the warmth and uniqueness of the proposed architecture and complimented the bold use of color. The CAC strongly commended Salesforce’s plans to keep the buildings public and permeable at the ground floor and were particularly pleased by Salesforce’s commitment to provide on-site childcare facilities. CAC members stated that the development would be a strong and desirable addition to Mission Bay.

The CAC asked Salesforce to be thoughtful about where the brightest accent colors are placed, as they will be visible to the occupants of surrounding buildings, including the future UCSF Medical Center. They also asked Salesforce to be sensitive about rooftop uses, visible from Potrero Hill and to provide more bicycle parking facilities, more spread out through the campus.

In response to CAC input, Salesforce completed additional solar and wind studies to ensure that the campus open spaces are comfortable and usable. Salesforce also substantially increased the amount of bicycle parking on the campus and will provide bicycle facilities such as storage and showers. Salesforce prepared and shared views of the campus from Potrero Hill and the I-280 freeway, which demonstrated that most of the campus will be largely blocked from view by the future UCSF hospital.



### **Planning Commission Review**

Pursuant to the provisions of Section 304.11 of the Mission Bay South Redevelopment Plan, the Planning Commission also has schematic design review purview for the individual Salesforce buildings because they are office development projects. On February 16, 2012, the Planning Commission will be asked to confirm a Planning Code Section 321 "Prop M" design approval providing authorization for the Salesforce office space on Blocks 29 - 32. The Agency Commission's approval of the Schematic Designs for Blocks 29 - 32 is contingent on Planning Commission's design review approval.

The Planning Commission received an informational presentation on the proposed campus design on January 12, 2012 and responded very favorably to the project.

### **Mission Bay Program in Diversity and Trainee Hiring Goals**

Pursuant to the OPA, Salesforce must comply with the Mission Bay Program in Diversity ("Program"). To date, Salesforce has exceeded the Agency's Minority/Women-Owned Business ("M/WBE") professional services subcontracting goal of 38 percent (20 percent for MBEs and 18 percent for WBEs). The M/WBE participation in Salesforce's professional services team continues to hold steady at 53 percent M/WBE businesses. The professional services team is expected to provide trainee opportunities that are based on the consultants' fees. The current goal is to create approximately 75 professional service trainee opportunities over the course of the Salesforce project.

Since the Commission meeting on September 20, 2011, the Agency's Contract Compliance staff has established a bridge between the professional consultants, City College of San Francisco ("CCSF"), and San Francisco State University ("SFSU") to create a pipeline of qualified referrals for the professional trainee program. Overall, there is a large percentage of students from diverse backgrounds in CCSF's Architectural Department and SFSU's Engineering Department who are both economically disadvantaged and meet the eligibility criteria to participate in a trainee program.

After several meetings between staff, CCSF and SFSU, the proposed plan is to generate interest through a job fair that would allow CCSF and SFSU students an opportunity to meet and greet various architecture and engineering firms working on Agency projects, including the Salesforce project, review the firms' trainee job descriptions/opportunities, and to submit their resumes in hopes of employment. Classes resumed in mid-January and staff plans to work with CCSF and SFSU to hold a job fair in late February 2012 or facilitate introductions between the schools and Salesforce consultants to work together directly depending on the next steps related to the Agency's dissolution.

Staff is also in the early stages of exploring how to utilize the existing Trainee module in the Elation System to facilitate an electronic referral system, similar to the construction worker request process in Elation, to interface between the professional consultants and the students that meet the qualifications of the trainee positions.

Lastly, during construction, Salesforce will be bound by the Program's goals and requirements for M/WBE subcontracting and for local resident participation in the construction workforce.



### **Next Steps**

Salesforce is targeting breaking ground on its first building at the end of this year and for the campus to be fully constructed over the next five to seven years.

### **CEQA Environmental Review**

As part of its actions in establishing the Mission Bay Redevelopment Project Areas on September 17, 1998, the Redevelopment and Planning Commissions certified the Mission Bay FSEIR, adopted CEQA findings, approved a series of mitigation measures, and established a comprehensive system for mitigation monitoring. The Board of Supervisors and various City departments adopted similar findings and mitigation monitoring plans. This FSEIR includes by reference eight (8) addenda.

Copies of the full four-volume FSEIR were distributed to the Commission prior to the 1998 certification and adoption of the environmental findings, and have subsequently been made available to members of the Commission. The addenda have also been made available to the members of the Commission. Additional copies of the FSEIR and addenda will be delivered to the members of the Commission upon request, and are also available for review at the Agency's offices.

Agency staff has reviewed the Combined Basic Concept and Schematic Designs submitted for Blocks 29-32 and has considered and reviewed the FSEIR and addenda. Staff finds the Combined Basic Concept and Schematic Designs to be within the scope of the project analyzed in the FSEIR and subsequent addenda and no additional environmental review is required pursuant to State CEQA Guidelines Sections 15180, 15162, and 15163.

### **STAFF RECOMMENDATION AND CONDITIONS OF APPROVAL**

Staff recommends that the Commission adopt the environmental findings pursuant to the California Environmental Quality Act and approve the Combined Basic Concept and Schematic Designs for Blocks 29 – 32 and the Town Square and Site Landscape for the Salesforce.com campus, with the following conditions:

1. The building materials, colors, finishes, architectural detailing, and landscape design may be refined, in consultation with Agency staff, during Design Development phase. A material and color mock-up of sufficient size to be built on the construction site during an early phase of construction shall be prepared for Agency staff review to ensure consistency with approved plans.
2. The designs for the three “pavilions” located in the Town Square shall be submitted to the Agency for review and approval as part of the Design Development phase for the Town Square and/or the Design Development phase for the building on Block 32. Two of pavilions shall be designed by architects or artists other than the campus architect, Legorreta + Legorreta.



3. A plan detailing the final design, size and operational standards of the outdoor electronic screen shall be submitted for review and approval as part of the Design Development phase of the building on Block 31. The operational standards for the outdoor electronic screen shall also be reviewed by the Citizens Advisory Committee.
4. The design of the exterior play area serving the childcare center on Block 32 shall be submitted for review and approval as part of the Design Development phase for the building on Block 32. Of particular interest to the Agency will be how the exterior play area meets the publicly-accessible open space along the vara and the need to ensure a pedestrian-friendly treatment to any necessary enclosures for the play area.
5. The design of the water feature in the Town Square and the base of the pylons (including the details of the relationship between these water features and the pylons) shall be refined during the Design Development phase for the Town Square.
6. The design of all wind screens, sunshades, louvers, canopies and other architectural details require approval as part of the Design Development phase for all blocks.
7. Cooking exhaust shafts extending to the roof shall be included in retail spaces designated for restaurants as part of the Design Development submittals.
8. Proposals for public art (in addition to the pavilions described in condition #2 above) shall be submitted to the Agency for review.
9. The configuration of the photovoltaic panels, rooftop mechanical equipment and penthouses shall be further refined during the Design Development phase.
10. A signage master plan for all Salesforce signage must be submitted concurrent with the Design Development application for the first building on Blocks 29 – 32. No corporate, wayfinding, retail or other signage implied in the Basic Concept and Schematic Design applications is approved as part of this action. All signage shall be consistent with the Mission Bay South Signage Master Plan.
11. All improvements to the public right-of-way surrounding the Salesforce campus shall be consistent with the Mission Bay South Streetscape Master Plan, with the exception of the Arbutus Marina tree planting pattern and the paving material on Block 29, as shown in the Town Square and Site Landscape submittal.
12. The amount and/or width of curb cuts serving the parking garage and loading zones shall be refined during the Design Development phase and shall be consistent with any relevant City and County of San Francisco standards. Of particular interest to the Agency is avoiding excessive interruption to the pedestrian path of travel and to the public realm.



13. The Commission's approval of the Schematic Designs for the buildings on Blocks 29 - 32 is contingent on the Planning Commission's design review approval of the buildings consistent with Planning Code Section 321.

(Originated by Kelley Kahn, Project Manager)

Tiffany Bohee  
Executive Director

**Attachments (Bound separately):**

Attachment 1: Blocks 29 – 32 Location Map

Attachment 2: Aerial View of Salesforce Campus

Attachment 3: Block 29 Site Plan

Attachment 4: Block 29 View from 3<sup>rd</sup> Street and South Street

Attachment 5: Block 29 View from Vara Looking Northwest

Attachment 6: Blocks 29 and 31, View from 3<sup>rd</sup> Street Looking East

Attachment 7: Block 30 Site Plan

Attachment 8: Block 30, View from Terry Francois Looking Southwest

Attachment 9: Block 30, View from South Street Looking South

Attachment 10: Block 31 Site Plan

Attachment 11: Block 31, View from Third Street and 16<sup>th</sup> Street

Attachment 12: Block 31, View from Town Square

Attachment 13: Block 31, View from Third Street

Attachment 14: Block 32 Site Plan

Attachment 15: Block 32, View from Terry Francois Looking South

Attachment 16: Block 32, View of Block 30 and 32 from the Bay looking Southwest

Attachment 17: Block 32, View of Bridge between Block 31 and Block 32

Attachment 18: Materials Board – Buildings

Attachment 19: Town Square and Landscape, Site Plan

Attachment 20: Town Square, View looking Southeast

Attachment 21: Town Square, View from Pergola

Attachment 22: Town Square and Landscape, View from Third Street

Attachment 23: Materials Board – Town Square and Landscape



## **RESOLUTION NO. 10-2012**

### **CONDITIONALLY APPROVING THE COMBINED BASIC CONCEPT AND SCHEMATIC DESIGN FOR BLOCK 29 OF THE NEW SALESFORCE.COM CAMPUS IN MISSION BAY (BLOCK 29 – 32) IN THE MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA, PURSUANT TO THE OWNER PARTICIPATION AGREEMENT WITH FOCIL-MB, LLC, AND ADOPTING ENVIRONMENTAL FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA**

#### **BASIS FOR RESOLUTION**

1. On September 17, 1998, by Resolution No. 190-98, the Commission of the Redevelopment Agency of the City and County of San Francisco (“Agency Commission”) approved the Redevelopment Plan for the Mission Bay South Redevelopment Project Area (“Plan”). On the same date, the Agency Commission adopted related documents, including Resolution No. 193-98 authorizing execution of an Owner Participation Agreement (“South OPA”) and related documents between Catellus Development Corporation, a Delaware corporation, and the Agency. On November 2, 1998, the San Francisco Board of Supervisors (“Board of Supervisors”), by Ordinance No. 335-98, adopted the Plan. The Plan and its implementing documents, as defined in the Plan, constitute the “Plan Documents.”
2. On September 17, 1998, the Agency Commission adopted Resolution No. 182-98 which certified the Final Subsequent Environmental Impact Report (“FSEIR”) as a program EIR for Mission Bay North and South pursuant to the California Environmental Quality Act (“CEQA”) and State CEQA Guidelines Sections 15168 (Program EIR) and 15180 (Redevelopment Plan EIR). On the same date, the Agency Commission also adopted Resolution No. 183-98, which adopted environmental findings (and a statement of overriding considerations), in connection with the approval of the Plan and other Mission Bay project approvals (the “Mission Bay Project”). The San Francisco Planning Commission (“Planning Commission”) certified the FSEIR by Resolution No. 14696 on the same date. On October 19, 1998, the Board of Supervisors adopted Motion No. 98-132 affirming certification of the FSEIR by the Planning Commission and the Agency, and Resolution No. 854-98 adopting environmental findings and a statement of overriding considerations for the Mission Bay Project.
3. Subsequent to certification of the FSEIR, the Agency has issued several addenda to the FSEIR, as described in Recital 4 below. The addenda do not identify any substantial new information or new significant impacts or a substantial increase in the severity of previously identified significant effects that alter the conclusions reached in the FSEIR. Hereinafter, the Final Subsequent Environmental Impact Report, including any addenda thereto, shall be collectively referred to as the “FSEIR.”



4. The first addendum, dated March 21, 2000, analyzed temporary parking lots to serve the ballpark. The second addendum, dated June 20, 2001, analyzed revisions to 7th Street bike lanes and relocation of a storm drain outfall provided for in the Mission Bay South Infrastructure Plan, a component of the South OPA. The third addendum, dated February 10, 2004, analyzed revisions to the Mission Bay South Design for Development with respect to the maximum allowable number of towers, tower separation and require step-backs. The fourth addendum, dated March 9, 2004, analyzed the Mission Bay South Design for Development with respect to the permitted maximum number of parking spaces for bio-technical and similar research facilities and the North OPA with respect to changes to reflect a reduction in permitted commercial development and associated parking. The fifth addendum, dated October 4, 2005, analyzed the UCSF proposal to establish a Phase I 400-bed hospital in Mission Bay South on Blocks 36-39 and X-3. The sixth addendum, dated September 10, 2008, addressed revisions of the UCSF Medical Center at Mission Bay. The seventh addendum, dated January 7, 2010, addressed the construction of a Public Safety Building on Block 8 in Mission Bay South.
5. On or about June 28, 2011, a bill providing for the dissolution on February 1, 2012 of all redevelopment agencies was adopted by the California legislature and signed by the Governor (the “dissolution legislation” or “AB 26”). By its terms, the dissolution legislation became effective immediately. The dissolution legislation requires agencies and “successor agencies” to honor “enforceable obligations,” as defined in Section 34167 of the legislation. The definition of “enforceable obligation” includes “[a]ny legally binding and enforceable agreement or contract that is not otherwise void as violating the debt limit or public policy.” The South OPA and its attachments is such a contract.
6. Pursuant to AB 26, on February 1, 2012, the Agency will be dissolved. The City of San Francisco as the successor agency will automatically assume all of the Agency’s enforceable obligations. In Mission Bay, these include the Plan and the Plan Documents. On January 24, 2012, the Board of Supervisors adopted a resolution related to the Agency’s dissolution which affirmed the City’s commitment to Mission Bay and other major approved development projects going forward.
7. The Plan and the Plan Documents, including the Design Review and Document Approval Procedure, designated as Attachment G to the South OPA (“DRDAP”), provide that development proposals in Mission Bay South will be reviewed and processed by the Agency in “Major Phases,” as defined in and consistent with the Plan and the Plan Documents. Submission of design plans and documents for any specific building must be consistent with the requirements established for each Major Phase. The DRDAP sets forth the review and approval process for Major Phases and Projects. The obligation of the Agency to review and approve Major Phases and Projects, including Schematic Designs, if they are consistent with the requirements for each Major Phase is an “enforceable obligation” within the meaning of the dissolution legislation.
8. As permitted under the South OPA, Alexandria Real Estate Equities (“ARE”) purchased Blocks 26 - 34 from FOCIL-MB.



9. As permitted under the South OPA, salesforce.com, inc. (“Developer” or “Salesforce”) purchased Block 29, in Mission Bay South, from ARE. Developer will be bound by all relevant terms of the South OPA and related agreements, including the requirements of the equal opportunity program and design review process.
10. On September 20, 2011, by Resolution No. 97-2011, the Agency Commission approved the Developer’s Major Phase Application for Blocks 26-34 in the Mission Bay South Redevelopment Project Area (“Mission Bay South”).
11. Pursuant to the Plan and Plan Documents, including the DRDAP, the Developer has submitted a Combined Basic Concept and Schematic Design for a commercial building on Block 29, dated January 24, 2012 (“Schematic Design”). The commercial building consists of 327,000 gross square feet, including approximately 15,000 square feet of retail.
12. Agency staff has reviewed the Schematic Design for purposes of compliance with CEQA and the State CEQA Guidelines.
13. The FSEIR is a program EIR under CEQA Guidelines Section 15168 and a redevelopment plan EIR under CEQA Guidelines Section 15180. Approval of the Schematic Design is an undertaking pursuant to and in furtherance of the Plan in conformance with CEQA Section 15180 (“Implementing Action”).
14. Agency staff, in making the necessary findings for the Implementing Action contemplated herein, considered and reviewed the FSEIR, and has made documents related to the Implementing Action and the FSEIR files available for review by the Agency Commission and the public, and these files are part of the record before the Agency Commission.
15. The FSEIR findings and statement of overriding considerations adopted in accordance with CEQA by the Agency Commission by Resolution No. 183-98, dated September 17, 1998, reflected the independent judgment and analysis of the Agency, were and remain adequate, accurate and objective and were prepared and adopted following the procedures required by CEQA, and the findings in said resolutions are incorporated herein by reference as applicable to the Implementing Action.
16. Agency staff has reviewed the Schematic Design submitted by Salesforce, finds it acceptable and recommends approval thereof, subject to the resolution of certain conditions.

## **FINDINGS**

The Agency finds and determines that the Schematic Design submission is an Implementing Action within the scope of the Project analyzed in the FSEIR and requires no additional environmental review pursuant to State CEQA Guidelines Sections 15180, 15162 and 15163 for the following reasons:

1. The Implementing Action is within the scope of the Project analyzed in the FSEIR and no major revisions are required due to the involvement of new significant



environmental effects or a substantial increase in the severity of significant effects previously identified in the FSEIR.

2. No substantial changes have occurred with respect to the circumstances under which the Project analyzed in the FSEIR was undertaken that would require major revisions to the FSEIR due to the involvement of new significant environmental effects, or a substantial increase in the severity of effects identified in the FSEIR.
3. No new information of substantial importance to the Project analyzed in the FSEIR has become available which would indicate that (a) the Implementing Action will have significant effects not discussed in the FSEIR; (b) significant environmental effects will be substantially more severe; (c) mitigation measures or alternatives found not feasible which would reduce one or more significant effects have become feasible; or (d) mitigation measures or alternatives which are considerably different from those in the FSEIR will substantially reduce one or more significant effects on the environment.

## **RESOLUTION**

**ACCORDINGLY, IT IS RESOLVED** by the Redevelopment Agency of the City and County of San Francisco that (1) it has reviewed and considered the FSEIR findings and statement of overriding considerations and hereby adopts the CEQA findings set forth in Resolution No. 183-98 incorporated herein and those set forth above; and (2) that the Combined Basic Concept and Schematic Design for the commercial building on Block 29 is hereby approved pursuant to the Mission Bay South Owner Participation Agreement with FOCIL-MB, subject to the following conditions:

1. The building materials, colors, finishes, architectural detailing, and landscape design may be refined, in consultation with Agency staff, during Design Development phase. A material and color mock-up of sufficient size to be built on the construction site during an early phase of construction shall be prepared for Agency staff review to ensure consistency with approved plans.
2. The designs for the three “pavilions” located in the Town Square shall be submitted to the Agency for review and approval as part of the Design Development phase for the Town Square and/or the Design Development phase for the building on Block 32. Two of the pavilions shall be designed by architects or artists other than the campus architect, Legorreta + Legorreta.
3. A plan detailing the final design, size and operational standards of the outdoor electronic screen shall be submitted for review and approval as part of the Design Development phase of the building on Block 31. The operational standards for the outdoor electronic screen shall also be reviewed by the Citizens Advisory Committee.
4. The design of the exterior play area serving the childcare center on Block 32 shall be submitted for review and approval as part of the Design Development phase for the building on Block 32. Of particular interest to the Agency will be how the exterior play area meets the publicly-accessible open space along the vara and the need to ensure a pedestrian-friendly treatment to any necessary enclosures for the play area.



5. The design of the water feature in the Town Square and the base of the pylons (including the details of the relationship between these water features and the pylons) shall be refined during the Design Development phase for the Town Square.
6. The design of all wind screens, sunshades, louvers, canopies and other architectural details require approval as part of the Design Development phase for all blocks.
7. Cooking exhaust shafts extending to the roof shall be included in retail spaces designated for restaurants as part of the Design Development submittals.
8. Proposals for public art (in addition to the pavilions described in condition #2 above) shall be submitted to the Agency for review.
9. The configuration of the photovoltaic panels, rooftop mechanical equipment and penthouses shall be further refined during the Design Development phase.
10. A signage master plan for all Salesforce signage must be submitted concurrent with the Design Development application for the first building on Blocks 29 – 32. No corporate, wayfinding, retail or other signage implied in the Basic Concept and Schematic Design applications is approved as part of this action. All signage shall be consistent with the Mission Bay South Signage Master Plan.
11. All improvements to the public right-of-way surrounding the Salesforce campus shall be consistent with the Mission Bay South Streetscape Master Plan, with the exception of the Arbutus Marina tree planting pattern and the paving material on Block 29, as shown in the Town Square and Site Landscape submittal.
12. The amount and/or width of curb cuts serving the parking garage and loading zones shall be refined during the Design Development phase and shall be consistent with any relevant City and County of San Francisco standards. Of particular interest to the Agency is avoiding excessive interruption to the pedestrian path of travel and to the public realm.
13. The Commission's approval of the Schematic Designs for the buildings on Blocks 29 - 32 is contingent on the Planning Commission's design review approval of the buildings consistent with Planning Code Section 321.

**APPROVED AS TO FORM:**

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James B. Morales  
Agency General Counsel



## **RESOLUTION NO. 11-2012**

### **CONDITIONALLY APPROVING THE COMBINED BASIC CONCEPT AND SCHEMATIC DESIGN FOR BLOCK 30 OF THE NEW SALESFORCE.COM CAMPUS IN MISSION BAY (BLOCK 29 – 32) IN THE MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA, PURSUANT TO THE OWNER PARTICIPATION AGREEMENT WITH FOCIL-MB, LLC, AND ADOPTING ENVIRONMENTAL FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA**

#### **BASIS FOR RESOLUTION**

1. On September 17, 1998, by Resolution No. 190-98, the Commission of the Redevelopment Agency of the City and County of San Francisco (“Agency Commission”) approved the Redevelopment Plan for the Mission Bay South Redevelopment Project Area (“Plan”). On the same date, the Agency Commission adopted related documents, including Resolution No. 193-98 authorizing execution of an Owner Participation Agreement (“South OPA”) and related documents between Catellus Development Corporation, a Delaware corporation, and the Agency. On November 2, 1998, the San Francisco Board of Supervisors (“Board of Supervisors”), by Ordinance No. 335-98, adopted the Plan. The Plan and its implementing documents, as defined in the Plan, constitute the “Plan Documents.”
2. On September 17, 1998, the Agency Commission adopted Resolution No. 182-98 which certified the Final Subsequent Environmental Impact Report (“FSEIR”) as a program EIR for Mission Bay North and South pursuant to the California Environmental Quality Act (“CEQA”) and State CEQA Guidelines Sections 15168 (Program EIR) and 15180 (Redevelopment Plan EIR). On the same date, the Agency Commission also adopted Resolution No. 183-98, which adopted environmental findings (and a statement of overriding considerations), in connection with the approval of the Plan and other Mission Bay project approvals (the “Mission Bay Project”). The San Francisco Planning Commission (“Planning Commission”) certified the FSEIR by Resolution No. 14696 on the same date. On October 19, 1998, the Board of Supervisors adopted Motion No. 98-132 affirming certification of the FSEIR by the Planning Commission and the Agency, and Resolution No. 854-98 adopting environmental findings and a statement of overriding considerations for the Mission Bay Project.
3. Subsequent to certification of the FSEIR, the Agency has issued several addenda to the FSEIR, as described in Recital 4 below. The addenda do not identify any substantial new information or new significant impacts or a substantial increase in the severity of previously identified significant effects that alter the conclusions reached in the FSEIR. Hereinafter, the Final Subsequent Environmental Impact Report, including any addenda thereto, shall be collectively referred to as the “FSEIR.”



4. The first addendum, dated March 21, 2000, analyzed temporary parking lots to serve the ballpark. The second addendum, dated June 20, 2001, analyzed revisions to 7th Street bike lanes and relocation of a storm drain outfall provided for in the Mission Bay South Infrastructure Plan, a component of the South OPA. The third addendum, dated February 10, 2004, analyzed revisions to the Mission Bay South Design for Development with respect to the maximum allowable number of towers, tower separation and require step-backs. The fourth addendum, dated March 9, 2004, analyzed the Mission Bay South Design for Development with respect to the permitted maximum number of parking spaces for bio-technical and similar research facilities and the North OPA with respect to changes to reflect a reduction in permitted commercial development and associated parking. The fifth addendum, dated October 4, 2005, analyzed the UCSF proposal to establish a Phase I 400-bed hospital in Mission Bay South on Blocks 36-39 and X-3. The sixth addendum, dated September 10, 2008, addressed revisions of the UCSF Medical Center at Mission Bay. The seventh addendum, dated January 7, 2010, addressed the construction of a Public Safety Building on Block 8 in Mission Bay South.
5. On or about June 28, 2011, a bill providing for the dissolution on February 1, 2012 of all redevelopment agencies was adopted by the California legislature and signed by the Governor (the “dissolution legislation” or “AB 26”). By its terms, the dissolution legislation became effective immediately. The dissolution legislation requires agencies and “successor agencies” to honor “enforceable obligations,” as defined in Section 34167 of the legislation. The definition of “enforceable obligation” includes “[a]ny legally binding and enforceable agreement or contract that is not otherwise void as violating the debt limit or public policy.” The South OPA and its attachments is such a contract.
6. Pursuant to AB 26, on February 1, 2012, the Agency will be dissolved. The City of San Francisco as the successor agency will automatically assume all of the Agency’s enforceable obligations. In Mission Bay, these include the Plan and the Plan Documents. On January 24, 2012, the Board of Supervisors adopted a resolution related to the Agency’s dissolution which affirmed the City’s commitment to Mission Bay and other major approved development projects going forward.
7. The Plan and the Plan Documents, including the Design Review and Document Approval Procedure, designated as Attachment G to the South OPA (“DRDAP”), provide that development proposals in Mission Bay South will be reviewed and processed by the Agency in “Major Phases,” as defined in and consistent with the Plan and the Plan Documents. Submission of design plans and documents for any specific building must be consistent with the requirements established for each Major Phase. The DRDAP sets forth the review and approval process for Major Phases and Projects. The obligation of the Agency to review and approve Major Phases and Projects, including Schematic Designs, if they are consistent with the requirements for each Major Phase is an “enforceable obligation” within the meaning of the dissolution legislation.
8. As permitted under the South OPA, Alexandria Real Estate Equities (“ARE”) purchased Blocks 26 - 34 from FOCIL-MB.



9. As permitted under the South OPA, salesforce.com, inc. (“Developer” or “Salesforce”) purchased Block 30, in Mission Bay South, from ARE. Developer will be bound by all relevant terms of the South OPA and related agreements, including the requirements of the equal opportunity program and design review process.
10. On September 20, 2011, by Resolution No. 97-2011, the Agency Commission approved the Developer’s Major Phase Application for Blocks 26-34 in the Mission Bay South Redevelopment Project Area (“Mission Bay South”).
11. Pursuant to the Plan and Plan Documents, including the DRDAP, the Developer has submitted a Combined Basic Concept and Schematic Design for a commercial building on Block 30, dated January 24, 2012 (“Schematic Design”). The commercial building consists of approximately 184,900 gross square feet and includes approximately 11,000 square feet of retail and restaurant space and a proposed fitness center.
12. Agency staff has reviewed the Schematic Design for purposes of compliance with CEQA and the State CEQA Guidelines.
13. The FSEIR is a program EIR under CEQA Guidelines Section 15168 and a redevelopment plan EIR under CEQA Guidelines Section 15180. Approval of the Schematic Design is an undertaking pursuant to and in furtherance of the Plan in conformance with CEQA Section 15180 (“Implementing Action”).
14. Agency staff, in making the necessary findings for the Implementing Action contemplated herein, considered and reviewed the FSEIR, and has made documents related to the Implementing Action and the FSEIR files available for review by the Agency Commission and the public, and these files are part of the record before the Agency Commission.
15. The FSEIR findings and statement of overriding considerations adopted in accordance with CEQA by the Agency Commission by Resolution No. 183-98, dated September 17, 1998, reflected the independent judgment and analysis of the Agency, were and remain adequate, accurate and objective and were prepared and adopted following the procedures required by CEQA, and the findings in said resolutions are incorporated herein by reference as applicable to the Implementing Action.
16. Agency staff has reviewed the Schematic Design submitted by Salesforce, finds it acceptable and recommends approval thereof, subject to the resolution of certain conditions.

## **FINDINGS**

The Agency finds and determines that the Schematic Design submission is an Implementing Action within the scope of the Project analyzed in the FSEIR and requires no additional environmental review pursuant to State CEQA Guidelines Sections 15180, 15162 and 15163 for the following reasons:

1. The Implementing Action is within the scope of the Project analyzed in the FSEIR and no major revisions are required due to the involvement of new significant



environmental effects or a substantial increase in the severity of significant effects previously identified in the FSEIR.

2. No substantial changes have occurred with respect to the circumstances under which the Project analyzed in the FSEIR was undertaken that would require major revisions to the FSEIR due to the involvement of new significant environmental effects, or a substantial increase in the severity of effects identified in the FSEIR.
3. No new information of substantial importance to the Project analyzed in the FSEIR has become available which would indicate that (a) the Implementing Action will have significant effects not discussed in the FSEIR; (b) significant environmental effects will be substantially more severe; (c) mitigation measures or alternatives found not feasible which would reduce one or more significant effects have become feasible; or (d) mitigation measures or alternatives which are considerably different from those in the FSEIR will substantially reduce one or more significant effects on the environment.

## **RESOLUTION**

**ACCORDINGLY, IT IS RESOLVED** by the Redevelopment Agency of the City and County of San Francisco that (1) it has reviewed and considered the FSEIR findings and statement of overriding considerations and hereby adopts the CEQA findings set forth in Resolution No. 183-98 incorporated herein and those set forth above; and (2) that the Combined Basic Concept and Schematic Design for the commercial building on Block 30 is hereby approved pursuant to the Mission Bay South Owner Participation Agreement with FOCIL-MB, subject to the following conditions:

1. The building materials, colors, finishes, architectural detailing, and landscape design may be refined, in consultation with Agency staff, during Design Development phase. A material and color mock-up of sufficient size to be built on the construction site during an early phase of construction shall be prepared for Agency staff review to ensure consistency with approved plans.
2. The designs for the three “pavilions” located in the Town Square shall be submitted to the Agency for review and approval as part of the Design Development phase for the Town Square and/or the Design Development phase for the building on Block 32. Two of the pavilions shall be designed by architects or artists other than the campus architect, Legorreta + Legorreta.
3. A plan detailing the final design, size and operational standards of the outdoor electronic screen shall be submitted for review and approval as part of the Design Development phase of the building on Block 31. The operational standards for the outdoor electronic screen shall also be reviewed by the Citizens Advisory Committee.
4. The design of the exterior play area serving the childcare center on Block 32 shall be submitted for review and approval as part of the Design Development phase for the building on Block 32. Of particular interest to the Agency will be how the exterior play area meets the publicly-accessible open space along the vara and the need to ensure a pedestrian-friendly treatment to any necessary enclosures for the play area.



5. The design of the water feature in the Town Square and the base of the pylons (including the details of the relationship between these water features and the pylons) shall be refined during the Design Development phase for the Town Square.
6. The design of all wind screens, sunshades, louvers, canopies and other architectural details require approval as part of the Design Development phase for all blocks.
7. Cooking exhaust shafts extending to the roof shall be included in retail spaces designated for restaurants as part of the Design Development submittals.
8. Proposals for public art (in addition to the pavilions described in condition #2 above) shall be submitted to the Agency for review.
9. The configuration of the photovoltaic panels, rooftop mechanical equipment and penthouses shall be further refined during the Design Development phase.
10. A signage master plan for all Salesforce signage must be submitted concurrent with the Design Development application for the first building on Blocks 29 – 32. No corporate, wayfinding, retail or other signage implied in the Basic Concept and Schematic Design applications is approved as part of this action. All signage shall be consistent with the Mission Bay South Signage Master Plan.
11. All improvements to the public right-of-way surrounding the Salesforce campus shall be consistent with the Mission Bay South Streetscape Master Plan, with the exception of the Arbutus Marina tree planting pattern and the paving material on Block 29, as shown in the Town Square and Site Landscape submittal.
12. The amount and/or width of curb cuts serving the parking garage and loading zones shall be refined during the Design Development phase and shall be consistent with any relevant City and County of San Francisco standards. Of particular interest to the Agency is avoiding excessive interruption to the pedestrian path of travel and to the public realm.
13. The Commission's approval of the Schematic Designs for the buildings on Blocks 29 - 32 is contingent on the Planning Commission's design review approval of the buildings consistent with Planning Code Section 321.

**APPROVED AS TO FORM:**

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James B. Morales  
Agency General Counsel



## **RESOLUTION NO. 12-2012**

### **CONDITIONALLY APPROVING THE COMBINED BASIC CONCEPT AND SCHEMATIC DESIGN FOR BLOCK 31 OF THE NEW SALESFORCE.COM CAMPUS IN MISSION BAY (BLOCK 29 – 32) IN THE MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA, PURSUANT TO THE OWNER PARTICIPATION AGREEMENT WITH FOCIL-MB, LLC, AND ADOPTING ENVIRONMENTAL FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA**

#### **BASIS FOR RESOLUTION**

1. On September 17, 1998, by Resolution No. 190-98, the Commission of the Redevelopment Agency of the City and County of San Francisco (“Agency Commission”) approved the Redevelopment Plan for the Mission Bay South Redevelopment Project Area (“Plan”). On the same date, the Agency Commission adopted related documents, including Resolution No. 193-98 authorizing execution of an Owner Participation Agreement (“South OPA”) and related documents between Catellus Development Corporation, a Delaware corporation, and the Agency. On November 2, 1998, the San Francisco Board of Supervisors (“Board of Supervisors”), by Ordinance No. 335-98, adopted the Plan. The Plan and its implementing documents, as defined in the Plan, constitute the “Plan Documents.”
2. On September 17, 1998, the Agency Commission adopted Resolution No. 182-98 which certified the Final Subsequent Environmental Impact Report (“FSEIR”) as a program EIR for Mission Bay North and South pursuant to the California Environmental Quality Act (“CEQA”) and State CEQA Guidelines Sections 15168 (Program EIR) and 15180 (Redevelopment Plan EIR). On the same date, the Agency Commission also adopted Resolution No. 183-98, which adopted environmental findings (and a statement of overriding considerations), in connection with the approval of the Plan and other Mission Bay project approvals (the “Mission Bay Project”). The San Francisco Planning Commission (“Planning Commission”) certified the FSEIR by Resolution No. 14696 on the same date. On October 19, 1998, the Board of Supervisors adopted Motion No. 98-132 affirming certification of the FSEIR by the Planning Commission and the Agency, and Resolution No. 854-98 adopting environmental findings and a statement of overriding considerations for the Mission Bay Project.
3. Subsequent to certification of the FSEIR, the Agency has issued several addenda to the FSEIR, as described in Recital 4 below. The addenda do not identify any substantial new information or new significant impacts or a substantial increase in the severity of previously identified significant effects that alter the conclusions reached in the FSEIR. Hereinafter, the Final Subsequent Environmental Impact Report, including any addenda thereto, shall be collectively referred to as the “FSEIR.”



4. The first addendum, dated March 21, 2000, analyzed temporary parking lots to serve the ballpark. The second addendum, dated June 20, 2001, analyzed revisions to 7th Street bike lanes and relocation of a storm drain outfall provided for in the Mission Bay South Infrastructure Plan, a component of the South OPA. The third addendum, dated February 10, 2004, analyzed revisions to the Mission Bay South Design for Development with respect to the maximum allowable number of towers, tower separation and require step-backs. The fourth addendum, dated March 9, 2004, analyzed the Mission Bay South Design for Development with respect to the permitted maximum number of parking spaces for bio-technical and similar research facilities and the North OPA with respect to changes to reflect a reduction in permitted commercial development and associated parking. The fifth addendum, dated October 4, 2005, analyzed the UCSF proposal to establish a Phase I 400-bed hospital in Mission Bay South on Blocks 36-39 and X-3. The sixth addendum, dated September 10, 2008, addressed revisions of the UCSF Medical Center at Mission Bay. The seventh addendum, dated January 7, 2010, addressed the construction of a Public Safety Building on Block 8 in Mission Bay South.
5. On or about June 28, 2011, a bill providing for the dissolution on February 1, 2012 of all redevelopment agencies was adopted by the California legislature and signed by the Governor (the “dissolution legislation” or “AB 26”). By its terms, the dissolution legislation became effective immediately. The dissolution legislation requires agencies and “successor agencies” to honor “enforceable obligations,” as defined in Section 34167 of the legislation. The definition of “enforceable obligation” includes “[a]ny legally binding and enforceable agreement or contract that is not otherwise void as violating the debt limit or public policy.” The South OPA and its attachments is such a contract.
6. Pursuant to AB 26, on February 1, 2012, the Agency will be dissolved. The City of San Francisco as the successor agency will automatically assume all of the Agency’s enforceable obligations. In Mission Bay, these include the Plan and the Plan Documents. On January 24, 2012, the Board of Supervisors adopted a resolution related to the Agency’s dissolution which affirmed the City’s commitment to Mission Bay and other major approved development projects going forward.
7. The Plan and the Plan Documents, including the Design Review and Document Approval Procedure, designated as Attachment G to the South OPA (“DRDAP”), provide that development proposals in Mission Bay South will be reviewed and processed by the Agency in “Major Phases,” as defined in and consistent with the Plan and the Plan Documents. Submission of design plans and documents for any specific building must be consistent with the requirements established for each Major Phase. The DRDAP sets forth the review and approval process for Major Phases and Projects. The obligation of the Agency to review and approve Major Phases and Projects, including Schematic Designs, if they are consistent with the requirements for each Major Phase is an “enforceable obligation” within the meaning of the dissolution legislation.
8. As permitted under the South OPA, Alexandria Real Estate Equities (“ARE”) purchased Blocks 26 - 34 from FOCIL-MB.



9. As permitted under the South OPA, salesforce.com, inc. (“Developer” or “Salesforce”) purchased Block 31, in Mission Bay South, from ARE. Developer will be bound by all relevant terms of the South OPA and related agreements, including the requirements of the equal opportunity program and design review process.
10. On September 20, 2011, by Resolution No. 97-2011, the Agency Commission approved the Developer’s Major Phase Application for Blocks 26-34 in the Mission Bay South Redevelopment Project Area (“Mission Bay South”).
11. Pursuant to the Plan and Plan Documents, including the DRDAP, the Developer has submitted a Combined Basic Concept and Schematic Design for a commercial building on Block 31, dated January 24, 2012 (“Schematic Design”). The commercial building consists of approximately 443,600 square feet and contains approximately 19,000 square feet of ground-floor retail.
12. Agency staff has reviewed the Schematic Design for purposes of compliance with CEQA and the State CEQA Guidelines.
13. The FSEIR is a program EIR under CEQA Guidelines Section 15168 and a redevelopment plan EIR under CEQA Guidelines Section 15180. Approval of the Schematic Design is an undertaking pursuant to and in furtherance of the Plan in conformance with CEQA Section 15180 (“Implementing Action”).
14. Agency staff, in making the necessary findings for the Implementing Action contemplated herein, considered and reviewed the FSEIR, and has made documents related to the Implementing Action and the FSEIR files available for review by the Agency Commission and the public, and these files are part of the record before the Agency Commission.
15. The FSEIR findings and statement of overriding considerations adopted in accordance with CEQA by the Agency Commission by Resolution No. 183-98, dated September 17, 1998, reflected the independent judgment and analysis of the Agency, were and remain adequate, accurate and objective and were prepared and adopted following the procedures required by CEQA, and the findings in said resolutions are incorporated herein by reference as applicable to the Implementing Action.
16. Agency staff has reviewed the Schematic Design submitted by Salesforce, finds it acceptable and recommends approval thereof, subject to the resolution of certain conditions.

## **FINDINGS**

The Agency finds and determines that the Schematic Design submission is an Implementing Action within the scope of the Project analyzed in the FSEIR and requires no additional environmental review pursuant to State CEQA Guidelines Sections 15180, 15162 and 15163 for the following reasons:

1. The Implementing Action is within the scope of the Project analyzed in the FSEIR and no major revisions are required due to the involvement of new significant



environmental effects or a substantial increase in the severity of significant effects previously identified in the FSEIR.

2. No substantial changes have occurred with respect to the circumstances under which the Project analyzed in the FSEIR was undertaken that would require major revisions to the FSEIR due to the involvement of new significant environmental effects, or a substantial increase in the severity of effects identified in the FSEIR.
3. No new information of substantial importance to the Project analyzed in the FSEIR has become available which would indicate that (a) the Implementing Action will have significant effects not discussed in the FSEIR; (b) significant environmental effects will be substantially more severe; (c) mitigation measures or alternatives found not feasible which would reduce one or more significant effects have become feasible; or (d) mitigation measures or alternatives which are considerably different from those in the FSEIR will substantially reduce one or more significant effects on the environment.

## **RESOLUTION**

**ACCORDINGLY, IT IS RESOLVED** by the Redevelopment Agency of the City and County of San Francisco that (1) it has reviewed and considered the FSEIR findings and statement of overriding considerations and hereby adopts the CEQA findings set forth in Resolution No. 183-98 incorporated herein and those set forth above; and (2) that the Combined Basic Concept and Schematic Design for the commercial building on Block 31 is hereby approved pursuant to the Mission Bay South Owner Participation Agreement with FOCIL-MB, subject to the following conditions:

1. The building materials, colors, finishes, architectural detailing, and landscape design may be refined, in consultation with Agency staff, during Design Development phase. A material and color mock-up of sufficient size to be built on the construction site during an early phase of construction shall be prepared for Agency staff review to ensure consistency with approved plans.
2. The designs for the three “pavilions” located in the Town Square shall be submitted to the Agency for review and approval as part of the Design Development phase for the Town Square and/or the Design Development phase for the building on Block 32. Two of the pavilions shall be designed by architects or artists other than the campus architect, Legorreta + Legorreta.
3. A plan detailing the final design, size and operational standards of the outdoor electronic screen shall be submitted for review and approval as part of the Design Development phase of the building on Block 31. The operational standards for the outdoor electronic screen shall also be reviewed by the Citizens Advisory Committee.
4. The design of the exterior play area serving the childcare center on Block 32 shall be submitted for review and approval as part of the Design Development phase for the building on Block 32. Of particular interest to the Agency will be how the exterior play area meets the publicly-accessible open space along the vara and the need to ensure a pedestrian-friendly treatment to any necessary enclosures for the play area.



5. The design of the water feature in the Town Square and the base of the pylons (including the details of the relationship between these water features and the pylons) shall be refined during the Design Development phase for the Town Square.
6. The design of all wind screens, sunshades, louvers, canopies and other architectural details require approval as part of the Design Development phase for all blocks.
7. Cooking exhaust shafts extending to the roof shall be included in retail spaces designated for restaurants as part of the Design Development submittals.
8. Proposals for public art (in addition to the pavilions described in condition #2 above) shall be submitted to the Agency for review.
9. The configuration of the photovoltaic panels, rooftop mechanical equipment and penthouses shall be further refined during the Design Development phase.
10. A signage master plan for all Salesforce signage must be submitted concurrent with the Design Development application for the first building on Blocks 29 – 32. No corporate, wayfinding, retail or other signage implied in the Basic Concept and Schematic Design applications is approved as part of this action. All signage shall be consistent with the Mission Bay South Signage Master Plan.
11. All improvements to the public right-of-way surrounding the Salesforce campus shall be consistent with the Mission Bay South Streetscape Master Plan, with the exception of the Arbutus Marina tree planting pattern and the paving material on Block 29, as shown in the Town Square and Site Landscape submittal.
12. The amount and/or width of curb cuts serving the parking garage and loading zones shall be refined during the Design Development phase and shall be consistent with any relevant City and County of San Francisco standards. Of particular interest to the Agency is avoiding excessive interruption to the pedestrian path of travel and to the public realm.
13. The Commission's approval of the Schematic Designs for the buildings on Blocks 29 - 32 is contingent on the Planning Commission's design review approval of the buildings consistent with Planning Code Section 321.

**APPROVED AS TO FORM:**

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James B. Morales  
Agency General Counsel



## **RESOLUTION NO. 13-2012**

### **CONDITIONALLY APPROVING THE COMBINED BASIC CONCEPT AND SCHEMATIC DESIGN FOR BLOCK 32 OF THE NEW SALESFORCE.COM CAMPUS IN MISSION BAY (BLOCK 29 – 32) IN THE MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA, PURSUANT TO THE OWNER PARTICIPATION AGREEMENT WITH FOCIL-MB, LLC, AND ADOPTING ENVIRONMENTAL FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA**

#### **BASIS FOR RESOLUTION**

1. On September 17, 1998, by Resolution No. 190-98, the Commission of the Redevelopment Agency of the City and County of San Francisco (“Agency Commission”) approved the Redevelopment Plan for the Mission Bay South Redevelopment Project Area (“Plan”). On the same date, the Agency Commission adopted related documents, including Resolution No. 193-98 authorizing execution of an Owner Participation Agreement (“South OPA”) and related documents between Catellus Development Corporation, a Delaware corporation, and the Agency. On November 2, 1998, the San Francisco Board of Supervisors (“Board of Supervisors”), by Ordinance No. 335-98, adopted the Plan. The Plan and its implementing documents, as defined in the Plan, constitute the “Plan Documents.”
2. On September 17, 1998, the Agency Commission adopted Resolution No. 182-98 which certified the Final Subsequent Environmental Impact Report (“FSEIR”) as a program EIR for Mission Bay North and South pursuant to the California Environmental Quality Act (“CEQA”) and State CEQA Guidelines Sections 15168 (Program EIR) and 15180 (Redevelopment Plan EIR). On the same date, the Agency Commission also adopted Resolution No. 183-98, which adopted environmental findings (and a statement of overriding considerations), in connection with the approval of the Plan and other Mission Bay project approvals (the “Mission Bay Project”). The San Francisco Planning Commission (“Planning Commission”) certified the FSEIR by Resolution No. 14696 on the same date. On October 19, 1998, the Board of Supervisors adopted Motion No. 98-132 affirming certification of the FSEIR by the Planning Commission and the Agency, and Resolution No. 854-98 adopting environmental findings and a statement of overriding considerations for the Mission Bay Project.
3. Subsequent to certification of the FSEIR, the Agency has issued several addenda to the FSEIR, as described in Recital 4 below. The addenda do not identify any substantial new information or new significant impacts or a substantial increase in the severity of previously identified significant effects that alter the conclusions reached in the FSEIR. Hereinafter, the Final Subsequent Environmental Impact Report, including any addenda thereto, shall be collectively referred to as the “FSEIR.”



4. The first addendum, dated March 21, 2000, analyzed temporary parking lots to serve the ballpark. The second addendum, dated June 20, 2001, analyzed revisions to 7th Street bike lanes and relocation of a storm drain outfall provided for in the Mission Bay South Infrastructure Plan, a component of the South OPA. The third addendum, dated February 10, 2004, analyzed revisions to the Mission Bay South Design for Development with respect to the maximum allowable number of towers, tower separation and require step-backs. The fourth addendum, dated March 9, 2004, analyzed the Mission Bay South Design for Development with respect to the permitted maximum number of parking spaces for bio-technical and similar research facilities and the North OPA with respect to changes to reflect a reduction in permitted commercial development and associated parking. The fifth addendum, dated October 4, 2005, analyzed the UCSF proposal to establish a Phase I 400-bed hospital in Mission Bay South on Blocks 36-39 and X-3. The sixth addendum, dated September 10, 2008, addressed revisions of the UCSF Medical Center at Mission Bay. The seventh addendum, dated January 7, 2010, addressed the construction of a Public Safety Building on Block 8 in Mission Bay South.
5. On or about June 28, 2011, a bill providing for the dissolution on February 1, 2012 of all redevelopment agencies was adopted by the California legislature and signed by the Governor (the “dissolution legislation” or “AB 26”). By its terms, the dissolution legislation became effective immediately. The dissolution legislation requires agencies and “successor agencies” to honor “enforceable obligations,” as defined in Section 34167 of the legislation. The definition of “enforceable obligation” includes “[a]ny legally binding and enforceable agreement or contract that is not otherwise void as violating the debt limit or public policy.” The South OPA and its attachments is such a contract.
6. Pursuant to AB 26, on February 1, 2012, the Agency will be dissolved. The City of San Francisco as the successor agency will automatically assume all of the Agency’s enforceable obligations. In Mission Bay, these include the Plan and the Plan Documents. On January 24, 2012, the Board of Supervisors adopted a resolution related to the Agency’s dissolution which affirmed the City’s commitment to Mission Bay and other major approved development projects going forward.
7. The Plan and the Plan Documents, including the Design Review and Document Approval Procedure, designated as Attachment G to the South OPA (“DRDAP”), provide that development proposals in Mission Bay South will be reviewed and processed by the Agency in “Major Phases,” as defined in and consistent with the Plan and the Plan Documents. Submission of design plans and documents for any specific building must be consistent with the requirements established for each Major Phase. The DRDAP sets forth the review and approval process for Major Phases and Projects. The obligation of the Agency to review and approve Major Phases and Projects, including Schematic Designs, if they are consistent with the requirements for each Major Phase is an “enforceable obligation” within the meaning of the dissolution legislation.
8. As permitted under the South OPA, Alexandria Real Estate Equities (“ARE”) purchased Blocks 26 - 34 from FOCIL-MB.



9. As permitted under the South OPA, salesforce.com, inc. (“Developer” or “Salesforce”) purchased Block 32, in Mission Bay South, from ARE. Developer will be bound by all relevant terms of the South OPA and related agreements, including the requirements of the equal opportunity program and design review process.
10. On September 20, 2011, by Resolution No. 97-2011, the Agency Commission approved the Developer’s Major Phase Application for Blocks 26-34 in the Mission Bay South Redevelopment Project Area (“Mission Bay South”).
11. Pursuant to the Plan and Plan Documents, including the DRDAP, the Developer has submitted a Combined Basic Concept and Schematic Design for a commercial building on Block 32, dated January 24, 2012 (“Schematic Design”). The commercial building consists of approximately 223,000 gross square feet, and includes 3,600 square feet of retail and nearly 22,000 square feet of indoor childcare space.
12. Agency staff has reviewed the Schematic Design for purposes of compliance with CEQA and the State CEQA Guidelines.
13. The FSEIR is a program EIR under CEQA Guidelines Section 15168 and a redevelopment plan EIR under CEQA Guidelines Section 15180. Approval of the Schematic Design is an undertaking pursuant to and in furtherance of the Plan in conformance with CEQA Section 15180 (“Implementing Action”).
14. Agency staff, in making the necessary findings for the Implementing Action contemplated herein, considered and reviewed the FSEIR, and has made documents related to the Implementing Action and the FSEIR files available for review by the Agency Commission and the public, and these files are part of the record before the Agency Commission.
15. The FSEIR findings and statement of overriding considerations adopted in accordance with CEQA by the Agency Commission by Resolution No. 183-98, dated September 17, 1998, reflected the independent judgment and analysis of the Agency, were and remain adequate, accurate and objective and were prepared and adopted following the procedures required by CEQA, and the findings in said resolutions are incorporated herein by reference as applicable to the Implementing Action.
16. Agency staff has reviewed the Schematic Design submitted by Salesforce, finds it acceptable and recommends approval thereof, subject to the resolution of certain conditions.

## **FINDINGS**

The Agency finds and determines that the Schematic Design submission is an Implementing Action within the scope of the Project analyzed in the FSEIR and requires no additional environmental review pursuant to State CEQA Guidelines Sections 15180, 15162 and 15163 for the following reasons:

1. The Implementing Action is within the scope of the Project analyzed in the FSEIR and no major revisions are required due to the involvement of new significant



environmental effects or a substantial increase in the severity of significant effects previously identified in the FSEIR.

2. No substantial changes have occurred with respect to the circumstances under which the Project analyzed in the FSEIR was undertaken that would require major revisions to the FSEIR due to the involvement of new significant environmental effects, or a substantial increase in the severity of effects identified in the FSEIR.
3. No new information of substantial importance to the Project analyzed in the FSEIR has become available which would indicate that (a) the Implementing Action will have significant effects not discussed in the FSEIR; (b) significant environmental effects will be substantially more severe; (c) mitigation measures or alternatives found not feasible which would reduce one or more significant effects have become feasible; or (d) mitigation measures or alternatives which are considerably different from those in the FSEIR will substantially reduce one or more significant effects on the environment.

## **RESOLUTION**

**ACCORDINGLY, IT IS RESOLVED** by the Redevelopment Agency of the City and County of San Francisco that (1) it has reviewed and considered the FSEIR findings and statement of overriding considerations and hereby adopts the CEQA findings set forth in Resolution No. 183-98 incorporated herein and those set forth above; and (2) that the Combined Basic Concept and Schematic Design for the commercial building on Block 32 is hereby approved pursuant to the Mission Bay South Owner Participation Agreement with FOCIL-MB, subject to the following conditions:

1. The building materials, colors, finishes, architectural detailing, and landscape design may be refined, in consultation with Agency staff, during Design Development phase. A material and color mock-up of sufficient size to be built on the construction site during an early phase of construction shall be prepared for Agency staff review to ensure consistency with approved plans.
2. The designs for the three “pavilions” located in the Town Square shall be submitted to the Agency for review and approval as part of the Design Development phase for the Town Square and/or the Design Development phase for the building on Block 32. Two of the pavilions shall be designed by architects or artists other than the campus architect, Legorreta + Legorreta.
3. A plan detailing the final design, size and operational standards of the outdoor electronic screen shall be submitted for review and approval as part of the Design Development phase of the building on Block 31. The operational standards for the outdoor electronic screen shall also be reviewed by the Citizens Advisory Committee.
4. The design of the exterior play area serving the childcare center on Block 32 shall be submitted for review and approval as part of the Design Development phase for the building on Block 32. Of particular interest to the Agency will be how the exterior play area meets the publicly-accessible open space along the vara and the need to ensure a pedestrian-friendly treatment to any necessary enclosures for the play area.



5. The design of the water feature in the Town Square and the base of the pylons (including the details of the relationship between these water features and the pylons) shall be refined during the Design Development phase for the Town Square.
6. The design of all wind screens, sunshades, louvers, canopies and other architectural details require approval as part of the Design Development phase for all blocks.
7. Cooking exhaust shafts extending to the roof shall be included in retail spaces designated for restaurants as part of the Design Development submittals.
8. Proposals for public art (in addition to the pavilions described in condition #2 above) shall be submitted to the Agency for review.
9. The configuration of the photovoltaic panels, rooftop mechanical equipment and penthouses shall be further refined during the Design Development phase.
10. A signage master plan for all Salesforce signage must be submitted concurrent with the Design Development application for the first building on Blocks 29 – 32. No corporate, wayfinding, retail or other signage implied in the Basic Concept and Schematic Design applications is approved as part of this action. All signage shall be consistent with the Mission Bay South Signage Master Plan.
11. All improvements to the public right-of-way surrounding the Salesforce campus shall be consistent with the Mission Bay South Streetscape Master Plan, with the exception of the Arbutus Marina tree planting pattern and the paving material on Block 29, as shown in the Town Square and Site Landscape submittal.
12. The amount and/or width of curb cuts serving the parking garage and loading zones shall be refined during the Design Development phase and shall be consistent with any relevant City and County of San Francisco standards. Of particular interest to the Agency is avoiding excessive interruption to the pedestrian path of travel and to the public realm.
13. The Commission's approval of the Schematic Designs for the buildings on Blocks 29 - 32 is contingent on the Planning Commission's design review approval of the buildings consistent with Planning Code Section 321.

**APPROVED AS TO FORM:**

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James B. Morales  
Agency General Counsel



## **RESOLUTION NO. 14-2012**

### **CONDITIONALLY APPROVING THE COMBINED BASIC CONCEPT AND SCHEMATIC DESIGN FOR THE TOWN SQUARE AND SITE LANDSCAPE OF THE NEW SALESFORCE.COM CAMPUS IN MISSION BAY (BLOCK 29 – 32) IN THE MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA, PURSUANT TO THE OWNER PARTICIPATION AGREEMENT WITH FOCIL-MB, LLC, AND ADOPTING ENVIRONMENTAL FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA**

#### **BASIS FOR RESOLUTION**

1. On September 17, 1998, by Resolution No. 190-98, the Commission of the Redevelopment Agency of the City and County of San Francisco (“Agency Commission”) approved the Redevelopment Plan for the Mission Bay South Redevelopment Project Area (“Plan”). On the same date, the Agency Commission adopted related documents, including Resolution No. 193-98 authorizing execution of an Owner Participation Agreement (“South OPA”) and related documents between Catellus Development Corporation, a Delaware corporation, and the Agency. On November 2, 1998, the San Francisco Board of Supervisors (“Board of Supervisors”), by Ordinance No. 335-98, adopted the Plan. The Plan and its implementing documents, as defined in the Plan, constitute the “Plan Documents.”
2. On September 17, 1998, the Agency Commission adopted Resolution No. 182-98 which certified the Final Subsequent Environmental Impact Report (“FSEIR”) as a program EIR for Mission Bay North and South pursuant to the California Environmental Quality Act (“CEQA”) and State CEQA Guidelines Sections 15168 (Program EIR) and 15180 (Redevelopment Plan EIR). On the same date, the Agency Commission also adopted Resolution No. 183-98, which adopted environmental findings (and a statement of overriding considerations), in connection with the approval of the Plan and other Mission Bay project approvals (the “Mission Bay Project”). The San Francisco Planning Commission (“Planning Commission”) certified the FSEIR by Resolution No. 14696 on the same date. On October 19, 1998, the Board of Supervisors adopted Motion No. 98-132 affirming certification of the FSEIR by the Planning Commission and the Agency, and Resolution No. 854-98 adopting environmental findings and a statement of overriding considerations for the Mission Bay Project.
3. Subsequent to certification of the FSEIR, the Agency has issued several addenda to the FSEIR, as described in Recital 4 below. The addenda do not identify any substantial new information or new significant impacts or a substantial increase in the severity of previously identified significant effects that alter the conclusions reached in the FSEIR. Hereinafter, the Final Subsequent Environmental Impact Report, including any addenda thereto, shall be collectively referred to as the “FSEIR.”



4. The first addendum, dated March 21, 2000, analyzed temporary parking lots to serve the ballpark. The second addendum, dated June 20, 2001, analyzed revisions to 7th Street bike lanes and relocation of a storm drain outfall provided for in the Mission Bay South Infrastructure Plan, a component of the South OPA. The third addendum, dated February 10, 2004, analyzed revisions to the Mission Bay South Design for Development with respect to the maximum allowable number of towers, tower separation and require step-backs. The fourth addendum, dated March 9, 2004, analyzed the Mission Bay South Design for Development with respect to the permitted maximum number of parking spaces for bio-technical and similar research facilities and the North OPA with respect to changes to reflect a reduction in permitted commercial development and associated parking. The fifth addendum, dated October 4, 2005, analyzed the UCSF proposal to establish a Phase I 400-bed hospital in Mission Bay South on Blocks 36-39 and X-3. The sixth addendum, dated September 10, 2008, addressed revisions of the UCSF Medical Center at Mission Bay. The seventh addendum, dated January 7, 2010, addressed the construction of a Public Safety Building on Block 8 in Mission Bay South.
5. On or about June 28, 2011, a bill providing for the dissolution on February 1, 2012 of all redevelopment agencies was adopted by the California legislature and signed by the Governor (the “dissolution legislation” or “AB 26”). By its terms, the dissolution legislation became effective immediately. The dissolution legislation requires agencies and “successor agencies” to honor “enforceable obligations,” as defined in Section 34167 of the legislation. The definition of “enforceable obligation” includes “[a]ny legally binding and enforceable agreement or contract that is not otherwise void as violating the debt limit or public policy.” The South OPA and its attachments is such a contract.
6. Pursuant to AB 26, on February 1, 2012, the Agency will be dissolved. The City of San Francisco as the successor agency will automatically assume all of the Agency’s enforceable obligations. In Mission Bay, these include the Plan and the Plan Documents. On January 24, 2012, the Board of Supervisors adopted a resolution related to the Agency’s dissolution which affirmed the City’s commitment to Mission Bay and other major approved development projects going forward.
7. The Plan and the Plan Documents, including the Design Review and Document Approval Procedure, designated as Attachment G to the South OPA (“DRDAP”), provide that development proposals in Mission Bay South will be reviewed and processed by the Agency in “Major Phases,” as defined in and consistent with the Plan and the Plan Documents. Submission of design plans and documents for any specific project must be consistent with the requirements established for each Major Phase. The DRDAP sets forth the review and approval process for Major Phases and Projects. The obligation of the Agency to review and approve Major Phases and Projects, including Schematic Designs, if they are consistent with the requirements for each Major Phase is an “enforceable obligation” within the meaning of the dissolution legislation.
8. As permitted under the South OPA, Alexandria Real Estate Equities (“ARE”) purchased Blocks 26 - 34 from FOCIL-MB.



9. As permitted under the South OPA, salesforce.com, inc. (“Developer” or “Salesforce”) purchased Blocks 29 -32, in Mission Bay South, from ARE. Developer will be bound by all relevant terms of the South OPA and related agreements, including the requirements of the equal opportunity program and design review process.
10. On September 20, 2011, by Resolution No. 97-2011, the Agency Commission approved the Developer’s Major Phase Application for Blocks 26-34 in the Mission Bay South Redevelopment Project Area (“Mission Bay South”).
11. Pursuant to the Plan and Plan Documents, including the DRDAP, the Developer has submitted a Combined Basic Concept and Schematic Design for a town square and site landscaping plan for Blocks 29 -32, dated January 24, 2012 (“Schematic Design”). The town square and site landscaping plan consists of a large, publically-accessible plaza referred to as the Town Square, as well as a series of smaller, interconnecting open spaces and plazas.
12. Agency staff has reviewed the Schematic Design for purposes of compliance with CEQA and the State CEQA Guidelines.
13. The FSEIR is a program EIR under CEQA Guidelines Section 15168 and a redevelopment plan EIR under CEQA Guidelines Section 15180. Approval of the Schematic Design is an undertaking pursuant to and in furtherance of the Plan in conformance with CEQA Section 15180 (“Implementing Action”).
14. Agency staff, in making the necessary findings for the Implementing Action contemplated herein, considered and reviewed the FSEIR, and has made documents related to the Implementing Action and the FSEIR files available for review by the Agency Commission and the public, and these files are part of the record before the Agency Commission.
15. The FSEIR findings and statement of overriding considerations adopted in accordance with CEQA by the Agency Commission by Resolution No. 183-98, dated September 17, 1998, reflected the independent judgment and analysis of the Agency, were and remain adequate, accurate and objective and were prepared and adopted following the procedures required by CEQA, and the findings in said resolutions are incorporated herein by reference as applicable to the Implementing Action.
16. Agency staff has reviewed the Schematic Design submitted by Salesforce, finds it acceptable and recommends approval thereof, subject to the resolution of certain conditions.

## **FINDINGS**

The Agency finds and determines that the Schematic Design submission is an Implementing Action within the scope of the Project analyzed in the FSEIR and requires no additional environmental review pursuant to State CEQA Guidelines Sections 15180, 15162 and 15163 for the following reasons:



1. The Implementing Action is within the scope of the Project analyzed in the FSEIR and no major revisions are required due to the involvement of new significant environmental effects or a substantial increase in the severity of significant effects previously identified in the FSEIR.
2. No substantial changes have occurred with respect to the circumstances under which the Project analyzed in the FSEIR was undertaken that would require major revisions to the FSEIR due to the involvement of new significant environmental effects, or a substantial increase in the severity of effects identified in the FSEIR.
3. No new information of substantial importance to the Project analyzed in the FSEIR has become available which would indicate that (a) the Implementing Action will have significant effects not discussed in the FSEIR; (b) significant environmental effects will be substantially more severe; (c) mitigation measures or alternatives found not feasible which would reduce one or more significant effects have become feasible; or (d) mitigation measures or alternatives which are considerably different from those in the FSEIR will substantially reduce one or more significant effects on the environment.

## **RESOLUTION**

**ACCORDINGLY, IT IS RESOLVED** by the Redevelopment Agency of the City and County of San Francisco that (1) it has reviewed and considered the FSEIR findings and statement of overriding considerations and hereby adopts the CEQA findings set forth in Resolution No. 183-98 incorporated herein and those set forth above; and (2) that the Combined Basic Concept and Schematic Design for the town square and site landscaping on Blocks 29 - 32 is hereby approved pursuant to the Mission Bay South Owner Participation Agreement with FOCIL-MB, subject to the following conditions:

1. The building materials, colors, finishes, architectural detailing, and landscape design may be refined, in consultation with Agency staff, during Design Development phase. A material and color mock-up of sufficient size to be built on the construction site during an early phase of construction shall be prepared for Agency staff review to ensure consistency with approved plans.
2. The designs for the three “pavilions” located in the Town Square shall be submitted to the Agency for review and approval as part of the Design Development phase for the Town Square and/or the Design Development phase for the building on Block 32. Two of the pavilions shall be designed by architects or artists other than the campus architect, Legorreta + Legorreta.
3. A plan detailing the final design, size and operational standards of the outdoor electronic screen shall be submitted for review and approval as part of the Design Development phase of the building on Block 31. The operational standards for the outdoor electronic screen shall also be reviewed by the Citizens Advisory Committee.
4. The design of the exterior play area serving the childcare center on Block 32 shall be submitted for review and approval as part of the Design Development phase for the building on Block 32. Of particular interest to the Agency will be how the exterior



- play area meets the publicly-accessible open space along the vara and the need to ensure a pedestrian-friendly treatment to any necessary enclosures for the play area.
5. The design of the water feature in the Town Square and the base of the pylons (including the details of the relationship between these water features and the pylons) shall be refined during the Design Development phase for the Town Square.
  6. The design of all wind screens, sunshades, louvers, canopies and other architectural details require approval by the Agency and shall be reviewed during the Design Development phase for all blocks.
  7. Cooking exhaust shafts extending to the roof shall be included in retail spaces designated for restaurants as part of the Design Development submittals.
  8. Proposals for public art (in addition to the pavilions described in condition #2 above) shall be submitted to the Agency for review.
  9. The configuration of the photovoltaic panels, rooftop mechanical equipment and penthouses shall be further refined during the Design Development phase.
  10. A signage master plan for all Salesforce signage must be submitted concurrent with the Design Development application for the first building on Blocks 29 – 32. No corporate, wayfinding, retail or other signage implied in the Basic Concept and Schematic Design applications is approved as part of this action. All signage shall be consistent with the Mission Bay South Signage Master Plan.
  11. All improvements to the public right-of-way surrounding the Salesforce campus shall be consistent with the Mission Bay South Streetscape Master Plan, with the exception of the Arbutus Marina tree planting pattern and the paving material on Block 29, as shown in the Town Square and Site Landscape submittal.
  12. The amount and/or width of curb cuts serving the parking garage and loading zones shall be refined during the Design Development phase and shall be consistent with any relevant City and County of San Francisco standards. Of particular interest to the Agency is avoiding excessive interruption to the pedestrian path of travel and to the public realm.
  13. The Commission's approval of the Schematic Designs for the buildings on Blocks 29 - 32 is contingent on the Planning Commission's design review approval of the buildings consistent with Planning Code Section 321.

**APPROVED AS TO FORM:**

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James B. Morales  
Agency General Counsel





# SAN FRANCISCO PLANNING DEPARTMENT

## Executive Summary Office Allocation

HEARING DATE: MARCH 1, 2012

*Date:* February 22, 2012  
*Case No.:* **2011.1423B**  
*Project Address:* **Third Street between 16<sup>th</sup> and South Streets-  
a.k.a. Mission Bay Blocks 29-32**  
*Zoning:* Mission Bay South Commercial-Industrial-Retail  
HZ-5 Height and Bulk District  
*Block/Lot:* 8722/001  
*Project Sponsor:* Ford Fish  
Bay Jacaranda No. 2932, LLC  
The Landmark at One Market Street, Suite 300  
San Francisco, CA 94122  
*Staff Contact:* David Winslow – (415) 575-9159  
*david.winslow@sfgov.org*  
*Recommendation:* **Approval with Conditions**

1650 Mission St.  
Suite 400  
San Francisco,  
CA 94103-2479

Reception:  
**415.558.6378**

Fax:  
**415.558.6409**

Planning  
Information:  
**415.558.6377**

### PROJECT DESCRIPTION

The proposal is to develop four new buildings as the corporate headquarters for Salesforce.com on this site with a total of approximately 1,488,996 square feet. Building 29 is a 381,086 square foot, ten-story building, approximately 152-feet in height, located along Third Street at the corner of South Street and Third Street. Building 30 is a six-story, approximately 89-foot tall building containing 334,994 square feet, situated along South Street at the corner of Terry Francois Boulevard. Building 31 is a six-to ten-story, approximately 152-foot tall building containing approximately 507,304 square feet and is located on the corner of Third and 16<sup>th</sup> Streets. Building 32 is a six-story, approximately 89-foot tall building containing approximately 265,612 square feet and is located on the corner of 16<sup>th</sup> Street and Terry Francois Boulevard. A common service tunnel accessed from a single driveway in Building 30 provides loading and service to all four buildings. In addition to office space, a large publicly accessible open space plaza, approximately 4 acres, is located in the center of the campus.

Authorization is requested for up to 1,254,551 square feet of office space, with approximately 41,363 square feet of ground floor retail, and 6,000 square feet of childcare. Specifically, office allocation is requested for 350,803 square feet of office space in Building 29; 189,920 square feet of office space in Building 30; 471,975 square feet of office space in Building 31; and 241,853 square feet of office space in Building 32. A total of 1,394 off-street parking spaces will be located on-site in an underground parking garage. 260 bicycle parking spaces will be provided throughout all four buildings at the ground floor. The project sponsor is seeking allocation of an additional 154,551 square feet of office space for this first phase.



## **SITE DESCRIPTION AND PRESENT USE**

The site is located in the Mission Bay South Project Area, in a Commercial-Industrial Zoning District, and an HZ-5 Height District. Lot 001 in Assessor's Block 8722, also known as MBS Blocks 29,30, 31, and 32, comprise approximately 10.93 acres, and is bounded to the north by South Street, to the west by Third Street, to the south by 16th Street and to the east by Terry Francois Boulevard. The site is now vacant.

## **SURROUNDING PROPERTIES AND NEIGHBORHOOD**

The project site is bounded on the east by Terry Francois Boulevard, and a future public park and the San Francisco Bay beyond. The UCSF research campus and the future UCSF Medical Center lies to the west across Third Street. Commercial and institutional buildings of similar height and scale are to the south and north. The site is served by two MUNI light rail stops at Third Street.

## **ENVIRONMENTAL REVIEW**

The Project is an implementation action pursuant to and within the scope of the Mission Bay South Final Supplemental Environmental Impact Report (Case 96.771E), certified as adequate and complete, by the adoption of Planning Commission Motion No. 14696, on September 17, 1998.

## **HEARING NOTIFICATION**

TYPE	REQUIRED PERIOD	REQUIRED NOTICE DATE	ACTUAL NOTICE DATE	ACTUAL PERIOD
Classified News Ad	20 days	February 10, 2012	February 10, 2011	20 days
Posted Notice	20 days	February 10, 2012	February 9, 2011	21 days
Mailed Notice	10 days	February 16, 2012	February 13, 2011	17 days

## **PUBLIC COMMENT**

- The Mission Bay Citizens Advisory Committee (CAC) reviewed the Salesforce preliminary design concepts on June 9, 2011. In August the CAC reviewed Salesforce's design refinements on the Major Phase application prior to approval by the SF Redevelopment Commission. On January 31, 2012 the CAC reviewed the schematic designs for individual buildings.
- The CAC was supportive of Salesforce's plans for active and permeable ground floor uses, and inclusion of childcare facilities. The CAC asked Salesforce to be thoughtful about where the brightest accent colors are placed, as they will be visible to the occupants of surrounding buildings, including the future UCSF Medical Center. They also asked Salesforce to be sensitive about rooftop uses, visible from Potrero Hill.
- The Planning Department has received no public comment.



## ISSUES AND OTHER CONSIDERATIONS

- The Major Phase is the result of an extensive multi-month charrette process to front load the design work to arrive at shared vision.
- Redevelopment Agency staff and Planning Department staff participated in a series of two-day design charrettes about the design of the headquarters to ensure that key public design goals are met.
- The Master Plan consists of an “enhanced” Major Phase application and meets all requirements of a Major Phase application, which Salesforce was required to submit per the Owner Participation Agreement (OPA) for Mission Bay South. This enhanced Major Phase addresses and codifies the land use program for the campus, overall massing requirements, a palette of materials and colors, architectural style guidelines, retail standards, conceptual landscape designs and general urban design guidelines.
- Following the Redevelopment Agency Commission approval of the Major Phase in September, Redevelopment Agency and Planning Department staff continued to collaborate with Salesforce to refine the design of buildings 29- 32.

## REQUIRED COMMISSION ACTION

Approval is requested for the new project under the current application, for design review and office allocation of up to 1,254,551 square feet pursuant to Planning Code section 321 *et seq.*

## BASIS FOR RECOMMENDATION

- The Project Authorization requested would promote the health, safety, and welfare of the City, and provide jobs in an appropriate Mission Bay site.
- The proposed design of the buildings is in conformity with Motion 14702 and the Mission Bay Redevelopment Plan and the Design for development for Mission Bay South.

<b>RECOMMENDATION:</b> <b>Approval with Conditions</b>
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### Attachments:

Draft Motion

Project Sponsor Submittal, including:

- Reduced Plans, Elevations, Sections, Renderings, Material Palettes



*Subject to: (Select only if applicable)*

- |  |   |
|--|---|
| <input type="checkbox"/> Inclusionary Housing (Sec. 315)             | <input type="checkbox"/> First Source Hiring (Admin. Code)        |
| <input type="checkbox"/> Jobs Housing Linkage Program (Sec. 313)     | <input type="checkbox"/> Child Care Requirement (Sec. 414)        |
| <input type="checkbox"/> Downtown Park Fee (Sec. 139)                | <input type="checkbox"/> Other (Eastern Neighborhoods – Sec. 327) |
| <input type="checkbox"/> Transit Impact Development Fee (Admin Code) |   |

## Planning Commission Draft Motion

HEARING DATE: MARCH 1, 2012

*Date:* February 22, 2012  
*Case No.:* **2011.1423B**  
*Project Address:* **Third Street between 16<sup>th</sup> and South Streets-  
(aka Mission Bay South Blocks 29-32)**  
*Zoning:* Commercial Industrial Retail  
HZ-5 Height and Bulk District  
*Block/Lot:* 3780/001  
*Project Sponsor:* Ford Fish  
Bay Jacaranda No. 2932, LLC  
The Landmark at One Market Street, Suite 300  
San Francisco, CA 94122  
*Staff Contact:* David Winslow – (415) 575-9759  
david.winslow@sfgov.org

ADOPTING FINDINGS PURSUANT TO PLANNING COMMISSION RESOLUTION \_\_\_\_\_ RELATING TO DESIGN APPROVAL FOR FOUR NEW BUILDINGS, WITH A TOTAL OF APPROXIMATELY 1,488,996 GROSS SQUARE FEET, ALSO CONTAINING APPROXIMATELY 41,363 SQUARE FEET OF GROUND FLOOR RETAIL SPACE AND 1,394 OFF-STREET PARKING SPACES, AND TO PROJECT AUTHORIZATION UNDER THE 2011-2012 ANNUAL OFFICE LIMITATION PROGRAM PURSUANT TO RESOLUTION 14702 AND TO SECTIONS 321 AND 322 OF THE PLANNING CODE, FOR A DEVELOPMENT CONTAINING UP TO 1,254,551 SQUARE FEET (GROSS FLOOR AREA) OFFICE SPACE, LOCATED AT THIRD STREET ON ASSESSOR'S BLOCK 8722, LOT 001, A.K.A. MISSION BAY SOUTH BLOCKS 29, 30, 31 and 32 IN THE MISSION BAY SOUTH REDEVELOPMENT AREA, A COMMERCIAL-INDUSTRIAL-RETAIL ZONING DISTRICT, AND AN HZ-5 HEIGHT DISTRICT.

### PREAMBLE

On December 20, 2011, Ford Fish, of Bay Jacaranda No 2932, LLC, (hereinafter "Project Sponsor") filed Application No. 2011.1423B with the City and County of San Francisco Planning Department ("Department") for design approval and project authorization pursuant to Resolution 14702 and Planning Code Section 321, for construction of 1,254,551 square feet of office space at Mission Bay South Blocks 29, 30, 31, and 32, as further described below ("Project").



In November 2010, Salesforce purchased 14 acres of land in the Mission Bay South Redevelopment Area to build a new corporate headquarters. The purchased property consists of eight vacant parcels: the undeveloped portions of Blocks 26 and 27 and all of Blocks 29 through 34. The land was purchased from Alexandria Real Estate Equities, (ARE) who had previously purchased the parcels from FOCIL-MB, the Mission Bay master developer.

On November 1 2010, ARE transferred the Mission Bay South Development Blocks 33 and 34 to the sponsor. No office space authorization was transferred with these properties. On November 1 2010, ARE transferred 677,020 square feet of office space authorization, along with the Mission Bay South Development Blocks 29, 30, 31, and 32, to the sponsor.

On November 1 2010, ARE transferred lot 1, Block 26 and lot 1, Block 27 of the Mission Bay South Development to the sponsor. 422,980 square feet of office space authorization was transferred with these properties.

Blocks 29 - 32 will cumulatively occupy 1,254,551 square feet of office space and will require an additional 154,551 square feet of office space authorization and allocation.

In accordance with the Owner Participation Agreement ("OPA") for Mission Bay South, Salesforce submitted a Major Phase application for Block 26 (Parcel 1), Block 27 (Parcel 1) and Blocks 29 – 34. A Major Phase Application for Blocks 27, (lot 001), 28 (lot 001), 29, 30, 31, 32, 33, and 34 was approved by the Redevelopment Agency Commission in September 20, 2011. The final Schematic Design for Blocks 29-32 was approved by the Redevelopment Commission on January 31, 2012.

On September 17, 1998, by Resolution No. 14702, the Planning Commission (hereinafter "Commission") determined that the Mission Bay South Redevelopment Plan ("MBS Plan") provides for a type, intensity, and location of development that is consistent with the overall goals, objectives, and policies of the General Plan, as well as the Eight Priority Policies of Section 101.1(b) of the Planning Code ("Code").

Under that Resolution, the Commission also determined that the office development contemplated in the MBS Plan in particular promotes the public welfare, convenience and necessity, and therefore, that the determination required pursuant to Section 321 *et seq.* of the Code for office development shall be deemed to have been made for all specific office development projects undertaken pursuant to the MBS plan.

Further, the Commission considered under Resolution 14702 the guidelines set forth in Section 321(b)(3)(A)-(G) and determined that the apportionment of office space over the anticipated 30-year build-out of the South Plan Area will remain within the limits set by Section 321, and will maintain a balance among economic growth, housing, transportation, and public services, pursuant to terms of the MBS Plan and Plan Documents, which provide for the appropriate construction and provision of housing, roadways, transit, and all other necessary public services in accordance with the Infrastructure Plan (as defined in the MBS Plan Documents).

In its consideration of Resolution 14702, the Commission reviewed the design guidelines of the MBS Plan Area, as set forth in the MBS Design for Development Document ("D for D") and determined that the standards and guidelines in the D for D will ensure the design quality of any proposed office development. The Commission resolved to review and approve the designs of specific office developments in the Plan Area using the D for D guidelines and standards, when such proposals would be subject to the provisions of Section 321 *et seq.*, to confirm that said development is consistent with the findings set forth in Resolution 14702.

The Commission further resolved that, upon confirming that a specific development is consistent with the findings set forth in Resolution 14702, the Commission would issue a project authorization for that



development.

The development of office space is an element of the MBS Plan, which, among other things, provides for: "Strengthening the economic base of the Plan Area and the community by strengthening retail and other commercial functions in the Plan Area through the addition of approximately 335,000 leasable square feet of retail space ... and about 5,953,600 leasable square feet of mixed office, research and development and light manufacturing uses".

The Agency and the Planning Department, together acting as co-lead agencies for conducting environmental review for the Plan, and other permits, approvals and related and collateral actions (the "Project"), prepared and certified a Final Subsequent Environmental Impact Report (the "FSEIR"). The Agency certified the FSEIR for the Project on September 17, 1998 by Resolution No. 182-98. Also on September 17, 1998 by Resolution No.183-98, the Agency adopted environmental findings (and a statement of overriding considerations, that the unavoidable negative impacts of the Project are acceptable because the economic, social, legal, technological and other benefits of the Project outweigh the negative impacts on the environment) pursuant to the California Environmental Quality Act ("CEQA") and State Guidelines in connection with the approval of the MBS Plan and other Project approvals. The Planning Commission certified the FSEIR by Resolution No. 14696 on the same date. On October 19, 1998, the Board of Supervisors adopted Motion No. 98-132 affirming certification of the FSEIR by the Planning Commission and the Agency, and by Resolution No. 854-98 adopting environmental findings (and a statement of overriding considerations).

Pursuant to the California Public Resources Code (PRC) Section 21090 and Section 15180 of the State CEQA Guidelines, all public and private activities or undertakings pursuant to, or in furtherance of a redevelopment plan constitute a single project, and the FSEIR on the Redevelopment Plan shall be treated as a program EIR with no subsequent EIRs required for individual components of the Redevelopment Plan because events specified in PRC Section 21166 and State CEQA Guidelines Sections 15162 or 15163 have not occurred. Specifically, no substantial changes in the Project, no substantial changes in the circumstances under which the Project is being undertaken, and no new information has become available that would cause new significant environmental impacts. Also, no mitigation measures or alternatives previously found to be infeasible have been found to be feasible, and no different mitigation measures or alternatives that would substantially reduce one or more significant effects of the Project have been identified. The project Authorization for Case 2001.1423B, MBS Blocks 29, 30, 31, and 32 ("Implementing Action"), is an undertaking pursuant to and in furtherance of the Plan pursuant to CEQA Guidelines Section 15180.

As part of its actions in establishing the Mission Bay Redevelopment Project Areas on September 17, 1998, the Redevelopment and Planning Commissions certified the Mission Bay FSEIR, adopted CEQA findings, approved a series of mitigation measures, and established a comprehensive system for mitigation monitoring. The Board of Supervisors and various City departments adopted similar findings and mitigation monitoring plans. This FSEIR includes by reference eight (8) addenda.

Copies of the full four-volume FSEIR were distributed to the Commission prior to the 1998 certification and adoption of the environmental findings, and have subsequently been made available to members of the Commission. The addenda have also been made available to the members of the Commission. Additional copies of the FSEIR and addenda will be delivered to the members of the Commission upon request, and are also available for review at the Agency's offices.

Agency staff has reviewed the Combined Basic Concept and Schematic Designs submitted for Blocks 29-32 and has considered and reviewed the FSEIR and addenda. Staff finds the Combined Basic Concept and Schematic Designs to be within the scope of the project analyzed in the FSEIR and subsequent



addenda and no additional environmental review is required pursuant to State CEQA Guidelines Sections 15180, 15162, and 15163.

On March 1, 2012, the Planning Commission ("Commission") conducted a duly noticed public hearing at a regularly scheduled meeting on Office Allocation Application No. 2011.1423B.

The Commission has heard and considered the testimony presented to it at the public hearing and has further considered written materials and oral testimony presented on behalf of the applicant, Department staff, and other interested parties.

**MOVED,** That the Commission hereby approves the project design and authorizes the office space allocation pursuant to Section 321 *et seq.* as requested by Case 2011.1423B, subject to these findings and the conditions contained in Exhibit A, attached hereto and incorporated herein by reference, based on the following findings:

## FINDINGS

Having reviewed the materials identified in the preamble above, and having heard all testimony and arguments, this Commission finds, concludes, and determines as follows:

1. The above recitals are accurate and constitute findings of this Commission.
2. The Redevelopment Agency of the City and County of San Francisco (the "Agency") is implementing the MBS Plan pursuant to and in accordance with Community Redevelopment Law of the State of California.
3. **Site Description and Present Use.** The site is located in the Mission Bay South Project Area, in a Commercial-Industrial Zoning District, and an HZ-5 Height District. Lot 001 in Assessor's Block 8722, also known as MBS Blocks 29, 30, 31, and 32, comprise approximately 10.93 acres, and is bounded to the north by South Street, to the west by Third Street, to the south by 16th Street and to the east by Terry Francois Boulevard.
4. **Surrounding Properties and Neighborhood.** The project site is bounded on the east by Terry Francois Boulevard, and a future public park and the San Francisco Bay beyond. The UCSF research campus and the future UCSF Medical Center lies to the west across Third Street. Commercial and institutional buildings of similar height and scale are to the south and north. The site is served by two MUNI light rail stops at Third Street.
5. **Project Description.** The proposal is to develop four new buildings on this site as the corporate headquarters for Salesforce.com with a total of approximately 1,488,996 square feet. Building 29 is a 381,086 square foot, ten-story building, approximately 152-feet in height, located along Third Street at the corner of South Street and Third Street. Building 30 is a six-story, approximately 89-foot tall building containing 334,994 square feet, situated along South Street at the corner of Terry Francois Boulevard. Building 31 is a six-to ten-story, approximately 152-foot tall building containing approximately 507,304 square feet and is located on the corner of Third and 16<sup>th</sup> Streets. Building 32 is a six-story, approximately 89-foot tall building containing approximately 265,612 square feet and is located on the corner of 16<sup>th</sup> Street and Terry Francois Boulevard. A common service tunnel accessed from a single driveway in Building 30 provides loading and



service to all four buildings. In addition to office space, a large publicly accessible open space plaza, approximately 4 acres, is located in the center of the campus.

Authorization is requested for up to 1,254,551 square feet of office, with approximately 41,363 square feet of ground floor retail, and 6,000 square feet of childcare. Specifically, office allocation is requested for 350,803 square feet of office space in Building 29; 189,920 square feet of office space in Building 30; 471,975 square feet of office space in Building 31; and 241,853 square feet of office space in Building 32. A total of 1,394 off-street parking spaces will be located on-site in an underground parking garage. 260 bicycle parking spaces will be provided throughout all four buildings at the ground floor. The project sponsor is seeking allocation of an additional 154,551 square feet of office space for this first phase.

The project is proposed to meet the office workforce needs of Salesforce.com

6. **Public Comment.** The Mission Bay Citizens Advisory Committee (CAC) reviewed the Salesforce preliminary design concepts on June 9, 2011. In August the CAC reviewed Salesforce's design refinements on the Major Phase application prior to approval by the SF Redevelopment Commission. All future schematic designs for individual buildings will be brought to the CAC for review and input.

The CAC was supportive of Salesforce's plans for active and permeable ground floor uses, and inclusion of childcare facilities. The CAC asked Salesforce to be thoughtful about where the brightest accent colors are placed, as they will be visible to the occupants of surrounding buildings, including the future UCSF Medical Center. They also asked Salesforce to be sensitive about rooftop uses, visible from Potrero Hill.

The Planning Department has received no public comment.

7. **Planning Code Compliance.** The Commission finds and determines that the Project is consistent with the relevant provisions of the Code in the following manner:

1. Section 321- Available Allocation: Consistent with Section 304.11 of the MBS Redevelopment Plan and Planning Code Sections 320 through 325, approval of the office development of MBS Blocks 29-32 would not exceed the annual limitation contained in Planning Code Section 321.

At present, the unassigned large office allocation (for projects equal to or greater than 50,000 square feet in area) is 3,831,349 square feet. Upon authorization of the subject project for 154,551 square feet, 3,676,798 square feet would be available for allocation to pending and future office projects this year.

2. Section 321- Approval Criteria: Pursuant to Resolution 14702, the Commission is charged with determining whether the Project conforms to applicable standards in the D for D Document, which supersedes the criteria set forth in Section 321 and other provisions of the Code except as provided in the MBS Plan. The proposed Project meets the MBS Redevelopment Plan and the D for D Document standards and guidelines as described below in findings 6 and 7, respectively:
3. Mission Bay South Design for Development Standards

The Mission Bay South (MBS) Design for Development Document is a companion document to the Mission Bay South Redevelopment Plan. It contains Design Standards and Design Guidelines, which apply to all development within the MBS Plan Area. With the adoption of the MBS Redevelopment



Plan and the Design for Development Document (D for D), those documents supersede the San Francisco Planning Code in its entirety, except as otherwise provided in the MBS Redevelopment Plan.

The proposed Project meets the MBS Redevelopment Plan and D for D Document standards and guidelines as described below.

In MBS plans for the development of buildings are preceded by the approval of a Major Phase, which generally covers one or several MBS blocks and in which such items as the general appearance, site planning (program of uses, estimated: range of development density, parking, loading, square footage of each use and schedule for development, utilities, transit, vehicular, pedestrian and bicycle circulation, open space, private and public) and streetscape are considered. Any major phase should also meet the MBS Redevelopment Plan and D for D standards and guidelines.

## **Standards**

### **A. Land Use**

Blocks 29-32, as shown in Attachment x of the MBS Redevelopment Plan, "Redevelopment Land Use Map", are within a designated Commercial Industrial Retail District.

*Plans for development of Blocks 29- 32 indicate that the intended use would be office and retail with associated parking, which are permitted uses in that District (Section 302.4 of the MBS Redevelopment Plan).*

### **B. Height**

According to Map 4 of the MBS D for D, Blocks 29, 30, 31, and 32 are within Height Zone-5 (HZ-5), which has the following development controls:

- Base Height: 90'
- Base Height Coverage: 93% of HZ-5
- Tower Height: 160'
- Tower Height Coverage: 7% of HZ-5
- Location of Towers: No tower permitted in Blocks 26a, 28, 30, 32, 34 & X4.
- Corners: No intersection to allow more than 2 towers within 50' of the corner.
- Tower Separation: 100'
- Orientation: Towers along 3<sup>rd</sup> Street not to exceed 160'
- Mechanical Equipment: Exempt from the Height limitation.  
The exemption is limited to the top 36' (20' for a mechanical penthouse, 16 for top of a ventilator stack) of such features where the height limit is more than 65'.

*The proposed development of Blocks 29-32 consists of four buildings; the maximum height of each building would be: Buildings 29 and 31= 152'; Buildings 30 and 32= 90'. The proposed coverage is consistent with the percentages for Base Height and Tower Height coverage determined in the Major Phase Application. The proposal complies with the number, location, orientation and separation of towers as required in the D for D. Mechanical equipment would be located on the roof and screened from view, the maximum height of the proposed screens would be 12' for all Buildings.*



C. Bulk

Bulk controls apply above 90' and include the following standards:

- Maximum Plan Length: 200'
- Maximum Floor Plane: 20,000 square feet

*Buildings 29 and 31 are subject to Bulk requirements; their maximum plan length, as shown on plans would be 184' feet, and the maximum floor planes would be 18,042 square feet, and 16,880 square feet respectively.*

D. Setbacks

- Required Setbacks: 5' setback on east side of Third Street; 20' setback at 16<sup>th</sup> Street.

*The development of Blocks 29-32 proposes a 5' setback along Third Street and a 20' landscaped setback that includes a jogging path along 16<sup>th</sup> Street.*

E. Coverage and Streetwall

In Commercial Industrial Retail Districts the D for D Document sets forth the following requirements:

Coverage: Non Applicable.

Streetwall:

- Minimum Length: Minimum 70% of block frontage length along primary streets required (Third Street and 16<sup>th</sup> Street are considered primary streets, (70% refers to the total measurement from street to street with exceptions for pedestrian walkways).
- Minimum Height: 15'
- Maximum Height: Height no to exceed 90' (except for mid-rise and towers).
- Corner Zone Conditions: At all intersections along primary streets, build to streetwall at all corners for a distance of 50'. Height of buildings at the corners to be no less than 15'.
- Projections: Architectural projections over a street, alley, park or plaza shall provide a minimum of 8' of vertical clearance over the sidewalk or other surface above which they are situated.

*The application for Planning Code Section 321 (b) determination for development of Blocks 29, 30, 31, and 32 indicates the minimum length of streetwall would be 77.5% along the Third Street frontage, and approximately 99.6% along the 16th Street frontage; the minimum streetwall height would be approximately 60' along Third Street, and the maximum streetwall height to be 152'. The proposed building would also comply with the applicable requirements for Corner Zone Conditions, with an open space with entries that serves retail that exempts from the street wall at the corner of Third and 16<sup>th</sup> Streets.*



#### F. Sunlight Access to Open Space

As the MBS D for D Document indicates, additional shadow analysis will not be required unless, as part of a specific project application, the project applicant seeks a variance from the standards determining the shape and location of buildings.

*No exception is required as part of this application.*

#### G. Wind Analysis

The MBS D for D Document indicates that wind review will be required for all projects that include buildings over 100' in height. The height of the proposed building would be 160'.

*A Pedestrian Wind Study was prepared by RWDI, Consulting Engineers and Scientists for this Site. The Study considered the entire Major Phase of development proposed in the application. The final Report, dated January 11, 2012 concludes that wind conditions at grade, around the development, were predicted to be comfortable for walking year-around.*

*The study indicates that wind speeds and duration of windy conditions would meet the criteria for pedestrian comfort provided in Section 148 of the Planning Code. The report indicated that the large majority of the site has excellent wind comfort and thermal comfort conditions. The report included analysis of landscape design such as tree windbreaks and tree groves, as well as architectural elements, such as canopies and windscreens to improve wind comfort at the Town Square.*

#### H. View Corridors

View corridors follow street alignments and are based on the following principles: to preserve orientation and visual linkages to the Bay, as well as vistas to hills, the Bay Bridge and downtown skyline; to preserve orientation and visual linkages that provide a sense of place within Mission Bay. No building or portion thereof shall block a view corridor.

*The proposed development of Blocks 29-32 does not block any view corridors as defined above. A pedestrian bridge would connect buildings 32 and 31 near 16<sup>th</sup> Street and encroach into the view corridor established by the north-south vara, but because of its location and minimal visibility would still preserve the view corridor. The existing building to the south of the site already blocks this view corridor. The one-story bridge would span the vara at the fourth floor and would be approximately 10' wide.*

#### I. Parking

The number of off-street parking spaces required and/or allowed for uses within MBS, as indicated in the MBS D for D are the following:

- Office: Maximum and minimum, one space for each 1,000 square feet of gross floor area.
- Retail: Maximum, one space for every 500 square feet of gross floor area for up to 20,000 square feet.



- ⦿ Restaurant: maximum 1 Stall per 200 square feet of gross floor area.
- ⦿ Bicycle Parking: One secure bicycle parking space must be provided for every 20 vehicular parking spaces or fraction thereof.

*Based on the gross square footage indicated on the application for Planning Code Section 321 (b) determination for development of Blocks 29- 32, the maximum number of allowable parking spaces required would be: Retail (6,334 square feet) 13 parking spaces; Restaurant (41,836) 208 parking spaces; Office uses (1,173,045 square feet) 1,173 parking spaces, for a total of 1,394 vehicular parking spaces. As proposed, all parking would be screened from view. Based on the above, 70 bicycle parking spaces are required. A total of 260 bicycle parking spaces are proposed.*

#### J. Loading

The number of loading spaces required and/or allowed for uses within MBS, provided per gross square feet, as indicated in the MBS D for D are the following:

- ⦿ Retail: One space for retail uses between 10,001 and 60,000 square feet.
- ⦿ Commercial: Two spaces for commercial uses between 200,001 and 500,000 square feet.
- ⦿ Dimensions: At least 10' wide, 35' long and 14' high.

*Based on those ratios, the total number of loading spaces would be ten: two loading spaces for Block 29; two serving Block 30; three serving block 31; and 2 serving block 32 are provided, However, because of the shared service tunnel access and the ability to share loading spaces it was determined by Agency Staff that the nine spaces provided would satisfy the requirements indicated in the D for D Document.*

#### 4. Mission Bay South Design for Development Design Guidelines

The Applicable Design Guidelines are: **Commercial Industrial Guidelines.**

##### **1. Block Development**

##### A. View Corridors

“View corridors are defined by the Mission Bay street grid. No building or portion thereof shall block a view corridor established by that grid of streets and dedicated right-of-ways”.

*The proposed development of Blocks 29-32 does not block any view corridors as defined above.*

##### **B. OPEN SPACES**

“Encourage the development of publicly-accessible open spaces at ground level. Where feasible, design these open spaces in relation to local-serving retail such as cafes and to the public open space network”.

*The development of Blocks 29-32 contemplates the development of nearly 4 acres of a publicly accessible private open space network which includes two major open spaces at the intersection of the vara easements and a series of smaller, interconnected open spaces and plazas for different activities, with strong relationships to the pedestrian circulation, retail uses, building entrances, sun access, wind and potential views towards the Bay.*



*This is achieved through changes in level, planting of trees (evergreen and deciduous), ground covers, water features, furniture and public art all of which enhance the scale, add visual interest and create vantage points to see the Bay. The Town Square will be at the center of the campus and is intended to be a gathering place for the public as well as Salesforce employees. It will contain seating, farmer's markets, outdoor café space, art work and other programming. The open space organizes the site with respect to views, way-finding, and connections to Mission Bay, the Bay and downtown, breaks the scale of the blocks, and provides a chance for the general public to interact with the site.*

*Several key elements will help define the open space and Town Square. There will be two pavilions that will serve as sculptural elements in the space. The pavilions will include retail, meeting spaces and other uses to help activate the open space. One of the pavilions will be designed by local or international artists to create architectural variety and interest. The second pavilion, located adjacent to the building on Block 31, will be designed by Legorreta + Legorreta in the same architectural vocabulary as the campus and will support an outdoor electronic screen. The screen will provide public programming, such as baseball games or movies, to help activate the central open space. The Redevelopment Successor Agency will establish operational controls and requirements on the electronic screen during later design phases. Retail space is located throughout the open space to help activate the open space.*

*A common thread that runs through the landscaping of the open spaces will include various water features that lead from 3<sup>rd</sup> Street to Terry Francois Blvd, -the visual axis to the Bay – fountains, runnels, a large vernal pool that will expand and contract, depending on the season or use in the center, terminating in a wetlands mazes that celebrate and connect the space to the Bay.*

### **C. Pedestrian Walkways**

*“Walkways are encouraged to enhance the pedestrian experience in the Commercial Industrial area”.  
“Walkways to mid-block open spaces or courtyard are encouraged”.*

*Blocks 29-32 are bisected by two publicly accessible pedestrian easements or varas: the north-south vara running from 16<sup>th</sup> Street to South Street; and an east-west vara, an emergency access and pedestrian easement, running from Terry Francois Boulevard to the Mission Bay UCSF Campus. The pedestrian experience created by these private, pedestrian-oriented streets would be enhanced through their relation to a series of plazas and open spaces that create a variety of uses and sequence of public open spaces. The east-west vara leads from the Third Street Muni stop through the site to the waterfront park. The north-south vara connects Mission Bay to views of downtown.*

## **2. Street Frontage**

### **A. Streetwall**

*“Commercial areas in San Francisco are noted for streets with buildings at the property line where there is little or no space between the buildings. This historical pattern of development gives San Francisco its intense urban quality and should be a model for Mission Bay development. Commercial Industrial Buildings shall be continuous at the property line on streets, except for occasional breaks in the streetwall”.*

*“Setbacks up to 10' from the property line are allowed within a continuous streetwall”.*



“Variations from the streetwall are allowed to create open space, pedestrian circulation space, mid-block lanes and landscaping areas”.

*The majority of the building facades at ground level would be built to the property or setback line. Breaks in the street wall occur where open space is created. Building 29 is set back 72'-6" from Third Street to establish an entry plaza to the Salesforce campus. Building 31 presents a small break at the corner of Third Street and 16<sup>th</sup> Street at ground level that would accentuate the entrances to retail spaces. The solid street wall logically erodes along the building faces at Terry Francois Boulevard where the intent is to expand the public open space to face the Bayfront Park and the Bay. Access to the main building entrances are recessed from the streetwall at multiple points around the perimeter, and are sized proportionally to maintain the intent of holding a strong street wall*

*This approach would be consistent with the traditional development pattern that gives San Francisco an intense urban quality, as sought by the Design Guidelines.*

#### B. Streetwall Height

“Within high density commercial areas of San Francisco such as downtown and South of Market, a typical ratio of street width to streetwall height is approximately 1: 1.25”. “The building-street relationship in Mission Bay Commercial Industrial areas should reflect this city pattern”.

*Along Third Street, the relation of streetwall height to the width of the Street (except for the tower portion) would not exceed the typical ratio found in the high density commercial areas of San Francisco.*

#### C. Pedestrian Scale

“Office and other commercial buildings are encouraged to be active and to incorporate visually interesting details and/or decoration into the design of the building base”.

“Large scale city-serving retail development should attempt to maintain an inviting pedestrian experience on the street. Street level frontage, where feasible, should be primarily devoted to entrances, shop windows, displays and other visually interesting features”. “An attempt should be made to maintain a continuous block façade line consistent with block development throughout Mission Bay”.

*Plans for the development of Block 31 show, along Third Street, approximately 9,740 square feet of retail space and along 16<sup>th</sup> Street.. Along 16<sup>th</sup> Street the plans indicate the intended use to be offices with a publically accessible lobby that allow access through to the central plaza. The scale of ground floor is modulated by a rhythm of columns and glazing and recesses at entries.*

*The ceiling height of the ground floor would be approximately 15', which would establish an inviting pedestrian scale. A large proportion of the Third Street ground floor would be devoted to shop windows and entrances to retail. The 16' high storefront openings are designed as wide, recessed openings with 6' high signage band spandrels above the 10' high clear glazed shop windows and entrances. The signage bands would further accentuate the height of the retail spaces. This treatment would wrap around 16<sup>th</sup> Street to express the corresponding portion of retail. The intended use of the ground floor is offices and a lobby. Contrasting the storefront are narrow vertical sections of curtain wall that uses clear vision glass and colored back panels as shadow boxes at the structural slabs. Landscaping plans indicate that a portion of the setback would accommodate planting areas which with different treatments would add visual interest and enhance the pedestrian experience.*



*Pedestrian scale is also taken into account in the design of all four of the building façades that face the north-south vara, which is unified by stone walls perforated with deep punched recesses and openings with awnings at the ground level.*

#### **D. Curb Cuts**

*“In order to preserve the continuity and quality of the pedestrian environment, curb cuts for parking and service uses are strongly discouraged along Third Street”.*

*No curb cut is proposed along Third Street or 16th Street. The preservation, continuity and quality of the pedestrian environment would be further enhanced with the centralization of all the service operations in the basement and accessed by a service tunnel accessible from South Street.*

### **3. Building Height and Form**

#### **A. Height Locations**

*“The predominant commercial height zone in Mission Bay allows buildings to a maximum of 90’ high. Buildings up to 160’ high may be constructed within a percentage of the developable area of each height zone as indicated in the Design Standards”.*

*The proposed development of Blocks 29-32 consists of four buildings, Building 29 and 31, which will raise to a height of 152’ and which would be within the percentage of developable area for Height Zone 5 (HZ-5), and Buildings 30 and 32 which will raise to 90’. The placement of the different buildings heights within the site takes into account the proximity to parks, the shoreline, views and potential towers in the neighboring blocks.*

#### **B. Skyline Character**

*“Skyline character is a significant component of the overall urban composition that is San Francisco and the guidelines encourage development which will complement the existing city pattern and result in new, attractive view element as seen from vantage points”.*

*The building massing proposed for the development of Block 29-32 is consistent with the existing city pattern of low buildings near the waterfront, which contributes to the gradual tapering of heights from the hilltops to the water that is characteristic of San Francisco and allows views to the Bay. The stepped and generally horizontal massing is punctuated a variety of building heights including towers and tall, slender architectural features, such as the 182’ high campanile and two freestanding pylons that rise to 165’ high. Additionally, the upper two floors of the office building blocks are stepped back and treated with clear glazing, capped with an overhanging roof to further sculpt and de-materialize and their form.*

#### **C. Building Base**

*“For pedestrians, the character of the building base is important in establishing a comfortable scale and environment and should be designed to achieve this”. “Variety at street level for pedestrian scale can be achieved through the use of design features such as stairs, entries, expressed structural elements, arcades, projections, rusticated materials and landscaping”.*



*The base of the four buildings would offer variety at street level. Each building interacts with, and creates variety at the street level using several techniques: recessed entry lobbies, transparent commercial storefronts, transparent ground floor offices, landscaping, terraces and strong sculpted building forms.*

#### **D. Roofscape**

“Recognizing that Mission Bay building roofs may be visible from higher surrounding locations, they should be designed consistent with the distinctive architecture of the building”. “Roofs should use non-reflective, low intensity colors”. “Mechanical equipment should be organized and designed as a component of the roofscape and not appear to be a leftover or add-on element. Mechanical equipment should be screened as provided in the Design Standards”.

*The roofscape of all four buildings are intentionally designed with occupied landscaped terraces, painted metal cabanas, and mechanical equipment enclosures designed to complement the overall exterior expression of each building. The plans for the proposed development indicate that mechanical equipment, stairs, and elevator penthouses would be organized and screened from view within a single louvered screen enclosure which would in turn support photovoltaic panels. The supporting structure for the photovoltaic would be painted with the accent color of each building. The stepback areas of the buildings, which would be visible from other tall buildings, are proposed as green roofs. The roof deck parking in Building 30 will be screened by full height terra cotta screens and a shade canopy. A portion of the roof of Building 30 will include a roof top pool screened by a full story purple lattice structure filled in with clear glazing.*

### **4. Architectural Details**

#### **A. Visual Interest**

“To mitigate the scale of development and create pedestrian friendly environment, building massing should be modulated and articulated to create interest and visual variety”.

*The composition of the buildings comprising the campus were massed to achieve several key goal: first, to strengthen the street walls and present an urban form that reinforces the Mission Bay; second, to moderate the scale of large blocks; third, to add visual interest; fourth, to provide visual points of reference; and fifth to sculpt the massing down to the water.*

*The overall vocabulary of the buildings is a consistent but playful variation of a theme: boldly scaled solid masses that wrap around and past other masses, punctuated by deep fenestration and further articulated by vertical and horizontal glazed curtain walls. The buildings are also accented with vertical masses; deep horizontal roof overhangs and thick walls layered with varied materials. A clear glass curtain wall system on the upper floors- capped by folding roof/wall plane- provides contrast to the solid base of the buildings, and serves as a recurring motif that unifies the variations of building forms and different combinations of colors and materials throughout the campus.*

#### **Block 29, Olive building**

*The Olive building will clearly articulate the role of primary entry to Salesforce headquarters. Located on the corner of 3<sup>rd</sup> and South Street, the building is composed of a 10-story tower that steps down to a 6-story mass that further steps down to a 4-story structure along 3<sup>rd</sup> Street. The 6-story mass is covered by a folded plane*



overhang that is supported by colorful columns. A 165' tall campanile attached to Building 29 will visually mark the center of the town square.

### **Block 30, Purple building**

This building, at South Street and Terry Francois Boulevard, contains six stories of structured parking and office space. In addition to the office and entrance lobby, the ground floor is programmed with a fitness center and retail space which is setback from the street, providing a plaza that faces onto the waterfront park across Terry Francois Boulevard.

The building is strongly articulated into three segments: the parking structure, which is clad with a vertical orange terracotta rainscreen; the office block, which is clad with orange terra cotta and punched window openings; and an amenity wing which is clad with a purple accent material fenestrated with a square lattice grid.

### **Block 31, Pink building**

The Pink building at the corner of 16<sup>th</sup> and 3<sup>rd</sup> St. occupies an important corner of two prominent streets. It is composed of three distinct building masses: a five- to six-story bar along 3<sup>rd</sup> Street that intersects with a ten-story office building as it wraps around the 16<sup>th</sup> street corner, and a six-story building mass in the mid-block of 16<sup>th</sup> that is separated by the office entrance lobby. Ground floor retail along 3<sup>rd</sup> street wraps around 16<sup>th</sup> Street and into the "town center" plaza, and office uses occupy the majority of the remaining sides. The composition is solidly massed blocks punctuated by deeply recessed punched fenestration, contrasted by upper story setbacks and clad with glazed curtain walls, and capped by a flat roof plane with deep overhangs that folds down into a thickened wall.

### **Block 32, Yellow building**

The smallest of the four buildings occupies the corner of Terry Francois Boulevard and 16<sup>th</sup> Street. The building steps down to create a series of terraces that face the waterfront. A delicate glass and steel bridge spans the vara to connect the Yellow building to the Pink building.

The proposed modulation and articulation of the buildings create interest and visual variety, as sought by the Design Guidelines.

## **B. Color and Materials**

"Extreme contrast in materials, colors, shapes and other characteristics which will cause buildings to stand out in excess of their public importance should be avoided".

The building design proposes a palette of rich base of colors and natural materials including limestone, terracotta, and brick accented by bold and distinctive colors. Continuity between buildings is attained by repeated combinations of stone, terracotta, and clear glass used in similar formal themes that would be consistent with the proposed building materials, and avoids extreme contrasts and would reflect the generally light tone character of San Francisco buildings. Variations in the base colors, in addition to the accent colors provide a colorful, yet coordinated play of materials and color.



## DECISION

That based upon the Record, the submissions by the Applicant, the staff of the Department and other interested parties, the oral testimony presented to this Commission at the public hearings, and all other written materials submitted by all parties, the Commission hereby **APPROVES Office Development Application No. 2011.1423B** subject to the conditions attached hereto as Exhibit A, which is incorporated herein by reference as though fully set forth, in general conformance with the plans stamped Exhibit B and dated March 1, 2012, on file in Case Docket No. 2011.1423B.

**APPEAL AND EFFECTIVE DATE OF MOTION:** Any aggrieved person may appeal this Office-Space Allocation to the Board of Appeals within fifteen (15) days after the date of this Motion. The effective date of this Motion shall be the date of adoption of this Motion if not appealed (after the 15-day period has expired) OR the date of the decision of the Board of Appeals if appealed to the Board of Appeals. Any aggrieved person may appeal this active use exception from Planning Code Section 145.1 by appealing the associated Building Permit to the Board of Appeals fifteen (15) days after the issuance of such permit. For further information, please contact the Board of Appeals at (415) 575-6880, 1660 Mission, Room 3036, San Francisco, CA 94103.

I hereby certify that the Planning Commission ADOPTED the foregoing Motion on March 1, 2012.

Linda D. Avery  
Commission Secretary

AYES:

NAYS:

ABSENT:

ADOPTED: January 26, 2012



# EXHIBIT A

## AUTHORIZATION

This authorization herein is for an Office Allocation for the properties located at Third Street between 16<sup>th</sup> and South Streets, on assessors Block 8722, and lot 001, a.k.a Mission Bay South Blocks 29-32, pursuant to Planning Code Section(s) **321, 322, et seq.** and to Motion 14702 for assignment of up to 159,680 square feet of office area and for design approval of four new buildings containing a total of 1,254,551 square feet of office area (including approximately 1.1 million square feet of office area previously allocated under Planning Commission Resolution Number 17709

in general conformance with plans, dated **January 24, 2012**, and stamped "EXHIBIT B" included in the docket for Case No. **2011.1423B** and subject to conditions of approval reviewed and approved by the Commission on **March 1, 2012** under Motion No **XXXXXX**. This authorization and the conditions contained herein run with the property and not with a particular Project Sponsor, business, or operator.

## RECORDATION OF CONDITIONS OF APPROVAL

Prior to the issuance of the building permit or commencement of use for the Project the Zoning Administrator shall approve and order the recordation of a Notice in the Official Records of the Recorder of the City and County of San Francisco for the subject property. This Notice shall state that the project is subject to the conditions of approval contained herein and reviewed and approved by the Planning Commission on **March 1, 2012** under Motion No **XXXXXX**.

## PRINTING OF CONDITIONS OF APPROVAL ON PLANS

The conditions of approval under the 'Exhibit A' of this Planning Commission Motion No. **XXXXXX** shall be reproduced on the Index Sheet of construction plans submitted with the site or building permit application for the Project. The Index Sheet of the construction plans shall reference to the Conditional Use authorization and any subsequent amendments or modifications.

## SEVERABILITY

The Project shall comply with all applicable City codes and requirements. If any clause, sentence, section or any part of these conditions of approval is for any reason held to be invalid, such invalidity shall not affect or impair other remaining clauses, sentences, or sections of these conditions. This decision conveys no right to construct, or to receive a building permit. "Project Sponsor" shall include any subsequent responsible party.

## CHANGES AND MODIFICATIONS

Changes to the approved plans may be approved administratively by the Zoning Administrator. Significant changes and modifications of conditions shall require Planning Commission approval of a new Conditional Use authorization.



## Conditions of Approval, Compliance, Monitoring, and Reporting

### PERFORMANCE

**Validity and Expiration.** The authorization and right vested by virtue of this action is valid for five (5) years from the effective date of the Motion. A building permit from the Department of Building Inspection to construct the project and/or commence the approved use must be issued as this Office Development is only an approval of the proposed project and conveys no independent right to construct the project or to commence the approved use. Owing to the scale of the Office Development and number of properties involved, the Planning Commission acknowledges the likelihood that construction will not commence within the 18 month period typically applicable to office development projects. However, nearly 90 percent of the total office space in the Project was previously authorized as part of the Alexandria Mission Bay Life Sciences and Technology District in which, pursuant to Planning Commission Motion Number 17709, allocations and re-allocations of office space may occur without a proscribed time limit. Accordingly, and in keeping with Planning Commission Motion Number 17846A (in which the Commission reaffirmed its policy to not seek revocations of office allocations for active projects) the Commission has determined that should it wish to seek the revocation of the approvals granted, it will not do so for at least five (5) years from the effective date of the Motion. After such time has elapsed, the Planning Commission may, in a public hearing, consider the revocation of the approvals granted if a site or building permit has not been obtained. Once a site or building permit has been issued, construction must commence within the timeframe required by the Department of Building Inspection and be continued diligently to completion. The Commission may also consider revoking the approvals if a permit for the Project has been issued but is allowed to expire and more than eight (8) years have passed since the Motion was approved.

*For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sfplanning.org](http://www.sfplanning.org)*

**Extension.** This authorization may be extended at the discretion of the Zoning Administrator only where failure to issue a permit by the Department of Building Inspection to perform said tenant improvements is caused by a delay by a local, State or Federal agency or by any appeal of the issuance of such permit(s). *For information about compliance, contact Code Enforcement, Planning Department at 415-575-6863, [www.sfplanning.org](http://www.sfplanning.org)*



## OTHER CONDITIONS

The Project Sponsor shall submit to the Zoning Administrator two copies of a written report describing the status of compliance with the conditions of approval contained within this Motion every six months from the date of this approval through the issuance of the first temporary certificate of occupancy. Thereafter, the submittal of the report shall be on an annual basis. This requirement shall lapse when the Zoning Administrator determines that all the conditions of approval have been satisfied or that the report is no longer required for other reasons.

Development of the Site may precede the installation of off-site infrastructure in the area. The Infrastructure for the proposed building as described in Application 2011.1423B shall be reviewed and approved by the City staff.

The project Sponsor shall continue to work with Department and other City staff in refining certain aspects of the architectural design, finishes and detailing.

Public Art: Pursuant to the MBS Redevelopment Plan, 1% of initial construction costs shall be allocated to public art. The project sponsor will work with City staff to define the public art installation, which should (1) be located where public benefit and enjoyment is maximized, (2) have placement that is appropriate to the scale and nature of the artwork being considered and (3) will complement and enhance the architecture or the space where it is located.

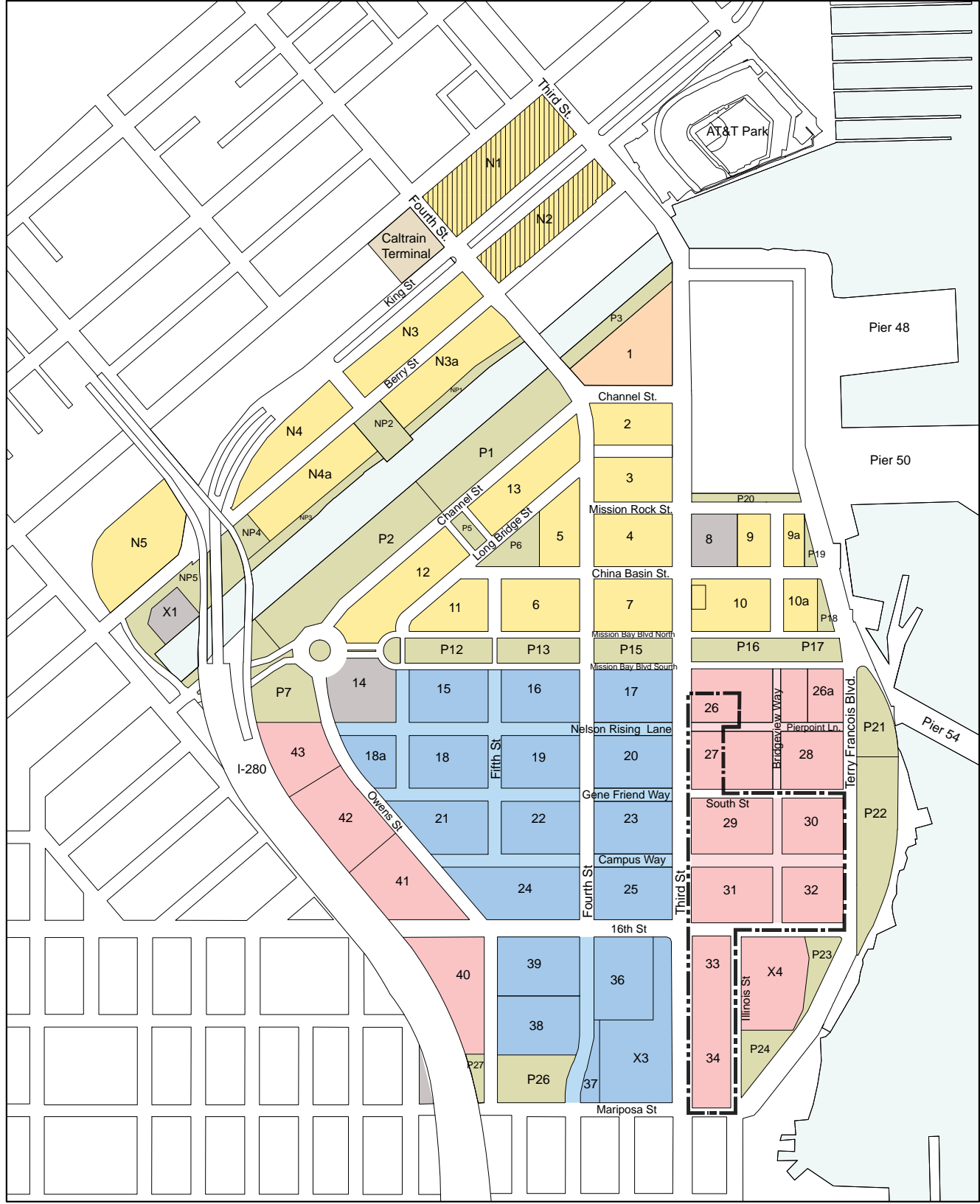
1650 Mission St.  
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**415.558.6409**

Planning  
Information:  
**415.558.6377**





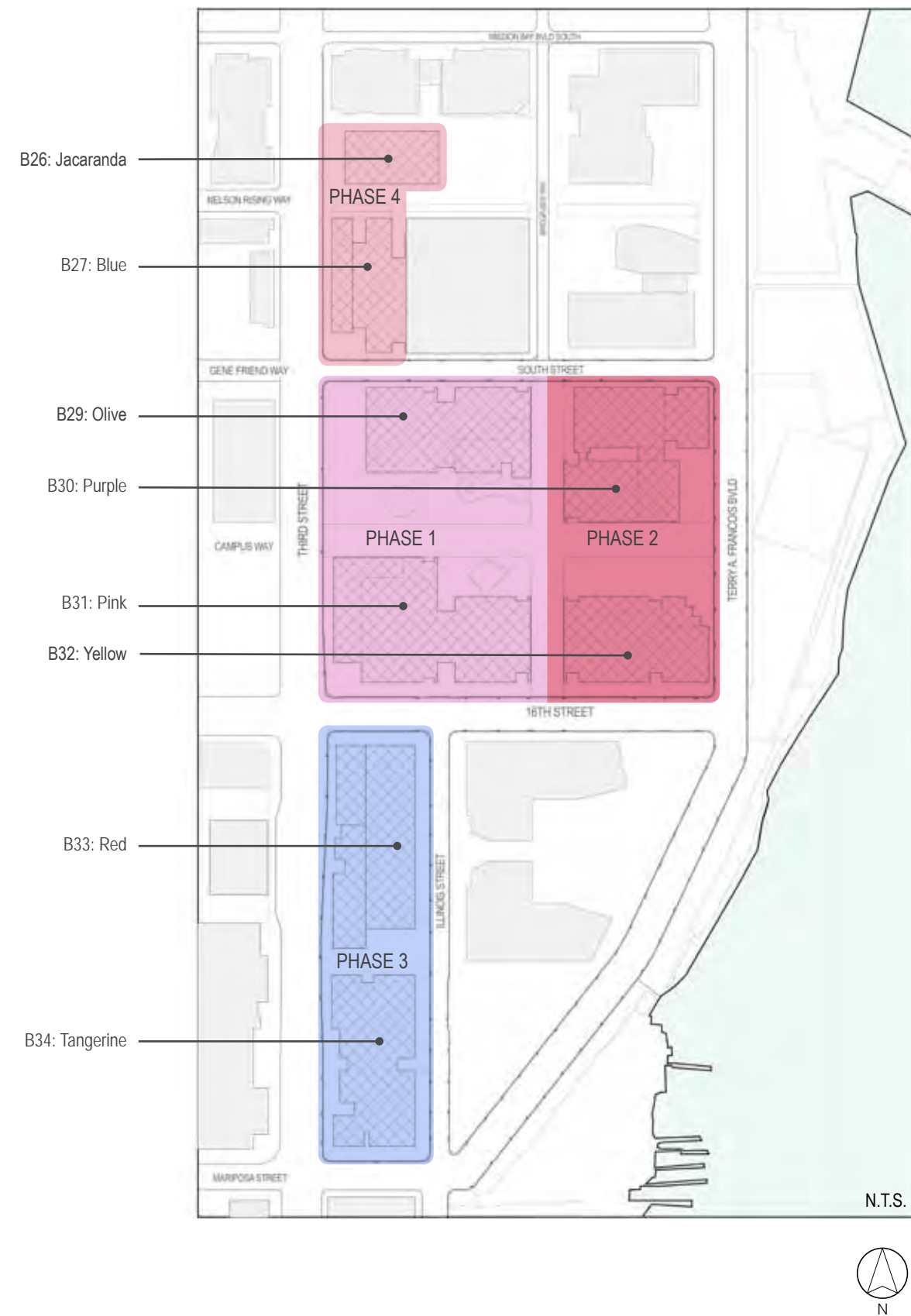
# LEGEND

- UCSF
- COMMERCIAL / INDUSTRIAL
- RESIDENTIAL
- MISSION BAY RESIDENTIAL
- HOTEL
- OPEN SPACE
- PUBLIC FACILITIES
- MAJOR PHASE BOUNDARY

## Land Use

The schematic design program for Blocks 29-32 comply with the Mission Bay South Redevelopment Plan (Sec. 302) and D4D Land Use Map. The proposed development will primarily consist of commercial office space and neighborhood serving retail and restaurants. Per the Land Use Map, Blocks 26 (parcel 1), 27 (parcel 1), 33, 34 are identified as COMMERCIAL/ INDUSTRIAL, while Blocks 29-32 are identified as COMMERCIAL/ INDUSTRIAL/RETAIL. Additional development space will consist of public, neighborhood-serving retail businesses and restaurants with provisions for associated structured parking and employee amenities such as childcare centers and fitness centers.

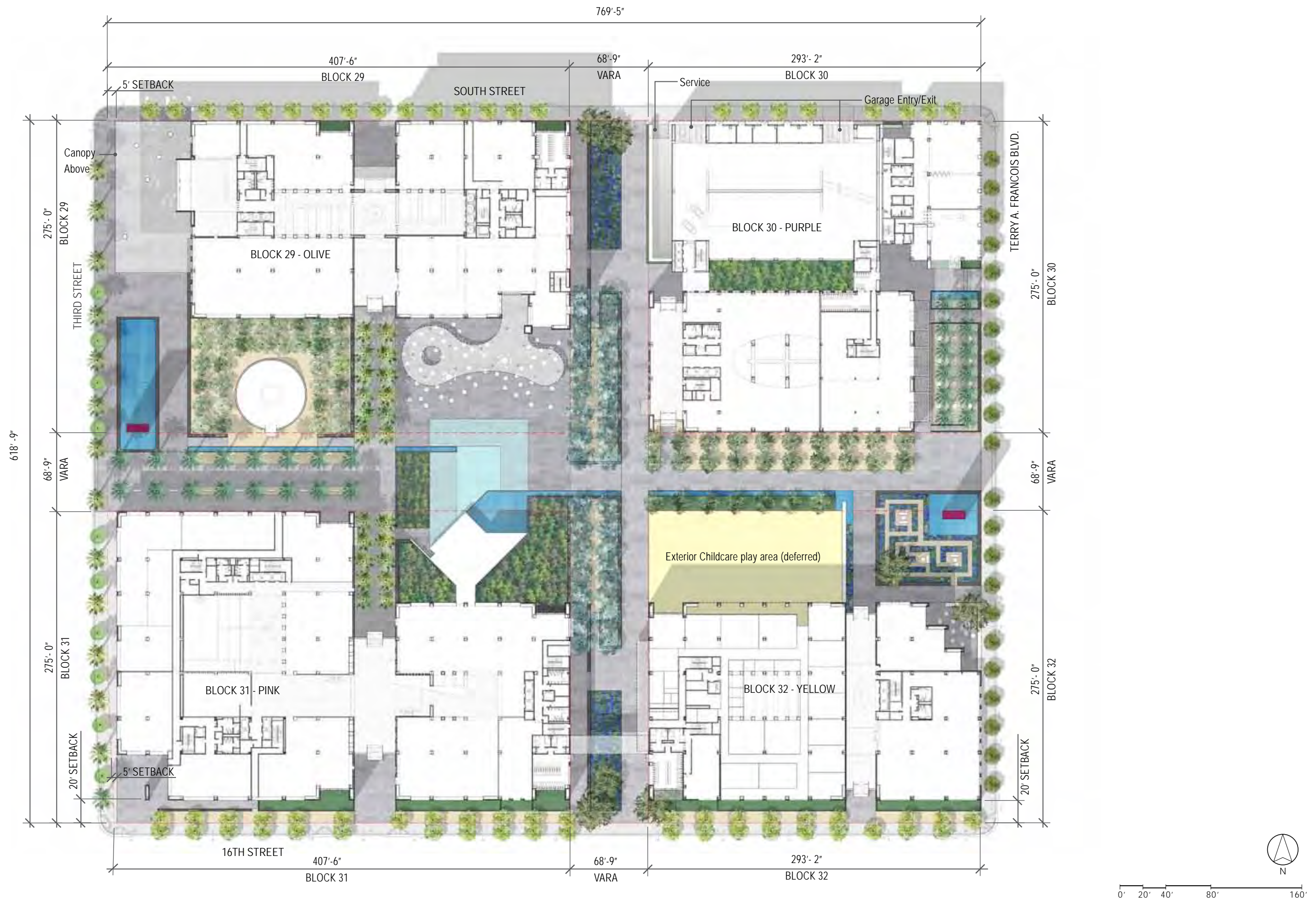




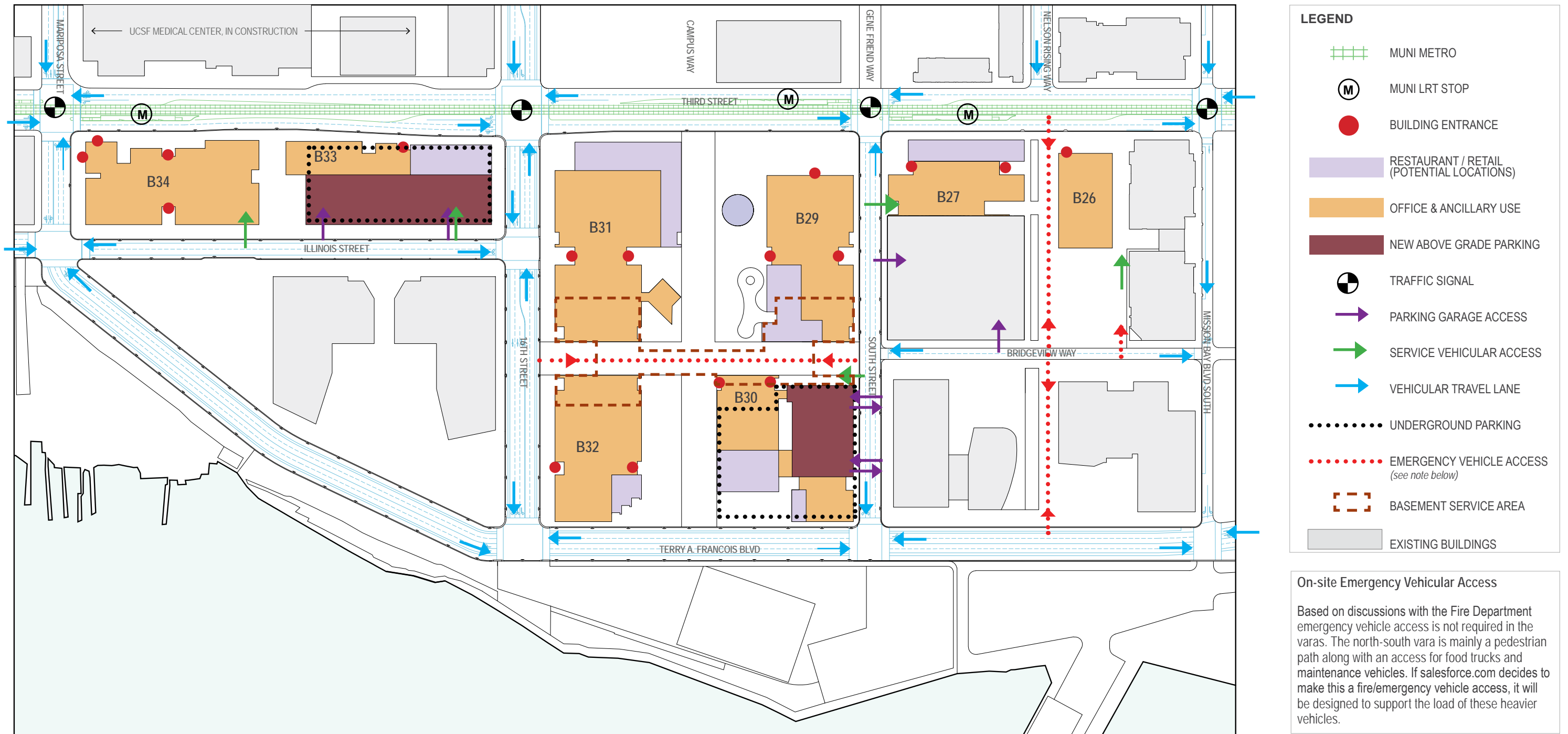
#### LEGEND

- PHASE 1- BLOCKS 29 & 31
- PHASE 2- BLOCKS 30 & 32
- PHASE 3- BLOCKS 33 & 34
- PHASE 4- BLOCKS 26 & 27

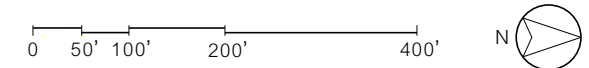








\*For the purposes of formatting, this plan is rotated to fit the page.



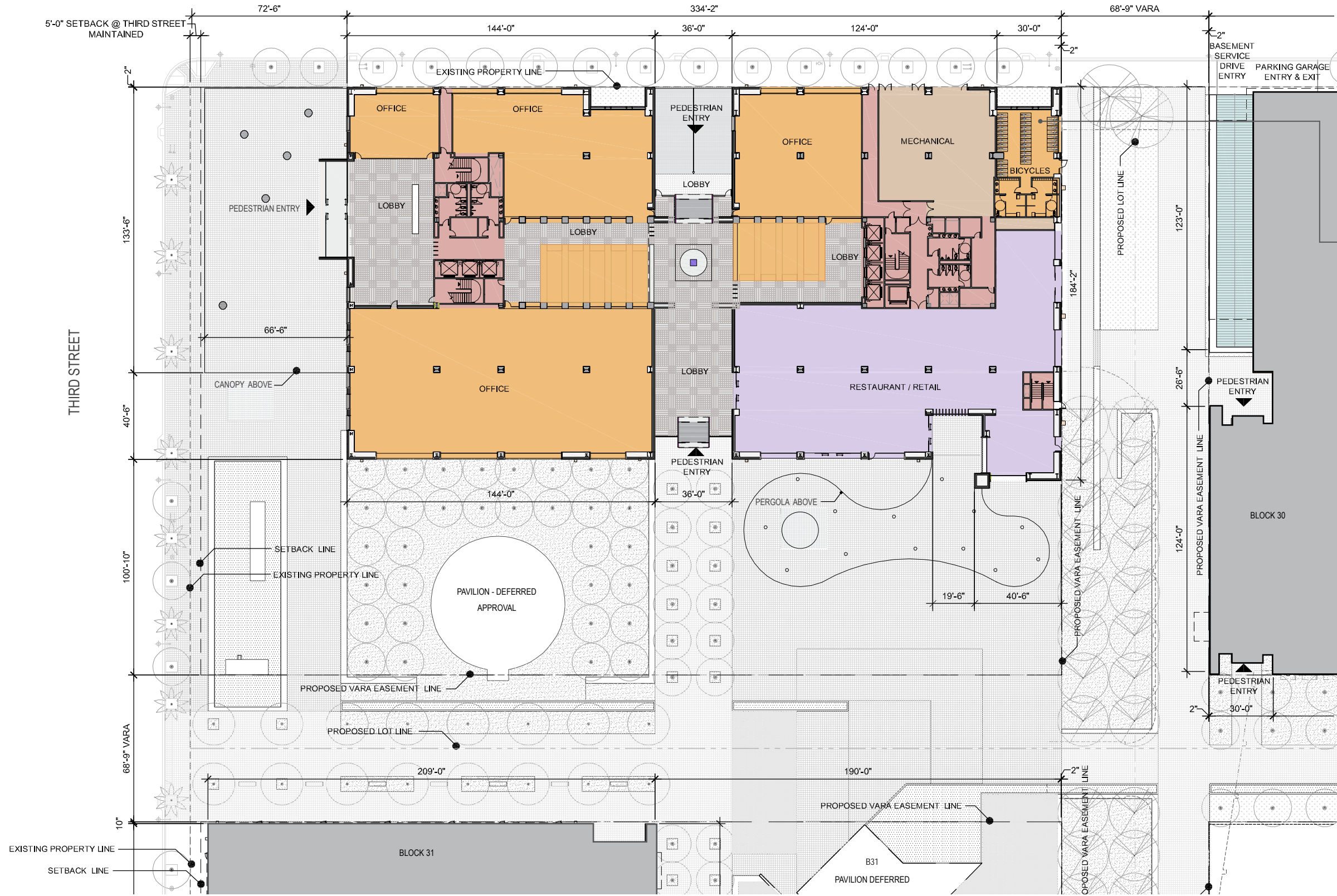


SOUTH STREET

LEGEND

- RESTAURANT / RETAIL
- OFFICE
- CORE
- LOBBY
- MECHANICAL

DOUBLE STACK RACKS FOR BICYCLE STORAGE



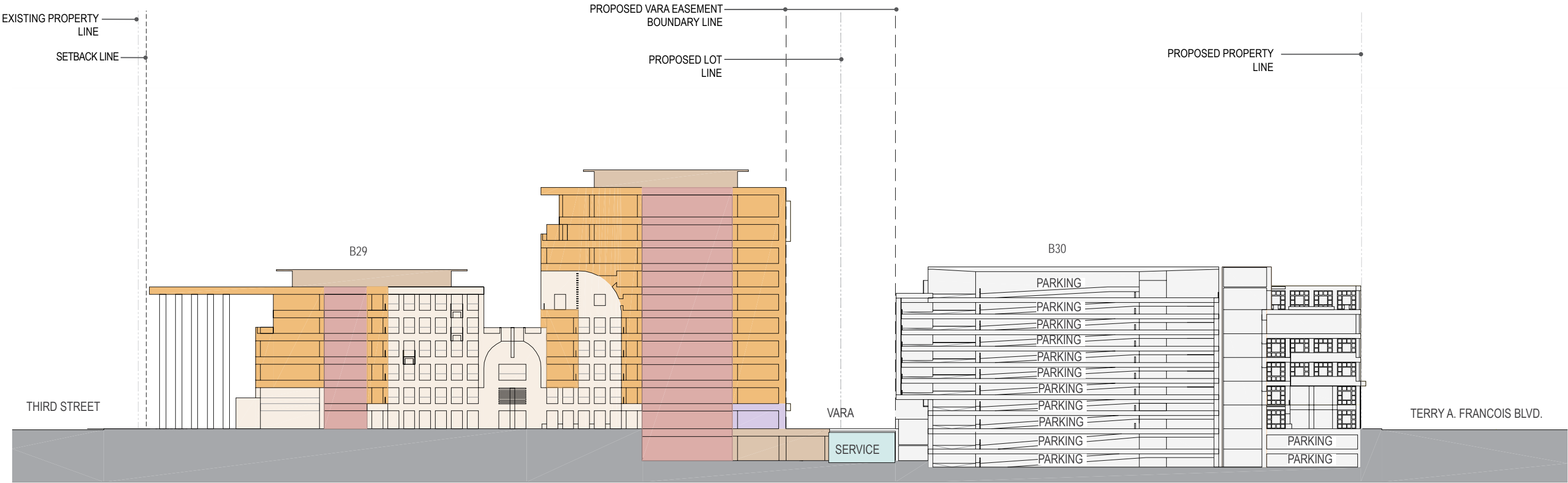
\*\* For additional Site information refer to - 'Combined Basic Concept & Schematic Design Submittal - Mission Bay South Blocks 29-32 Town Square and Site Landscape'

SCALE: 1:50





- LEGEND**
- RESTAURANT/ RETAIL
  - OFFICE
  - CORE
  - ATRIUM
  - MECHANICAL
  - SERVICE TUNNEL



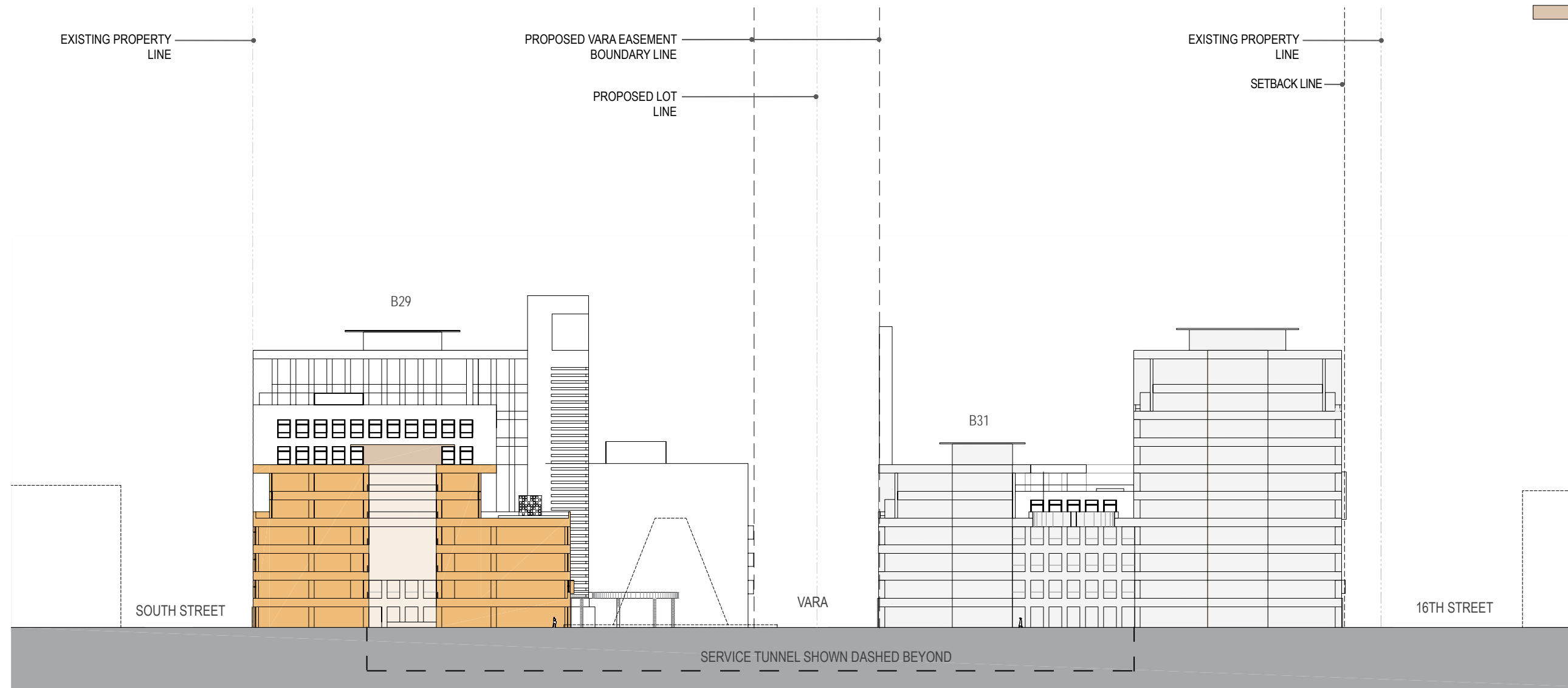
SECTION: BLOCKS 29 + 30 - OLIVE & PURPLE BUILDINGS - EAST-WEST SECTION





**LEGEND**

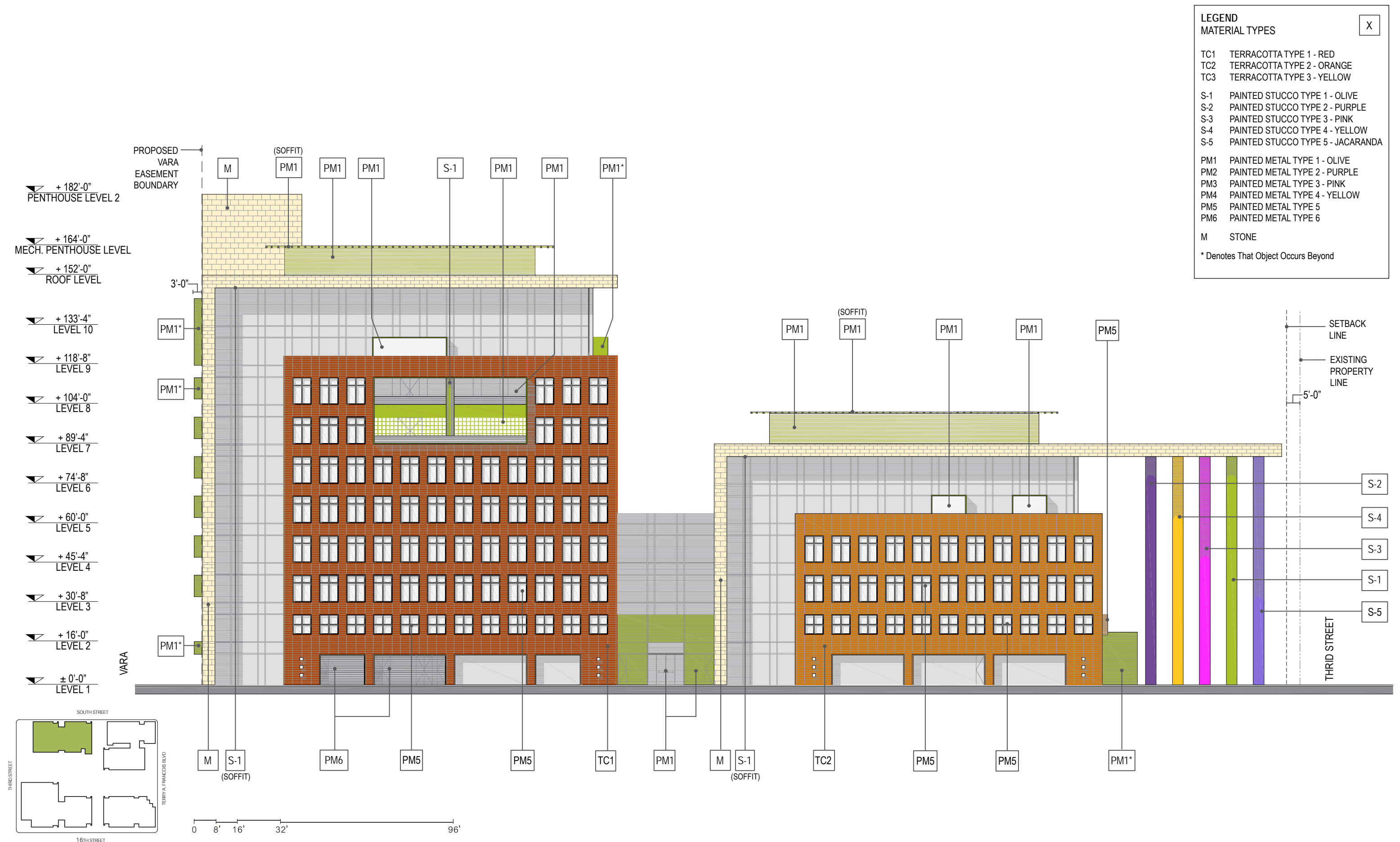
- OFFICE
- ATRIUM
- MECHANICAL



SECTION : BLOCKS 29 + 31 - OLIVE & PINK BUILDINGS - NORTH-SOUTH SECTION

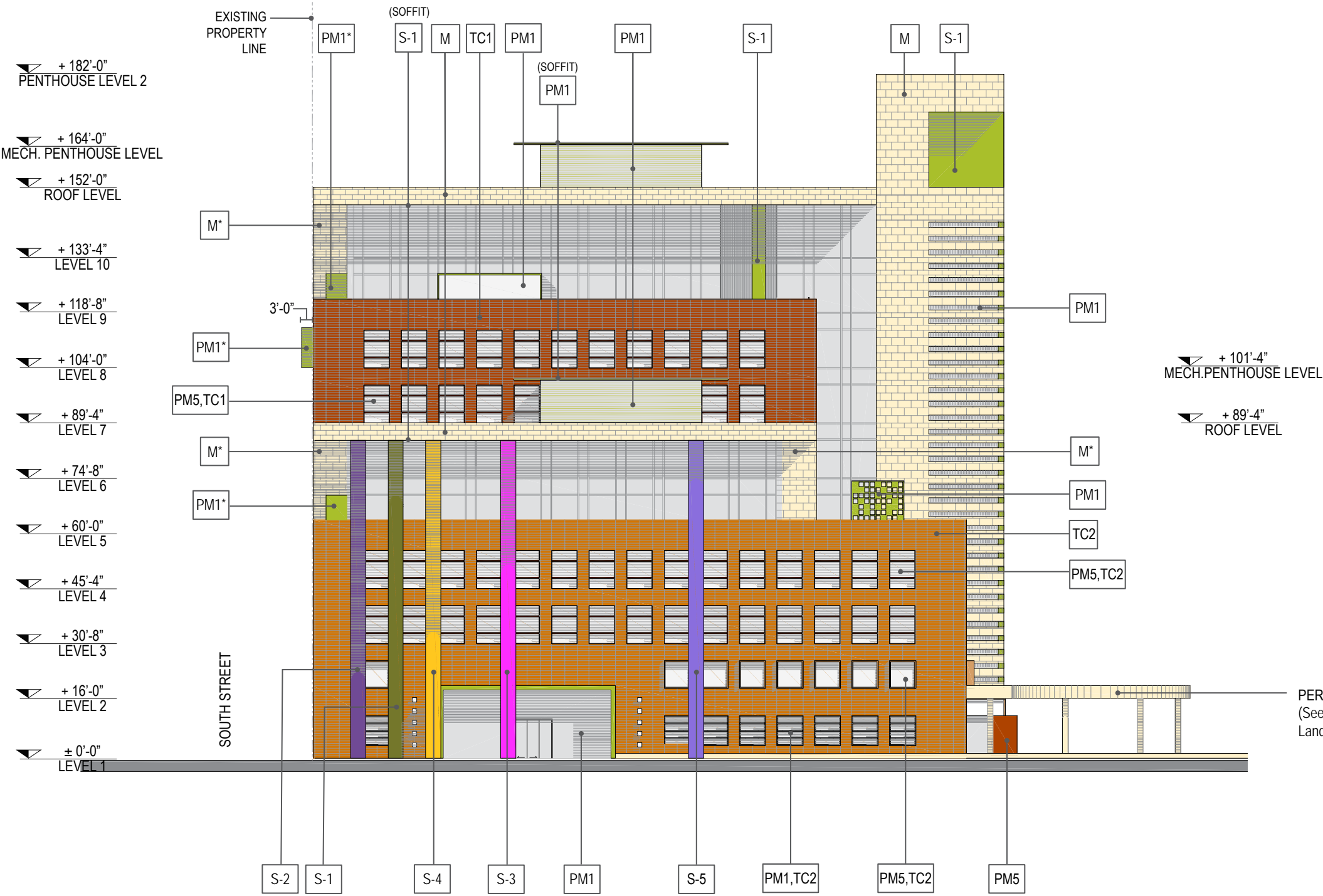








LEGEND		X
MATERIAL TYPES		
TC1	TERRACOTTA TYPE 1 - RED	
TC2	TERRACOTTA TYPE 2 - ORANGE	
TC3	TERRACOTTA TYPE 3 - YELLOW	
S-1	PAINTED STUCCO TYPE 1 - OLIVE	
S-2	PAINTED STUCCO TYPE 2 - PURPLE	
S-3	PAINTED STUCCO TYPE 3 - PINK	
S-4	PAINTED STUCCO TYPE 4 - YELLOW	
S-5	PAINTED STUCCO TYPE 5 - JACARANDA	
PM1	PAINTED METAL TYPE 1 - OLIVE	
PM2	PAINTED METAL TYPE 2 - PURPLE	
PM3	PAINTED METAL TYPE 3 - PINK	
PM4	PAINTED METAL TYPE 4 - YELLOW	
PM5	PAINTED METAL TYPE 5	
PM6	PAINTED METAL TYPE 6	
M	STONE	
* Denotes That Object Occurs Beyond		





MATERIALS & COLOR

The proposed materials for the new Mission Bay Global Headquarters Complex are a rich mix that will help create the image and identity for the new development. The primary exterior materials are a combination of light colored stone and unglazed terracotta panels in a range of closely related hues: red, orange and yellow. Bolder color accents in stucco or glazed tile will add interest and distinct identity to the buildings, each of which is designated by its accent color:

B29- Olive Building

B30- Purple Building

B31- Pink Building

B32- Yellow Building

The basic approach to use of these materials is that the stone forms the major “folded plane” elements that typically appear as an inverted “L” shape sheltering large glazed areas, the terracotta typically appears with punched openings, and the featured colors highlight special elements such as entries, balconies, and accent walls.

The proposed terracotta skin is a new adaptation of a traditional material. Its application uses rain-screen principles and a pressure equalized airspace and insulation directly behind the façade to reject water and improve thermal performance of the wall.

B29 Materials and Colors

Olive Building at Block 29 has a perforated stone folded plane which rises from the Vara and forms a roof canopy, supported by circular colored columns at the main entry on Third Street. The exterior skin is a composition of curtainwall glazed areas and terracotta with punched openings. The Olive accent color appears in special elements such as entries, balcony walls, and the underside of the roof.



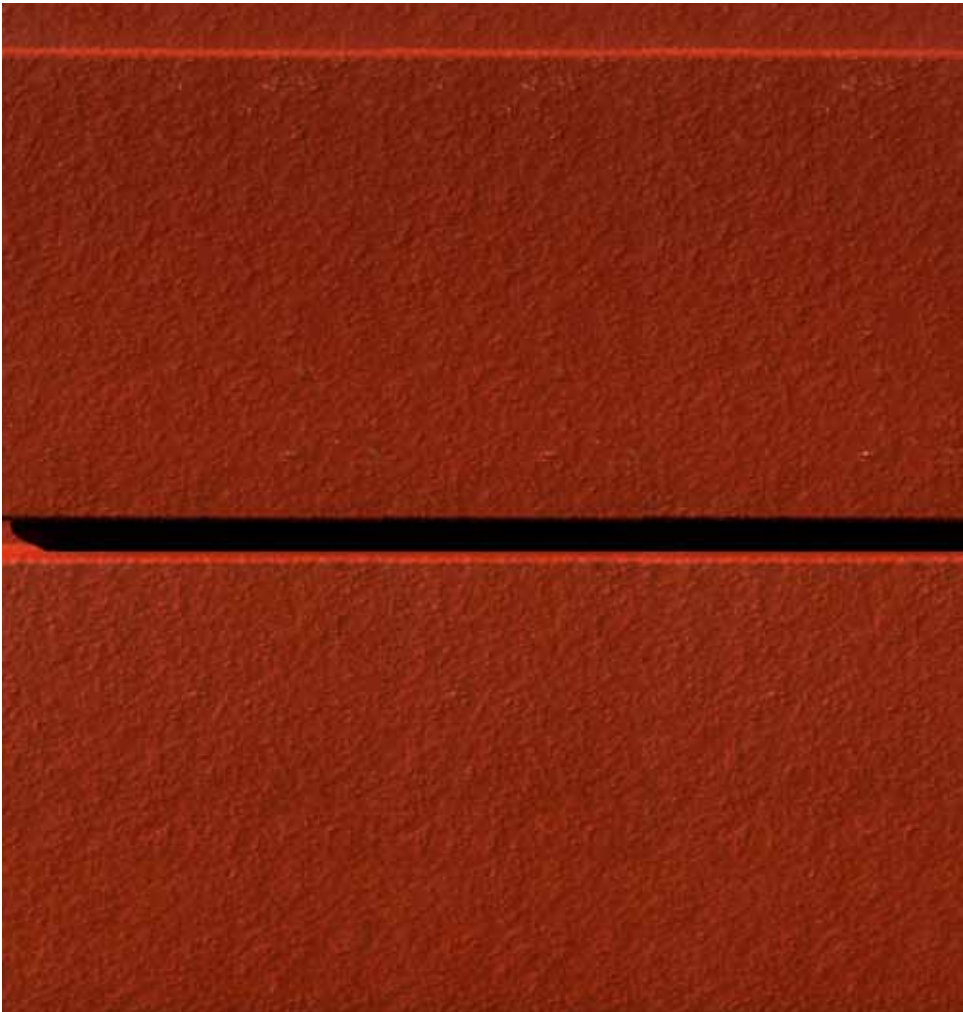
SAMPLE INSTALLATION



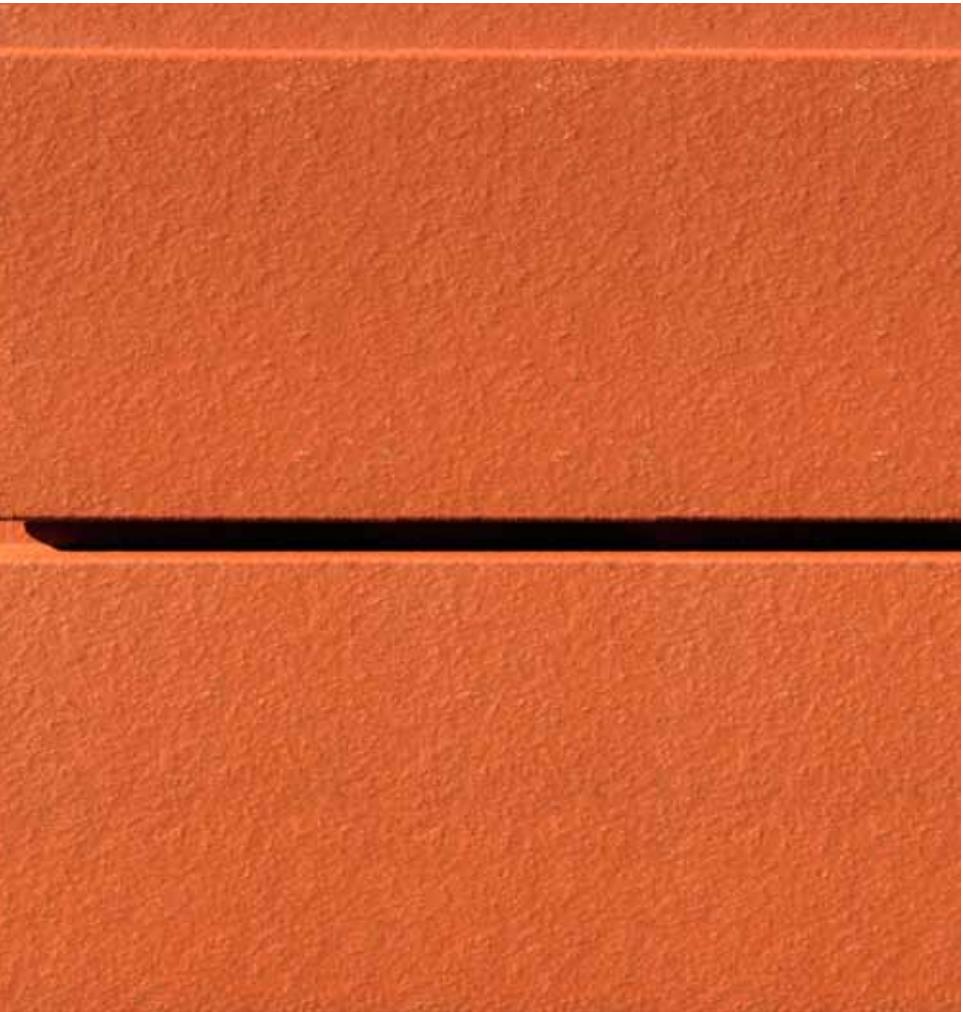
M STONE  
NATURAL MATERIAL WHICH MAY VARY IN COLOR AND TONE - REFER TO 'SAMPLE  
INSTALLATION' ILLUSTRATION.

STONE





TC1 TERRACOTTA TYPE 1 - RED



TC2 TERRACOTTA TYPE 2 - ORANGE



S-5 PAINTED STUCCO TYPE 5 -



S-4 PAINTED STUCCO TYPE 4 - YELLOW



S-3 PAINTED STUCCO TYPE 3 - PINK



S-2 PAINTED STUCCO TYPE 2 - PURPLE



S-1 PAINTED STUCCO TYPE 1 - OLIVE



CLEAR GLASS



PM-6 PAINTED METAL TYPE 6 - NATURAL



PM5 PAINTED METAL TYPE 5



PM1 PAINTED METAL TYPE 1 - OLIVE

TERRACOTTA

GLASS, ACCENT MATERIALS AND METAL





VIEW OF BUILDING 29 - OLIVE FROM 3RD STREET & SOUTH STREET LOOKING SOUTH-EAST\*  
 (Illustrations are provided for information only. Scope of work and material designations are to be per building elevation.)  
 ( Retail signage is for illustrative purposes and is a deferred item and all signage will be consistent with Mission Bay South Signage Master Plan)

*\*All landscape is only illustrative. Specific landscape details should be referred to in the Combined Basic Concept & Schematic Design Submittal – Mission Bay South Blocks 29-32 Town Square and Site Landscape book.*





PAVILION DEFERRED

VIEW OF BUILDING 29 - OLIVE FROM VARA LOOKING NORTH-EAST\*

(Illustrations are provided for information only. Scope of work and material designations are to be per building elevation.)

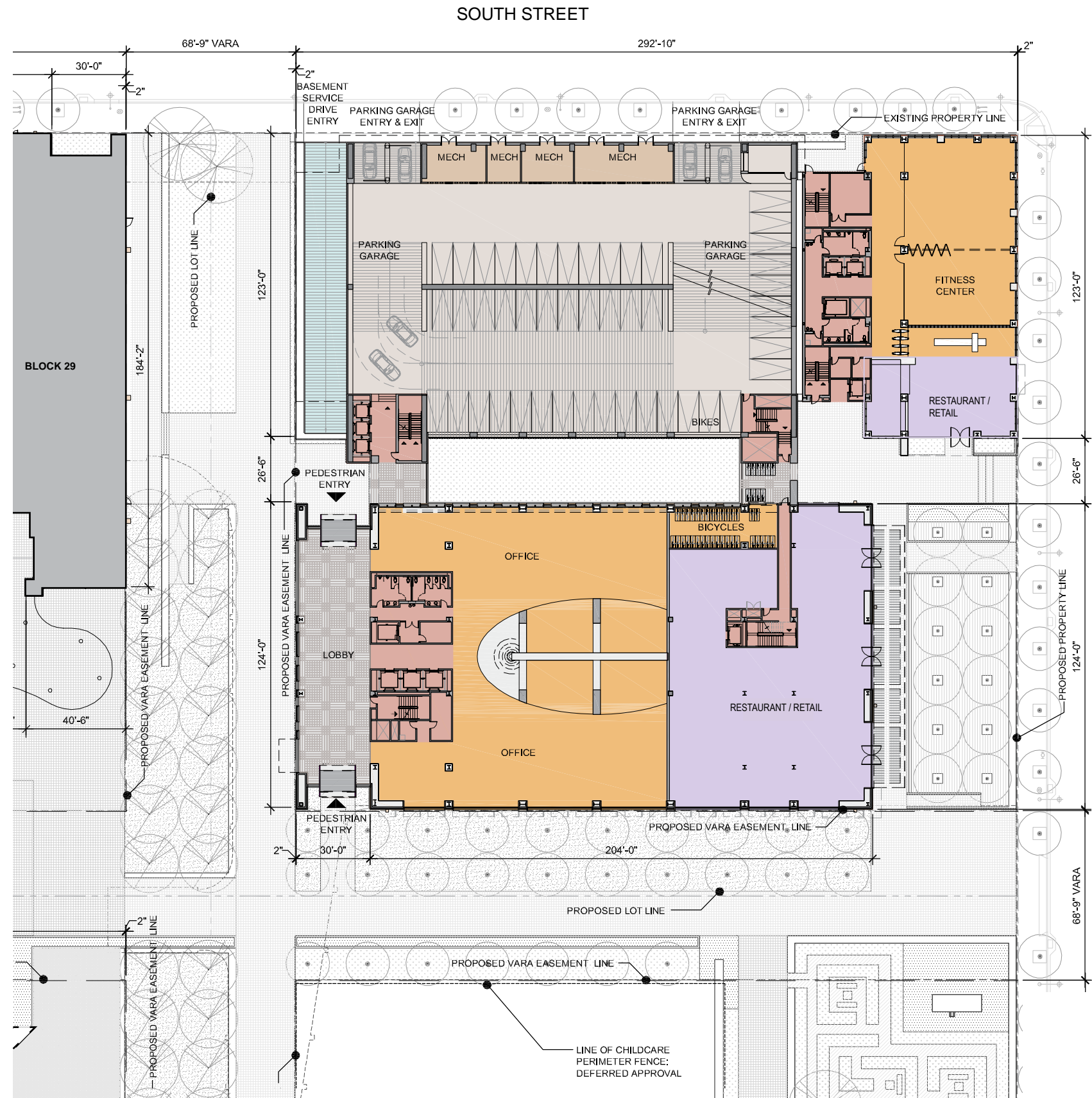
(Retail signage is for illustrative purposes and is a deferred item and all signage will be consistent with Mission Bay South Signage Master Plan)

*\*All landscape is only illustrative. Specific landscape details should be referred to in the Combined Basic Concept & Schematic Design Submittal – Mission Bay South Blocks 29-32 Town Square and Site Landscape book.*









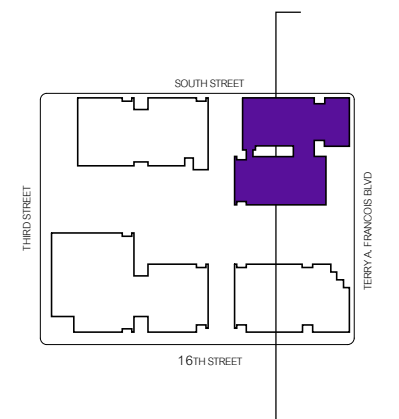
\*\* For additional Site information refer to - 'Combined Basic Concept & Schematic Design Submittal - Mission Bay South Blocks 29-32 Town Square and Site Landscape'

SCALE: 1:50

N



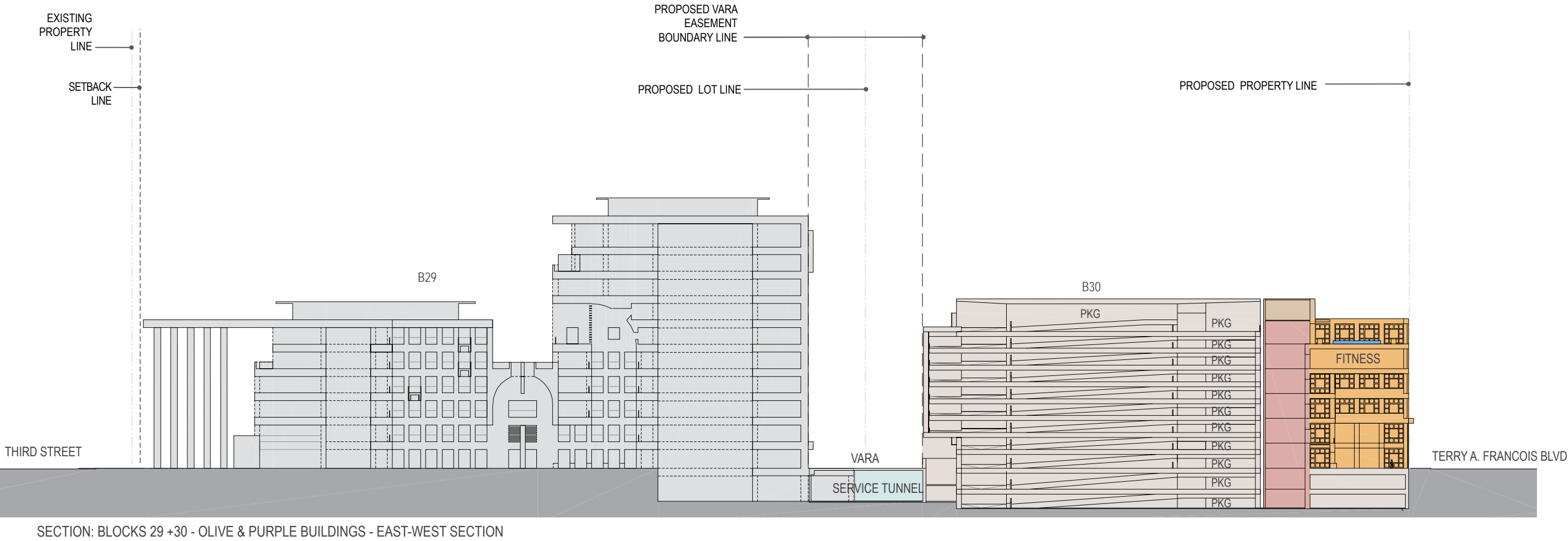
OFFICE/ ANCILLARY USE	
PKG	PARKING
ATRIUM	
MECHANICAL	



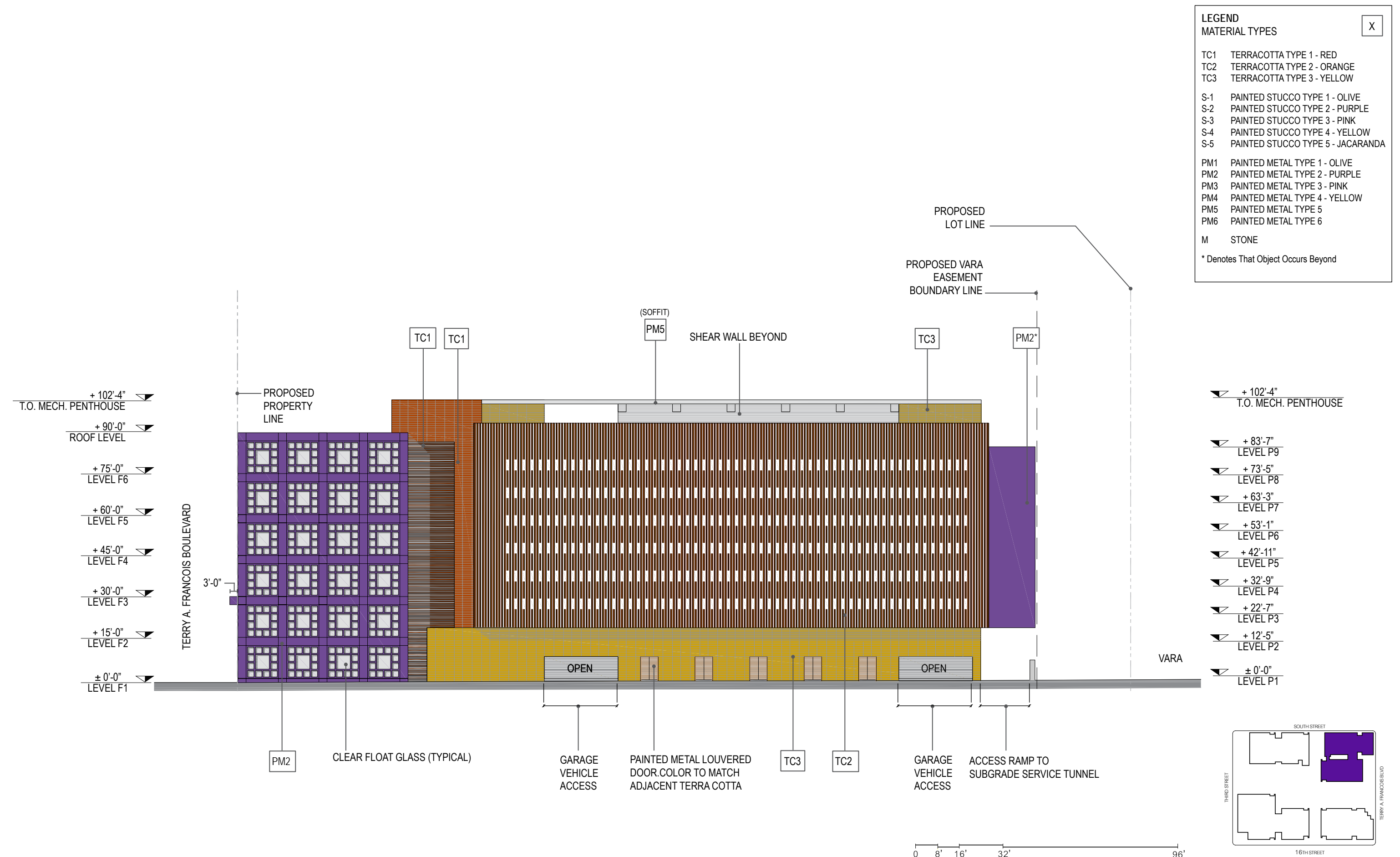


**LEGEND**

- PKG PARKING
- CORE
- MECHANICAL
- OFFICE/ANCILLARY USE
- SERVICE TUNNEL

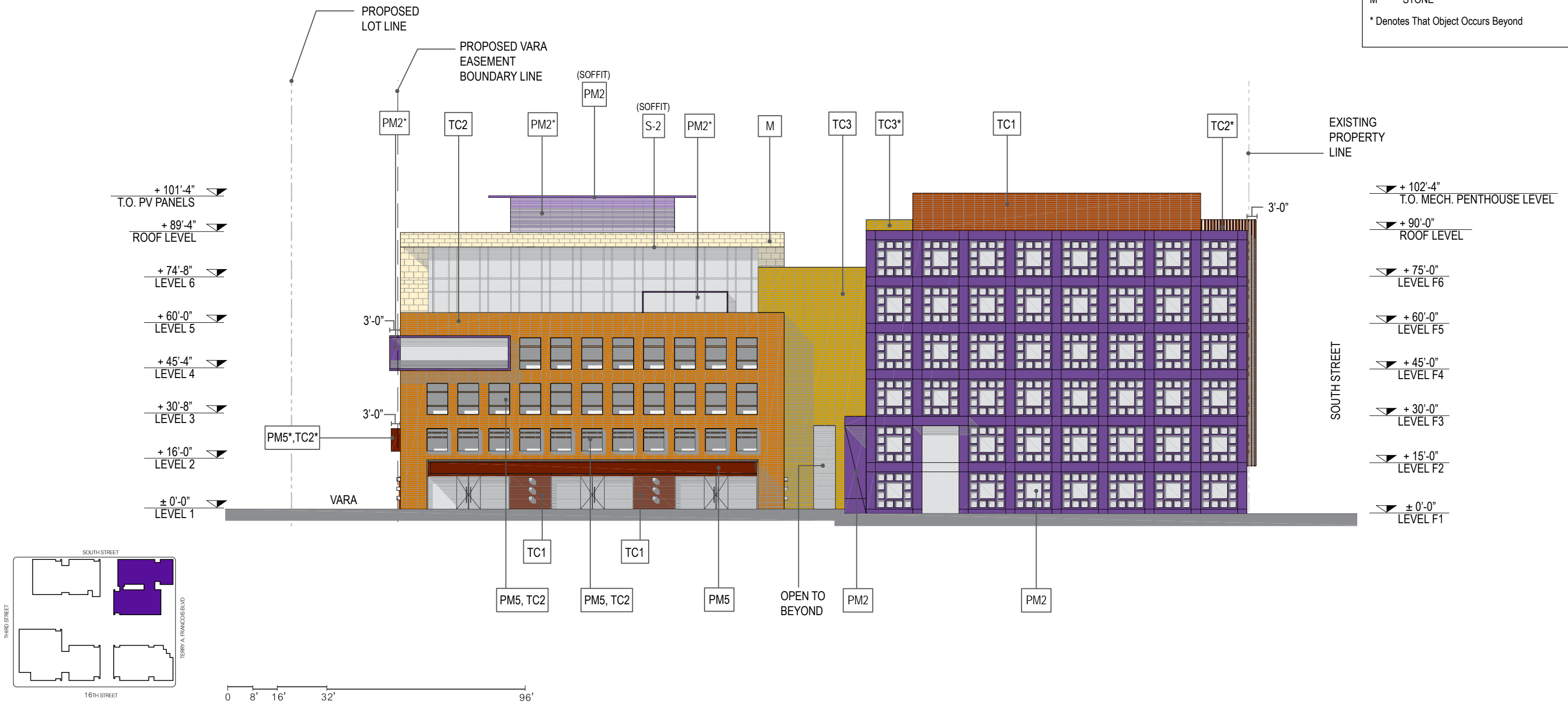








LEGEND		X
MATERIAL TYPES		
TC1	TERRACOTTA TYPE 1 - RED	
TC2	TERRACOTTA TYPE 2 - ORANGE	
TC3	TERRACOTTA TYPE 3 - YELLOW	
S-1	PAINTED STUCCO TYPE 1 - OLIVE	
S-2	PAINTED STUCCO TYPE 2 - PURPLE	
S-3	PAINTED STUCCO TYPE 3 - PINK	
S-4	PAINTED STUCCO TYPE 4 - YELLOW	
S-5	PAINTED STUCCO TYPE 5 - JACARANDA	
PM1	PAINTED METAL TYPE 1 - OLIVE	
PM2	PAINTED METAL TYPE 2 - PURPLE	
PM3	PAINTED METAL TYPE 3 - PINK	
PM4	PAINTED METAL TYPE 4 - YELLOW	
PM5	PAINTED METAL TYPE 5	
PM6	PAINTED METAL TYPE 6	
M	STONE	
* Denotes That Object Occurs Beyond		





MATERIALS & COLOR

The proposed materials for the new Mission Bay Global Headquarters Complex are a rich mix that will help create the image and identity for the new development. The primary exterior materials are a combination of light colored stone and unglazed terracotta panels in a range of closely related hues: red, orange and yellow. Bolder color accents in stucco or glazed tile will add interest and distinct identity to the buildings, each of which is designated by its accent color:

B29- Olive Building

B30- Purple Building

B31- Pink Building

B32- Yellow Building

The basic approach to use of these materials is that the stone forms the major “folded plane” elements that typically appear as an inverted “L” shape sheltering large glazed areas, the terracotta typically appears with punched openings, and the featured colors highlight special elements such as entries, balconies, and accent walls.

The proposed terracotta skin is a new adaptation of a traditional material. Its application uses rain-screen principles and a pressure equalized airspace and insulation directly behind the façade to reject water and improve thermal performance of the wall.

B30 Materials and Colors

Purple Building at Block 30 has a perforated stone folded plane which rises from the Vara and forms a roof canopy that extends east toward the waterfront. The exterior skin is a composition of curtainwall glazed areas and terracotta with punched openings. The parking garage façades are also made of terracotta. The distinctive Purple accent color is used for the fitness center building at the northeast corner, and also appears in special elements such as entries, balcony walls, and the underside of the roof.



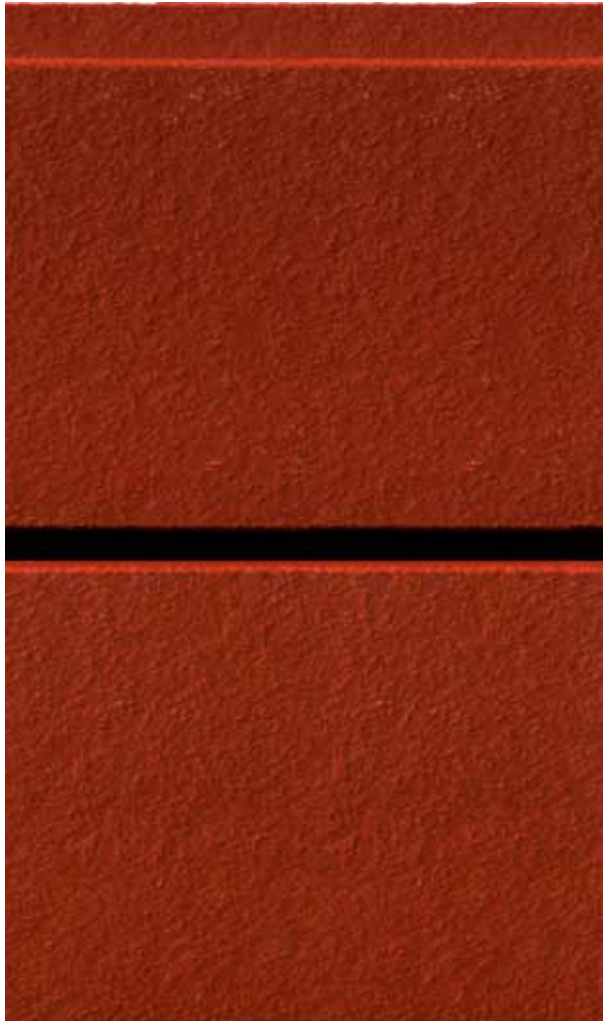
SAMPLE INSTALLATION



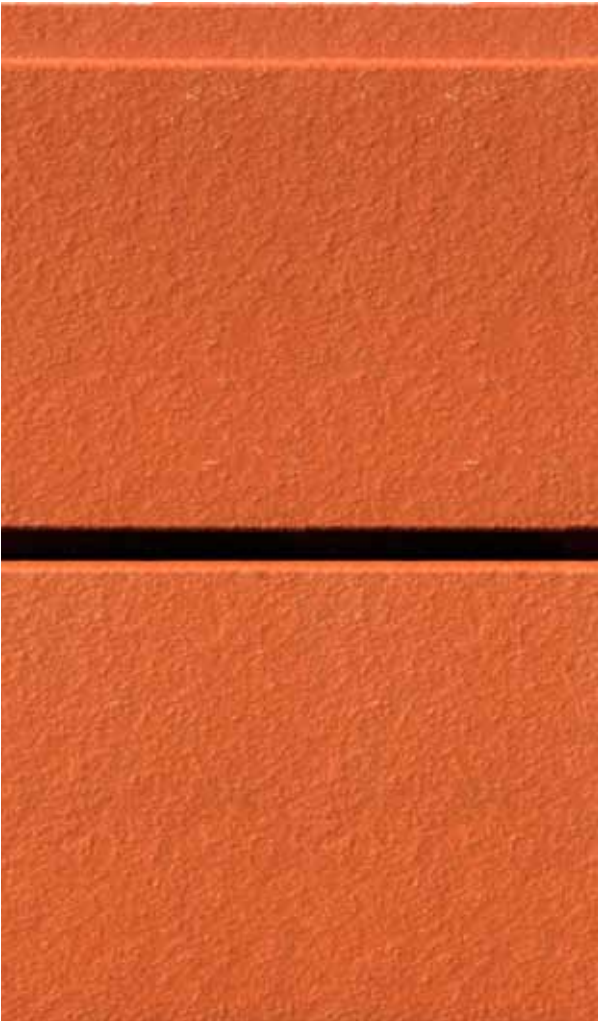
M STONE  
NATURAL MATERIAL WHICH MAY VARY IN COLOR AND TONE - REFER TO 'SAMPLE INSTALLATION' ILLUSTRATION.

STONE

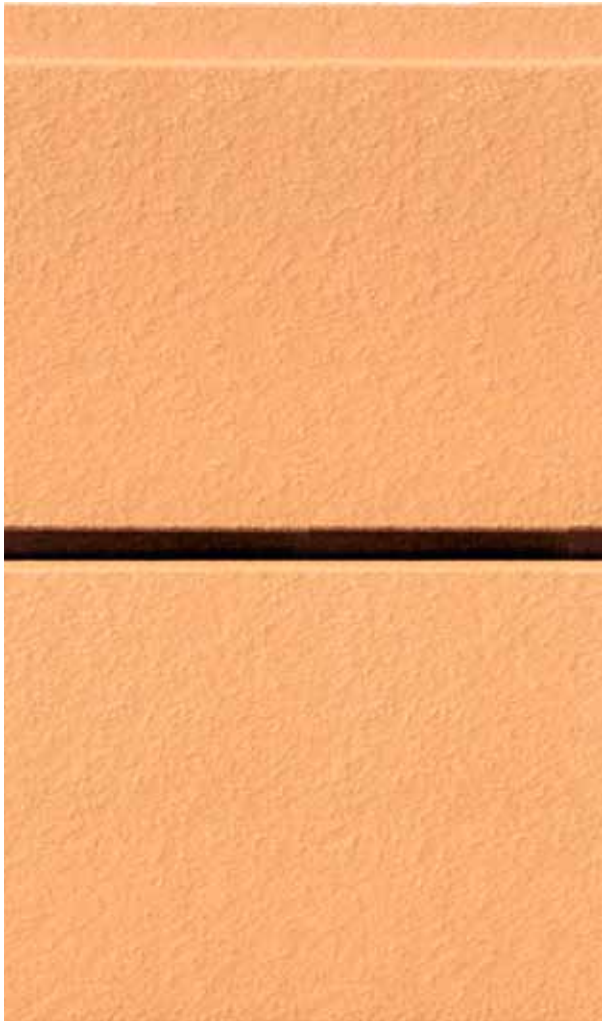




TC-1 TERRACOTTA TYPE 1 - RED



TC-2 TERRACOTTA TYPE 2 - ORANGE



TC-3 TERRACOTTA TYPE 3 - YELLOW

TERRACOTTA



CLEAR GLASS



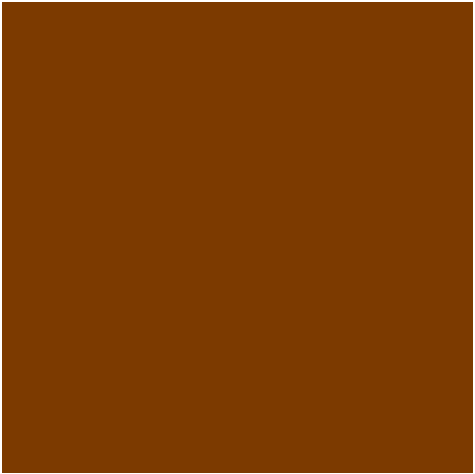
PM-6 PAINTED METAL TYPE 6 - NATURAL ALUMINUM



PM-2 PAINTED METAL TYPE 2 - PURPLE



S-2 PAINTED STUCCO TYPE 2 - PURPLE



PM-5 PAINTED METAL TYPE 5

GLASS, ACCENT MATERIALS AND METAL





VIEW OF BUILDING 30 - PURPLE FROM TERRY FRANCOIS LOOKING NORTH-WEST\*  
 (Illustrations are provided for information only. Scope of work and material designations are to be per building elevation. Building in background at Block 29 not shown for illustrative purposes.)

*\*All landscape is only illustrative. Specific landscape details should be referred to in the Combined Basic Concept & Schematic Design Submittal – Mission Bay South Blocks 29-32 Town Square and Site Landscape book.*





VIEW OF BUILDING 30 - PURPLE FROM SOUTH STREET LOOKING SOUTH\*

( Illustrations are provided for information only. Scope of work and material designations are to be per building elevation. Building in foreground at Block 28 not shown for illustrative purposes.)

*\*All landscape is only illustrative. Specific landscape details should be referred to in the Combined Basic Concept & Schematic Design Submittal – Mission Bay South Blocks 29-32 Town Square and Site Landscape book.*





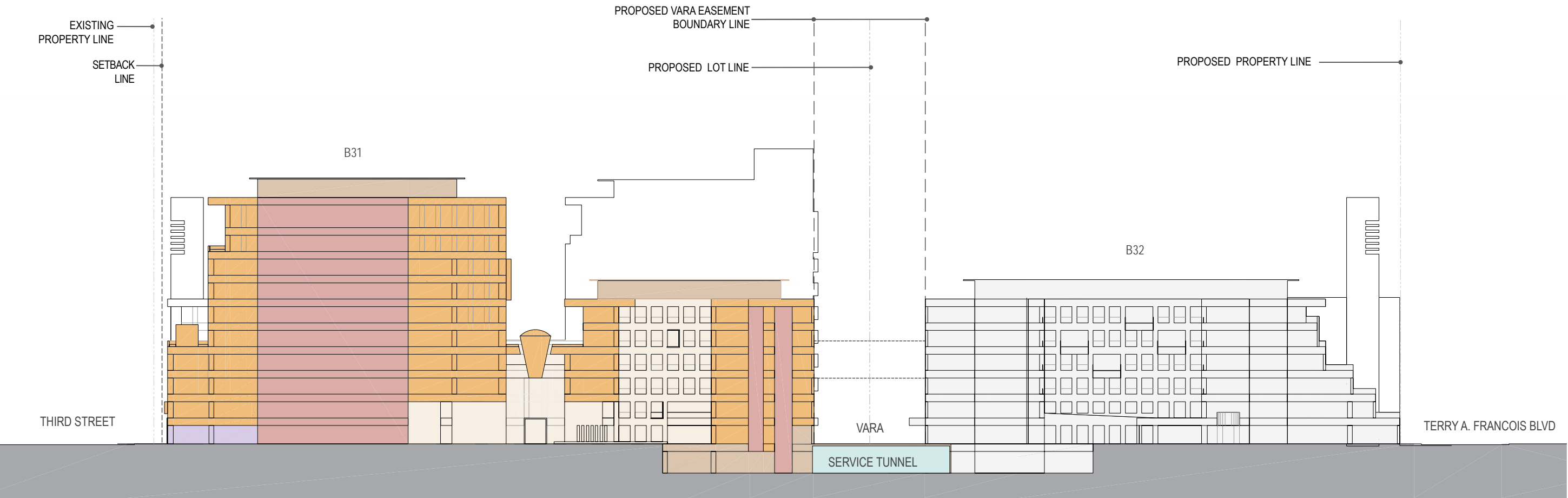




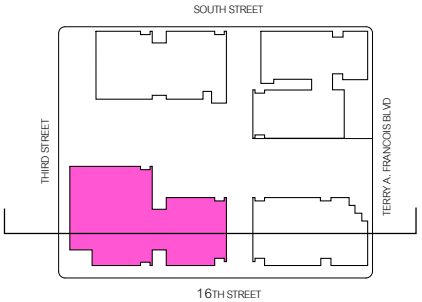


LEGEND

- OFFICE/ ANCILLARY USE
- CORE
- ATRIUM
- SERVICE/ MECHANICAL
- RESTAURANT / RETAIL
- SERVICE TUNNEL



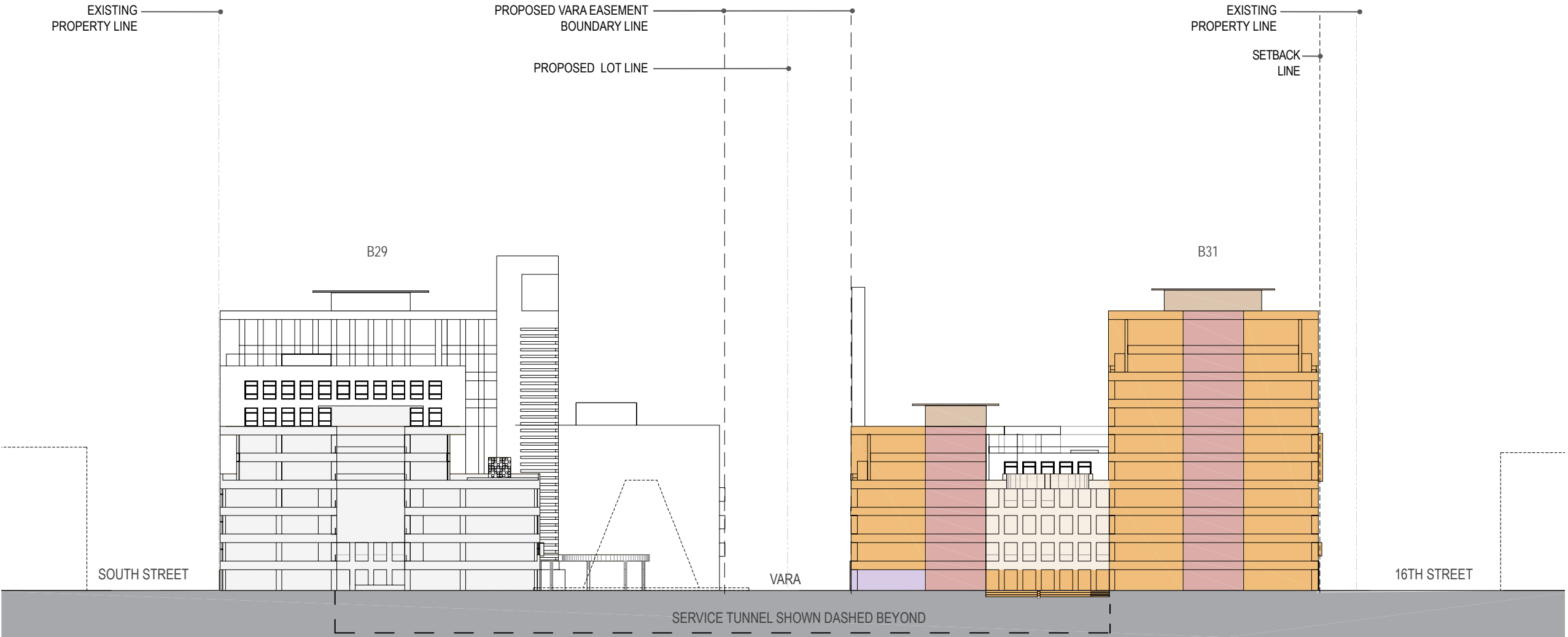
SECTION: BLOCKS 31 +32 - PINK & YELLOW BUILDINGS - EAST-WEST SECTION



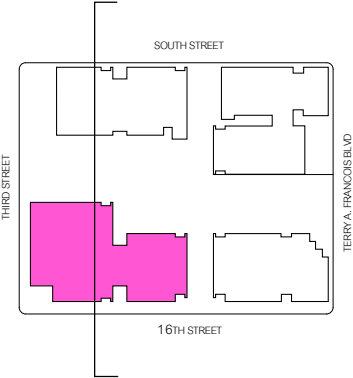


**LEGEND**

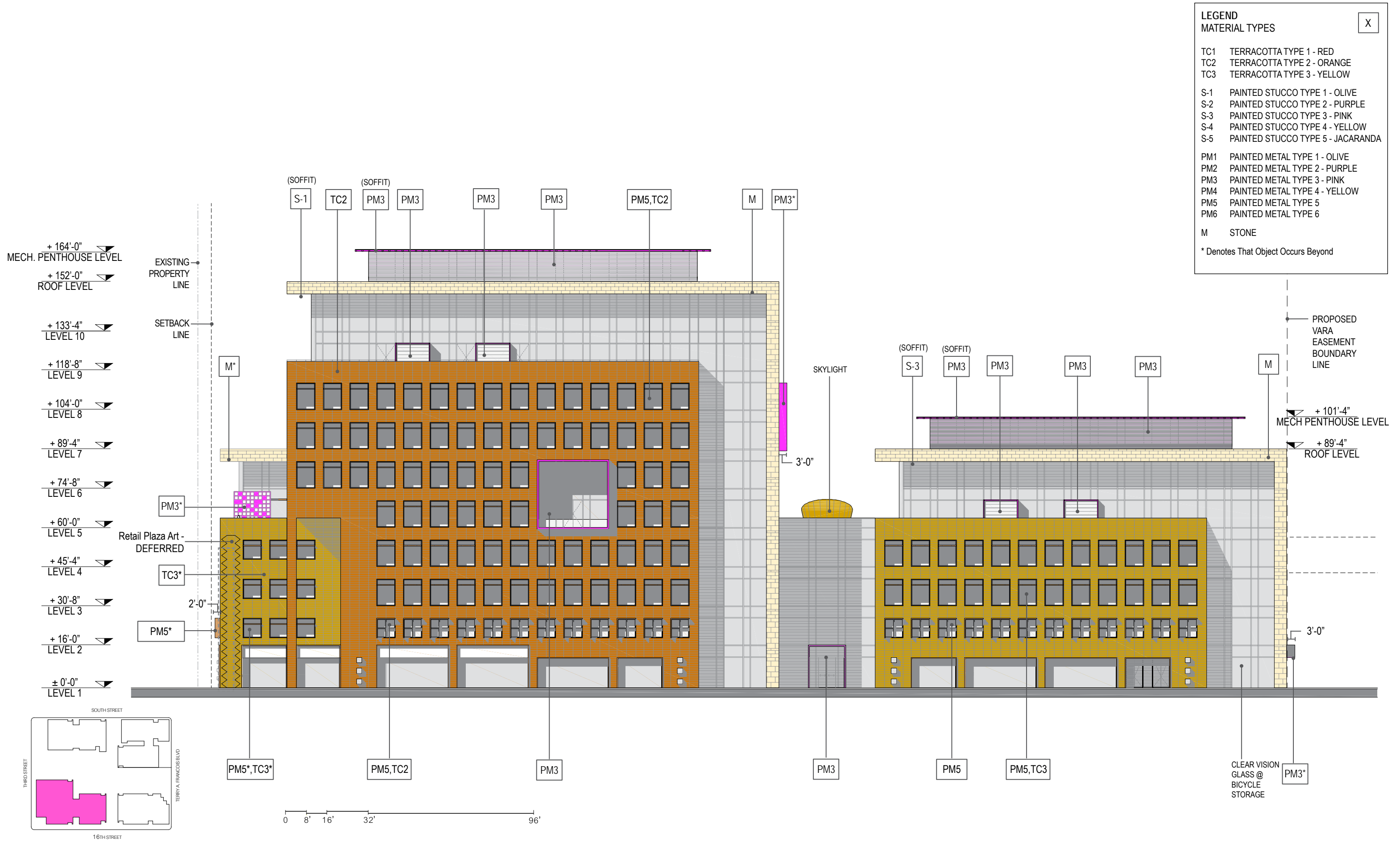
- OFFICE/ ANCILLARY USE
- ATRIUM
- MECHANICAL
- RESTAURANT / RETAIL



SECTION: BLOCKS 29 +32 - OLIVE & PINK BUILDINGS - NORTH -SOUTH SECTION









X

PM1	PAINTED METAL TYPE 1 - OLIVE
PM2	PAINTED METAL TYPE 2 - PURPLE
PM3	PAINTED METAL TYPE 3 - PINK
PM4	PAINTED METAL TYPE 4 - YELLOW
PM5	PAINTED METAL TYPE 5
PM6	PAINTED METAL TYPE 6

\* Denotes That Object Occurs Beyond





MATERIALS & COLOR

The proposed materials for the new Mission Bay Global Headquarters Complex are a rich mix that will help create the image and identity for the new development. The primary exterior materials are a combination of light colored stone and unglazed terracotta panels in a range of closely related hues: red, orange and yellow. Bolder color accents in stucco or glazed tile will add interest and distinct identity to the buildings, each of which is designated by its accent color:

B29- Olive Building

B30- Purple Building

B31- Pink Building

B32- Yellow Building

The basic approach to use of these materials is that the stone forms the major “folded plane” elements that typically appear as an inverted “L” shape sheltering large glazed areas, the terracotta typically appears with punched openings, and the featured colors highlight special elements such as entries, balconies, and accent walls.

The proposed terracotta skin is a new adaptation of a traditional material. Its application uses rain-screen principles and a pressure equalized airspace and insulation directly behind the façade to reject water and improve thermal performance of the wall.

B31 Materials and Colors

Pink Building at Block 31 building is a composition which, viewed from the south or north appears as yellow terracotta for the lower building and orange terracotta for the 10 story tower. Viewed from the Vara, it has a perforated stone folded plane that forms a roof canopy. Curtainwall glazing marks major entrances as well as storefronts for retail and restaurant space at the ground level along Third Street and facing Town Square. The Pink accent color appears in special elements such as the Pavilion, entries, balcony walls, and the underside of the roof.



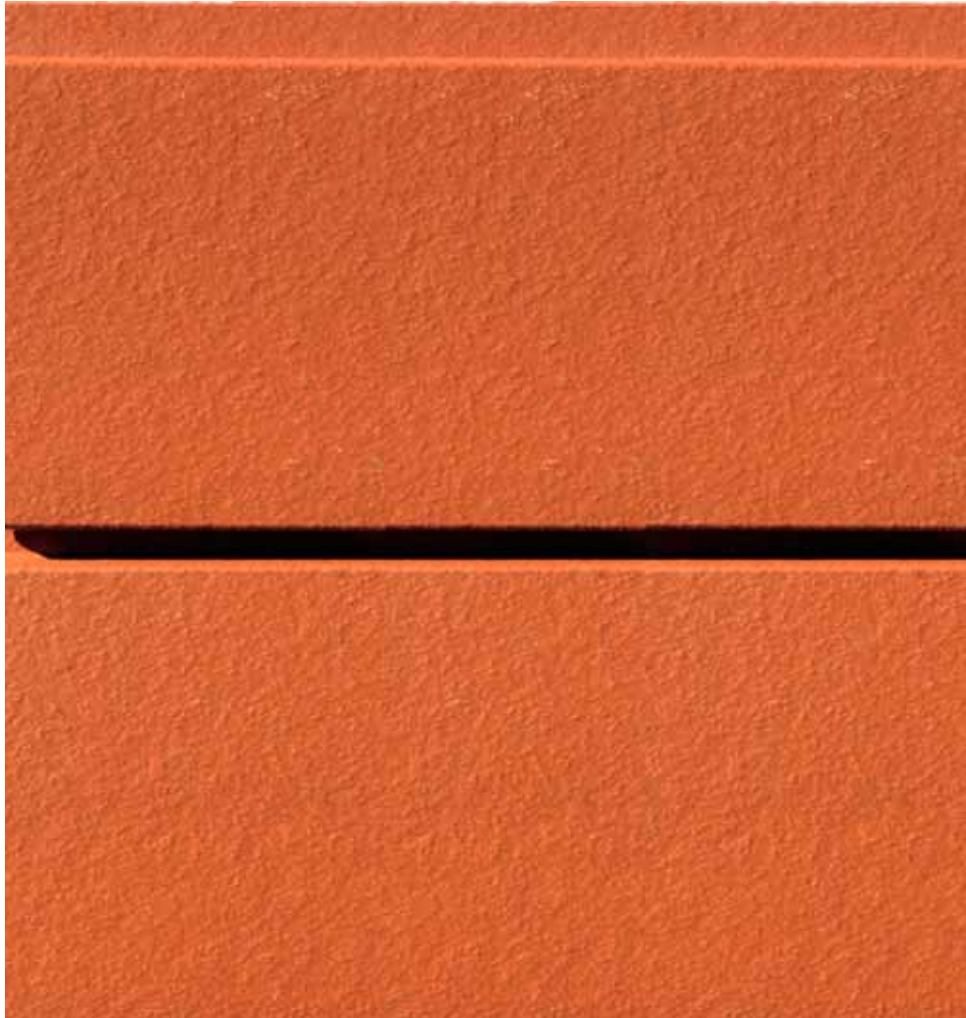
SAMPLE INSTALLATION



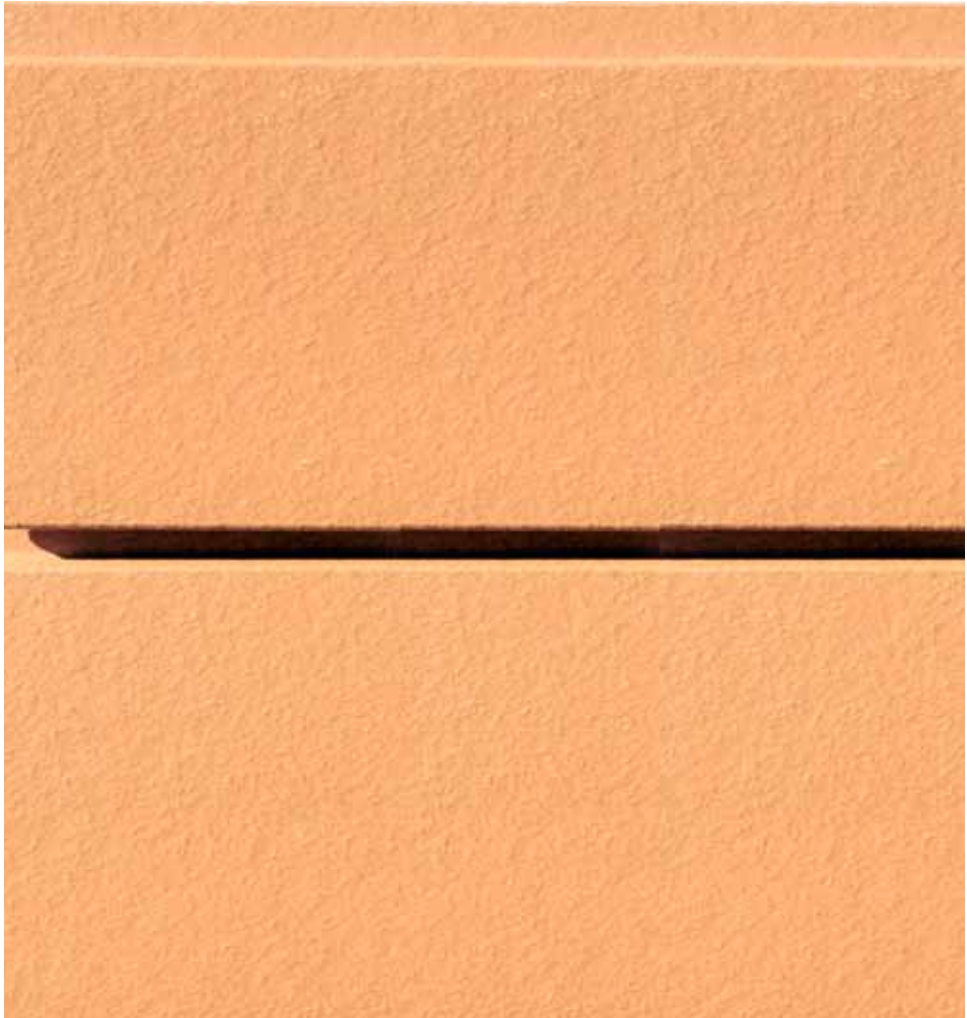
M STONE  
NATURAL MATERIAL WHICH MAY VARY IN COLOR AND TONE - REFER TO 'SAMPLE INSTALLATION' ILLUSTRATION.

STONE





TC2 TERRACOTTA TYPE 2 - ORANGE



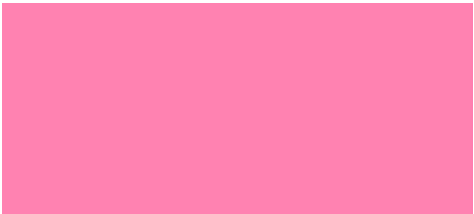
TC3 TERRACOTTA TYPE 3 - YELLOW



S-4 PAINTED STUCCO TYPE 4 - YELLOW



CLEAR GLASS



S-3 PAINTED STUCCO TYPE 3 - PINK



PM3 PAINTED METAL TYPE 3 - PINK



PM5 PAINTED METAL TYPE 5

TERRACOTTA

GLASS, ACCENT MATERIALS AND METAL





PUBLIC ART  
DEFERRED

VIEW OF BUILDING 31 - PINK FROM THE CORNER OF 3RD STREET AND 16TH STREET LOOKING NORTH-EAST\*  
( Illustrations are provided for information only. Scope of work and material designations are to be per building elevations.)  
( Retail signage is for illustrative purposes and is a deferred item and all signage will be consistent with Mission Bay South Signage Master Plan)

*\*(All landscape is only illustrative. Specific, landscape details should be referred to in the 'Combined Basic Concept & Schematic Design Submittal – Mission Bay South Blocks 29-32 Town Square and Site Landscape' book)*





B29 PAVILION  
DEFERRED

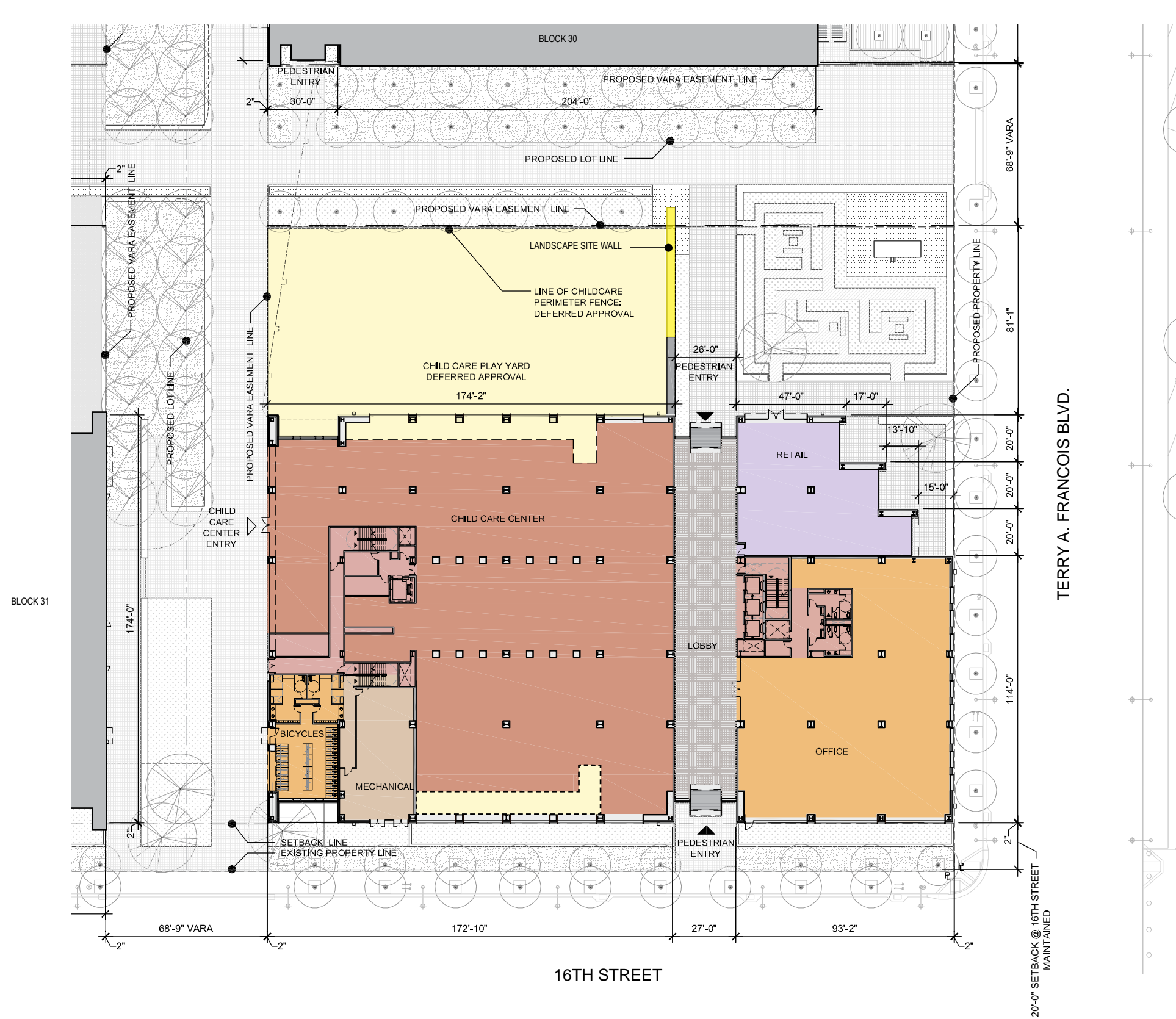
VIEW OF BUILDING 31 - PINK FROM 3RD STREET LOOKING SOUTH-EAST\*  
 (Illustrations are provided for information only. Scope of work and material designations are to be per building elevations.)  
 (Retail signage is for illustrative purposes and is a deferred item and all signage will be consistent with Mission Bay South Signage Master Plan)

*\*(All landscape is only illustrative. Specific, landscape details should be referred to in the 'Combined Basic Concept & Schematic Design Submittal – Mission Bay South Blocks 29-32 Town Square and Site Landscape' book)*





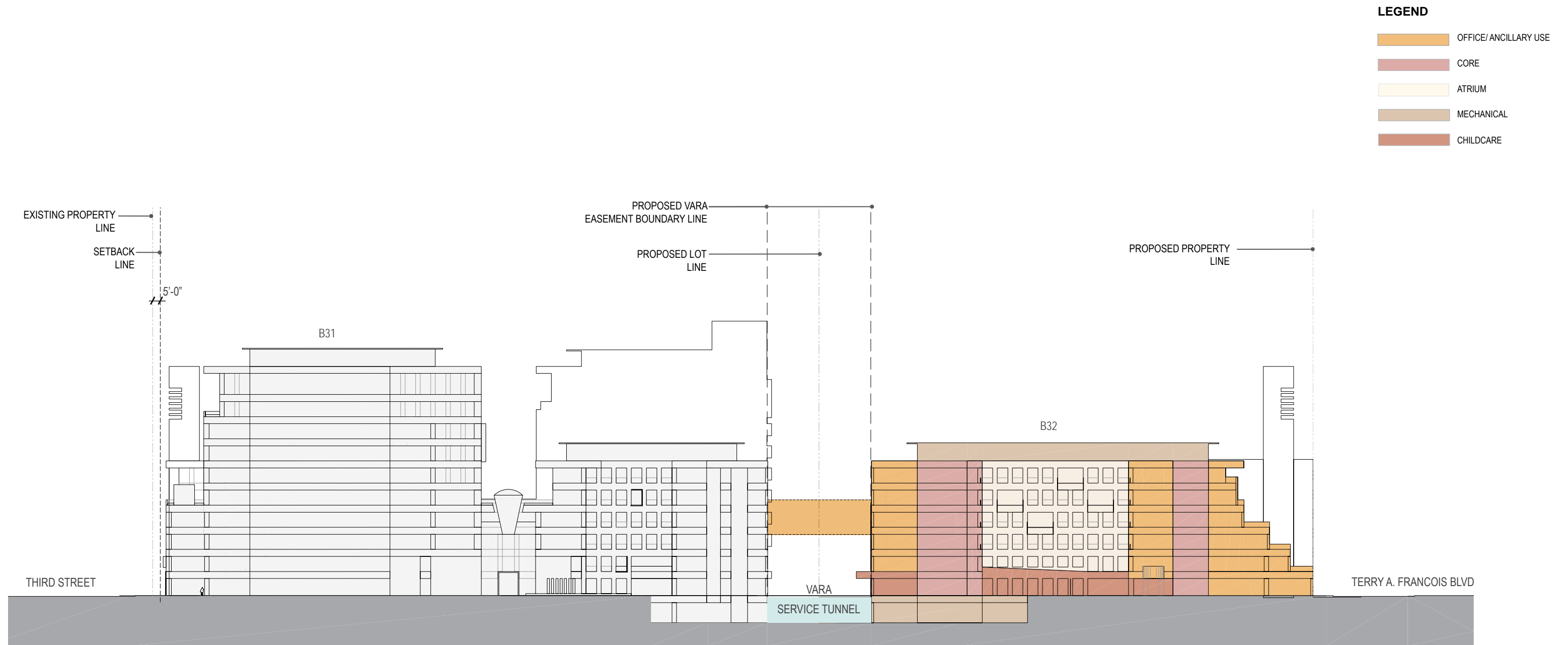




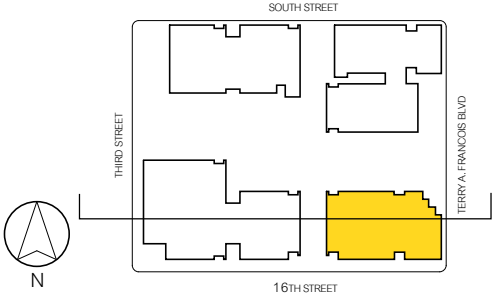
\*\* For additional Site information refer to - 'Combined Basic Concept & Schematic Design Submittal - Mission Bay South Blocks 29-32 Town Square and Site Landscape'

SCALE: 1:50



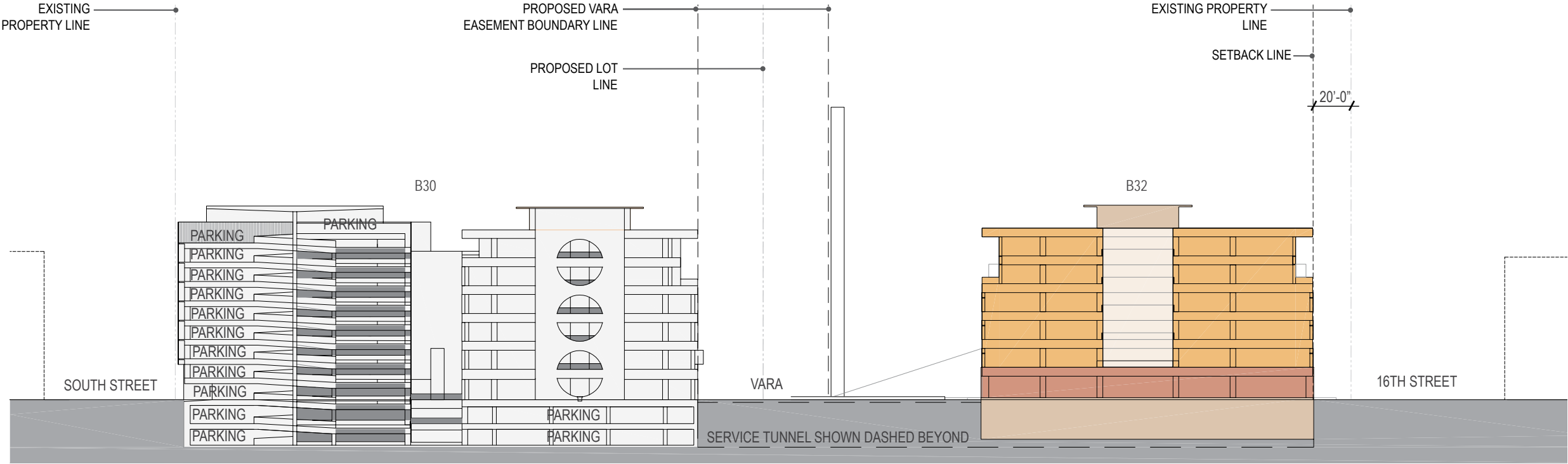


SECTION: BLOCKS 31 + 32- PINK & YELLOW BUILDINGS - EAST-WEST SECTION





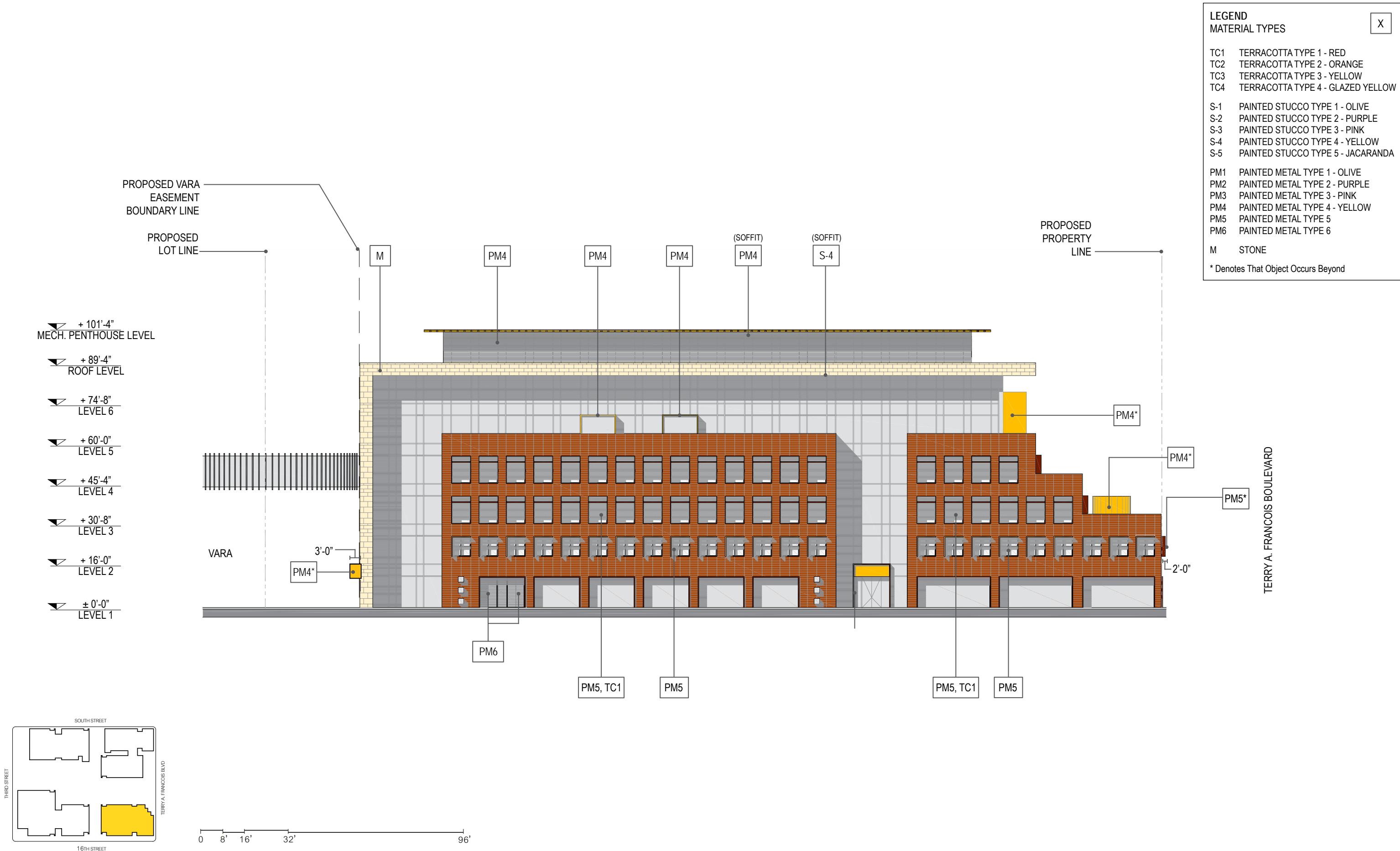
- LEGEND**
- OFFICE / ANCILLARY USE
  - ATRIUM
  - MECHANICAL
  - CHILDCARE



SECTION: BLOCKS 30 + 32- PURPLE & YELLOW BUILDINGS - NORTH-SOUTH SECTION













MATERIALS & COLOR

The proposed materials for the new Mission Bay Global Headquarters Complex are a rich mix that will help create the image and identity for the new development. The primary exterior materials are a combination of light colored stone and unglazed terracotta panels in a range of closely related hues: red, orange and yellow. Bolder color accents in stucco or glazed tile will add interest and distinct identity to the buildings, each of which is designated by its accent color:

B29- Olive Building

B30- Purple Building

B31- Pink Building

B32- Yellow Building

The basic approach to use of these materials is that the stone forms the major “folded plane” elements that typically appear as an inverted “L” shape sheltering large glazed areas, the terracotta typically appears with punched openings, and the featured colors highlight special elements such as entries, balconies, and accent walls.

The proposed terracotta skin is a new adaptation of a traditional material. Its application uses rain-screen principles and a pressure equalized airspace and insulation directly behind the façade to reject water and improve thermal performance of the wall.

B32 Materials and Colors

Yellow Building Block 32 provides a contrast to the other Town Square buildings, with its darker red terracotta façade terracing down to the waterfront at the east. From the west, it has a perforated stone folded plane which begins at the Vara and forms a roof canopy. Large glazed areas signal the main building entries at north and south. The Yellow accent color appears in special elements such as entries, projecting meeting rooms, and the underside of the roof.



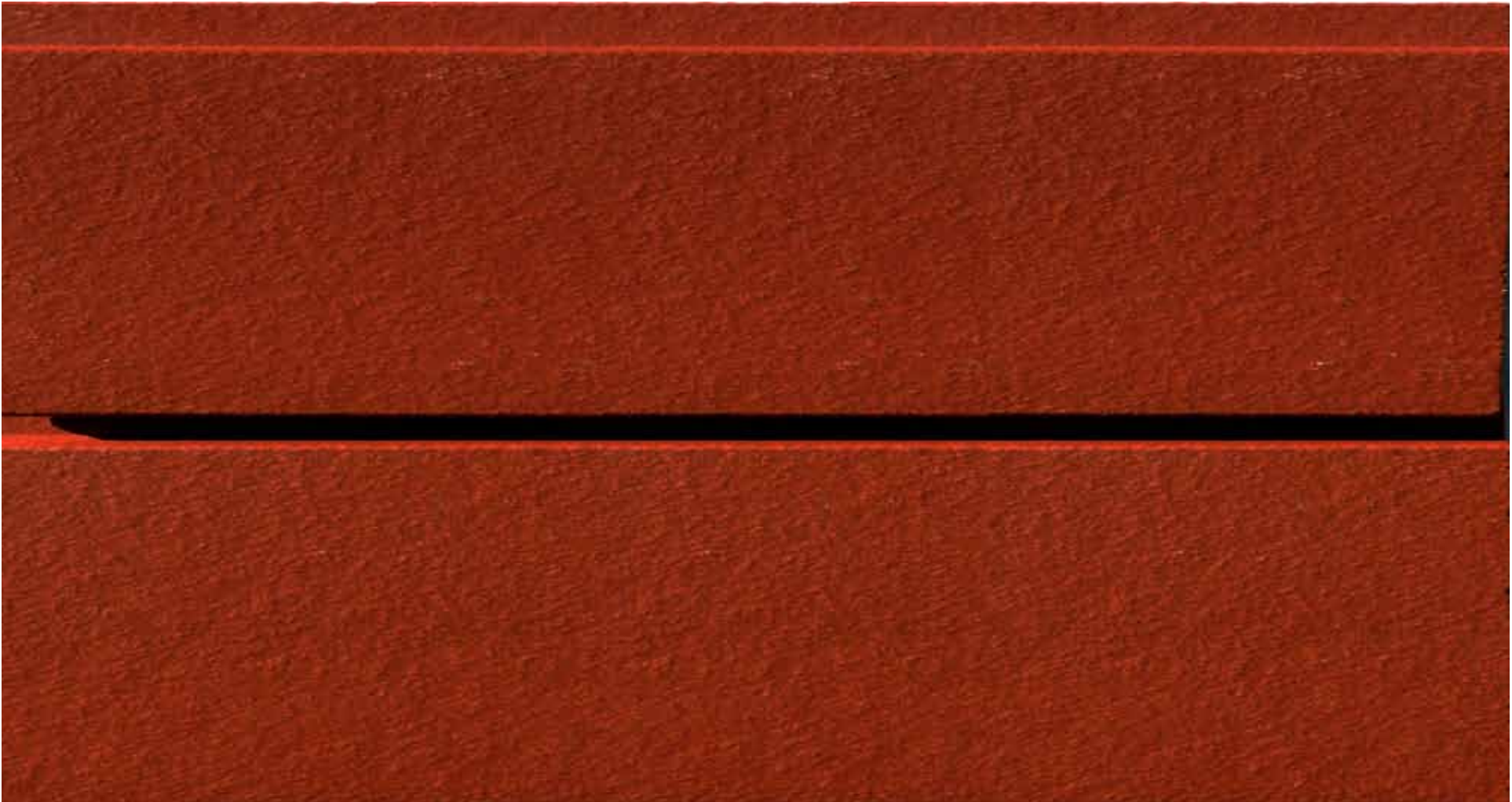
SAMPLE INSTALLATION



M STONE  
NATURAL MATERIAL WHICH MAY VARY IN COLOR AND TONE - REFER TO 'SAMPLE INSTALLATION' ILLUSTRATION.

STONE





TC1 TERRACOTTA TYPE 1 - RED

TERRACOTTA



TC4 GLAZED TERRACOTTA TYPE 4 - YELLOW



PM-6 PAINTED METAL TYPE 6 - NATURAL ALUMINUM



PM-4 PAINTED METAL TYPE 4 - YELLOW



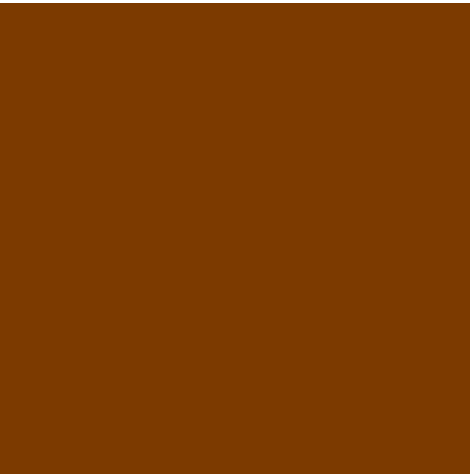
PM-3 PAINTED METAL TYPE 3 - PINK



S-4 PAINTED STUCCO TYPE 4 - YELLOW



CLEAR GLASS



PM-5 PAINTED METAL TYPE 5

GLASS, ACCENT MATERIALS AND METAL





ELEVATED VIEW OF BUILDING 32 - YELLOW FROM THE CORNER OF 16TH AND TERRY FRANCOIS LOOKING NORTH-WEST\*  
 ( Illustrations are provided for information only. Scope of work and material designations are to be per building elevation.)

*\*All landscape is only illustrative. Specific landscape details should be referred to in the Combined Basic Concept & Schematic Design Submittal – Mission Bay South Blocks 29-32 Town Square and Site Landscape book.*





VIEW OF BUILDING 32 - YELLOW FROM TERRY A FRANCOIS BLVD LOOKING SOUTH-WEST\*  
 ( Illustrations are provided for information only. Scope of work and material designations are to be per building elevation.)

*\*All landscape is only illustrative. Specific landscape details should be referred to in the Combined Basic Concept & Schematic Design Submittal – Mission Bay South Blocks 29-32 Town Square and Site Landscape book.*

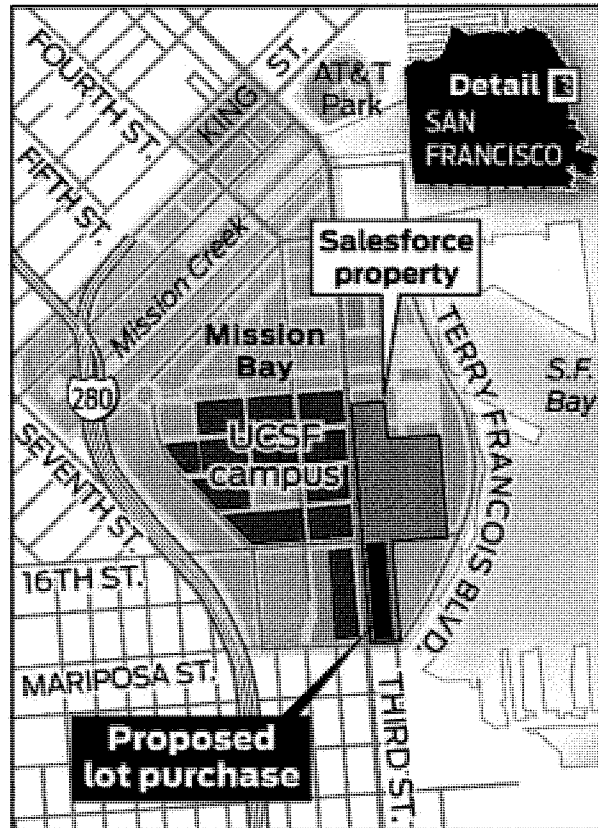


**SFGATE**<http://www.sfgate.com/bayarea/article/UCSF-Salesforce-in-talks-for-S-F-Mission-Bay-5319211.php>

# UCSF, Salesforce in talks for S.F. Mission Bay land deal

University in talks to buy land owned by Salesforce

Stephanie M. Lee Updated 7:27 am, Saturday, March 15, 2014



John Blanchard / The Chronicle

IMAGE 1 OF 2

UCSF has entered "advanced discussions" with Salesforce.com to purchase part of the company's sizable property in Mission Bay, the school says.

The two sides could reach a deal within four months, which would allow the university to add parking and research and administration buildings to its burgeoning campus.



The powerhouse life-sciences institution, which already has extensive biotech operations in the neighborhood, wants to buy Blocks 33 and 34, a nearly 4-acre parcel next to its Mission Bay campus at Third and 16th streets.

ADVERTISING



"We don't know exactly what we're going to do with the site," Lori Yamauchi, UCSF's associate vice chancellor of campus planning, told residents at a Mission Bay Citizens Advisory Committee meeting Thursday.

But, she said, the university tentatively plans to construct, on the north side of the rectangular site, a tower up to 160 feet tall with 275,000 total square feet. On the south side, UCSF would erect another building up to 90 feet tall with 225,000 total square feet. The two structures would be separated by a garage, as high as 90 feet, which could include 500 parking spaces.

### MORE BY STEPHANIE M. LEE

**Whole-genome sequencing falls short, study says**

**Johnson & Johnson, Alector team up on Alzheimer's therapies**

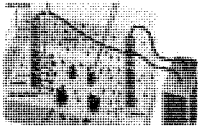


**Arsenic-free water - aided by Bay**

Construction on the north tower could be done in 2017, the parking garage in 2020 and the south building in 2022, Yamauchi said.

UCSF did not disclose a potential sale price for the property. But the nonprofit school,





**Area team's technology**

which is exempt from local taxes, said it will pour \$32 million into funds for affordable housing and public infrastructure to help the city offset the loss of property taxes.

The sale would further cement Mission Bay's reputation as a biotech hub, said Tiffany Bohee, executive director of the city's Office of Community Investment and Infrastructure, which oversees the land. Some 80 biotech companies and incubators have moved into the neighborhood since UCSF Mission Bay broke ground in 1999.

"There was no real biotech community 15 years ago in San Francisco," Bohee said. UCSF "has really been the anchor for the economic development in not just Mission Bay, but the city and the region. I think it's fantastic they are continuing to invest in Mission Bay."

A sale to UCSF would mark the first time Salesforce took action on the 14-acre property it bought for nearly \$250 million in late 2010. The company initially said it wanted to build a corporate campus but dropped the project without explanation two years ago. The property recently surfaced as a possible backup site for the Golden State Warriors should the team's plan to build an 18,000-seat arena on Piers 30-32 fall through.

UCSF wants to reduce costs by consolidating some of its operations into a central space. That could mean moving staff from the university's leased offices in downtown San Francisco and Laurel Heights campus. UCSF has been looking to sell or lease the Laurel Heights buildings.

The consolidation will probably not affect the university's Mission Bay and Parnassus campuses. The school might also build an outpatient clinic on the Salesforce land, but is not actively exploring that option, Yamauchi said.

To close the deal, UCSF must win approvals from the city, the UC Board of Regents and the state, a process that university officials expect to conclude by late June.

Stephanie M. Lee is a San Francisco Chronicle staff writer. E-mail: [slee@sfgate.com](mailto:slee@sfgate.com)  
Twitter: @stephaniemlee





October 23, 2015

Office of Community Investment and Infrastructure ("OCII")  
1 South Van Ness Avenue, 5th Floor  
San Francisco, CA 94103

Re: Event Center and Mixed-Use Development Mission Bay Blocks 29-32

Dear Ms. Bohee:

As the President of GSW Arena LLC ("GSW"), I write to address GSW's perspective as the Project Sponsor regarding the Project Sponsor's objectives and the feasibility of the various alternatives analyzed in the SEIR for the proposed Event Center and Mixed-Use Project at Mission Bay South Blocks 29-32 (the "Proposed Project"). We hope that this letter will assist you in your consideration of the approvals sought in connection with the Proposed Project, including your consideration of alternatives analyzed in the SEIR. My purpose in writing this letter is to provide OCII some further information on our objectives and to share the Project Sponsor's perspective on whether the alternatives are feasible in light of those objectives and the economic and program related needs of the Project Sponsor. Judicial precedents allow your agency to embrace such objectives as your own, if you find them persuasive.<sup>1</sup> I have attached to this letter two memos and a letter that provide substantial evidence on the issues of program demands, industry based standards and expectations, and the economic requirements of the Mission Bay Plan.

The first memo is from Stephen Collins, the Chief Operating Officer of GSW, describing the programming demands and constraints of the business model for the Event Center, drawing upon the expertise he developed working for over twenty-five (25) years at similar venues throughout the United States. The second memo is from Jennifer Cabalquinto, the Chief Financial Officer of GSW, drawing on her financial experience from over 20 years in a variety of business environments, including at Universal Studios Hollywood and NBC Universal, among others. The third attachment is a letter from Mission Bay Development Group (MBDG), the Master Developer of the Mission Bay redevelopment area, addressing

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<sup>1</sup> See, e.g., *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1498, 1501, 1507.



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the economic structure of Mission Bay as a whole and the need to generate sufficient tax increment to support the increment bonding capacity.

We understand that some members of the public have raised questions regarding the seat capacity and number of events at the proposed Event Center, and we believe that Mr. Collins' expert opinion on the economic model of similar event venues addresses the Project Sponsor's view that the number of seats and events, as well as the manner in which the events are programmed, are necessary to the success of the proposed Event Center. Ms. Cabalquinto's expert opinion addresses the economic considerations underlying the Event Center, particularly the need to program the Event Center for year-round events in order to generate sufficient revenue to support and amortize GSW's investment of over one billion dollars in the Proposed Project. Finally, the letter from MBDG explains how the tax increment program at Mission Bay depends on the creation of sufficient increment to support the bonding capacity, and how the need to create sufficient increment drives the requirement to fully program the site with both the Event Center and other components such as the office buildings and retail spaces.

The Project Sponsor's objective is to construct and operate an Event Center of 18,500 seats that operates on a year-round basis and to construct the Mixed-Used components of the Proposed Project, including the office buildings and retail components. We believe that the attached memos and letter provide substantial evidence supporting the Project Sponsor's opinion that the Event Center cannot reduce the size of the seating capacity or number of events without rendering the Proposed Project infeasible in light of economic constraints and industry-based program demands. Further, the letter from MBDG provides substantial evidence of the need to fully program the site with office and retail uses in addition to the Event Center.

Regarding the capacity of the proposed Event Center, it should be noted at the outset that at approximately 18,064 seats under a basketball court configuration, the Event Center seating bowl will rank as the fifth smallest venue used for National Basketball Association (NBA) games. It will contain 1,027 fewer seats than the average NBA venue, and 1,532 fewer seats than Oracle Arena, where the Golden State Warriors currently play. The proposed Event Center is therefore already considered small by industry standards and could not be further reduced without impacting the Event Center's ability to hold the same games and events as similarly situated venues in other major U.S. markets.



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Additionally, the proposed Event Center is already sized below current market demand for ticketed seats at Warriors games. The last 134 Golden State Warriors games have been played before a sold-out crowd, and approximately 17,000 fans have been placed on a waitlist for season tickets. Further reducing the Event Center's capacity would result in a failure to serve the significant market demand driving the above statistics, which result would be undesirable to the Project Sponsor and likely to the City of San Francisco as well.

Turning to the Alternatives considered in the SEIR, the Project Sponsor does not believe that any of the Alternatives analyzed meet most of the Project Sponsor's objectives; further, GSW does not believe that the Alternatives are feasible, for the reasons discussed below.

**Piers 30-32:**

Starting with Piers 30-32 and SWL Lot 330, GSW would note that both are under the jurisdiction of the Port of San Francisco. The current height limits (which are unchanged from 2012) for those sites are 40 feet and 65-105 feet, respectively. Proposition B, passed by the voters in 2014, requires that any height increase on property within the Port's jurisdiction from the height limit that existed in June of 2012 must go to the San Francisco voters for approval. Consequently, in order for the proposed project to proceed at those locations, the first step in the entitlement process would be to seek and obtain a height reclassification of the sites at the ballot. Taking a height reclassification to the ballot requires the Project Sponsor wait until the next election, and in advance of that expend significant sums to draft the ballot measure, collect signatures to place it on the ballot, and campaign for its approval.

After completing the height reclassification, the project would then commence seeking project approvals, which would require analysis under the California Environmental Quality Act as well as the National Environmental Policy Act (NEPA) because the Army Corps of Engineers (a federal agency) has certain permitting authority over the piers. The work required to retrofit the existing piers, which are in poor condition, would be extremely expensive, costing an estimated \$200 million and would entail in-water work requiring certain mitigation measures to protect biological resources. Under the Burton Act, a state law, the Port's authority to enter into leases does not permit leases more than 66 years in length; thus, the maximum term the event center could be leased would be 66 years. As a consequence, the extremely high costs of retrofitting the Piers in order to allow the event center to be built on it can only be amortized over a relatively short period of time, making the recovery of the capital costs of the project financially infeasible for the Project Sponsor. In addition, the mitigation measures required to protect biological resources include limiting the months in which construction can occur, particularly in-water work in order to protect the resources. These extensive mitigation requirements would foreseeably increase the construction times and risk.

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Finally, the time entailed in pursuing the required two-part entitlement process would take significantly longer than at a site not under the jurisdiction of the Port. In addition, Piers 30-32 are also regulated by other state and regional agencies, in addition to the Army Corps of Engineers. The Project Sponsor's lease at its current location at Oracle Arena expires in 2017 and the Project Sponsor must make a definitive decision about the long-term venue for the team as quickly as possible as a result. The additional time, expense and entitlement risk associated with Piers 30-32 make its choice as an alternative infeasible in light of the Project Sponsor's objective to relocate the team.

**The Reduced Intensity Alternative:**

The Reduced Intensity Alternative studied in the SEIR would reduce the Proposed Project by reducing the non-Event Center components; the retail component of the Proposed Project would be reduced from 125,000 square feet to 75,000 and the non-GSW office component from 580,000 to 373,000, for a total reduction of 282,000 square feet. In addition, the on-site parking garage would be reduced from 950 to 750 spaces. As explained in the SEIR, reducing the Event Center component of the Proposed Project would not be considered a feasible alternative since such a reduction (as more fully explained in this letter and its attachments) would not meet most of the Project Sponsor's Objectives. The Reduced Intensity Alternative also fails to meet the Project Sponsor's Objectives, which include, among others, "[p]rovide sufficient complementary mixed-use development, including office and retail uses, to create a lively local and regional visitor-serving destination that is active year-round, promotes visitor activity and interest during times the event center is not in use, provides amenities to visitors of the event center as well as the surrounding neighborhood, and allows for a financially feasible project".

As described in the attached memo from our CFO, Ms. Cabalquinto, the retail programming for the Proposed Project is necessary to provide an active and lively visitor-serving destination, and a sufficiently sized amount of retail will be necessary to ensure the attractiveness of the Event Center to prospective patrons. However, supporting the retail tenants on non-Event days is an important factor in attracting and maintaining a vibrant retail tenant base. As a result, the office components of the Proposed Project will afford the retail proprietors the benefit of an on-site population of potential customers, even on days when the Event Center is not active. Any significant reduction in the office component will necessarily result in a reduced potential customer base, thereby increasing the potential risk of any prospective retail tenant.

Further, a significant reduction in the office or retail program would adversely affect the creation of tax increment in the Mission Bay area as a whole. As described in the MBDG



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October 23, 2015  
Page 5



letter attached to this letter, OCII and the Master Developer have worked together through the years of the Mission Bay development area to assist the former Redevelopment Agency (now OCII) to issue "hundreds of millions of dollars of tax increment bonds to support the construction of affordable housing, parks and open space and critical utility, water quality and transportation infrastructure." As MBDG notes, the Reduced Intensity Alternative would "generate far less money for OCII to use for these various purposes." MBDG's letter analyzing the difference in projected revenue between the Proposed Project and the Reduced Intensity Alternative concludes, "the reduced density alternative would lead to a reduction over the next 25 years of approximately \$45 million (\$11.7 million to the normal taxing entities, \$9 million to affordable housing and \$24.3 million to parks and open space and infrastructure.

Thank you for your consideration of this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Rick Welts", is written over a light blue horizontal line.

Rick Welts

102007607.1



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**MISSION  
BAY  
DEVELOPMENT  
GROUP**

October 13, 2015

Re: Relative difference in property tax base and tax increment bonding capacity between the proposed arena project and a lower density alternative

Clarke Miller  
Strada Investment Group  
101 Mission Street, Suite 420  
San Francisco, CA 94105

VIA EMAIL

Dear Clarke:

In our role as master developer at Mission Bay, we routinely evaluate the property tax base and tax increment bonding implications of the various projects being constructed at Mission Bay. Over the last ten years, we have worked with the former redevelopment agency and now OCII to issue hundreds of millions of dollars of tax increment bonds to support the construction of affordable housing, parks and open space and critical utility, water quality and transportation infrastructure.

We understand that an alternative scenario for the proposed Golden State Warriors arena project at Mission Bay is being evaluated, and that you would like to understand the relative impact of that scenario's reduced density on the property tax base and tax increment bonding capacity compared with what would occur under the proposed project. As I explain below, the alternative scenario would generate far less money for OCII to use for these various purposes.

The property tax base, and therefore the tax increment bonding capacity, is driven directly by the construction costs associated with each project, as well as assumptions about whether those buildings are ultimately sold at market value, or remain on the tax rolls at construction value (for conservatism, we will assume all the building remains at construction value).

You have told us that the reduced density scenario would involve a difference/reduction of 207,000 gross square feet of office, 50,000 gross square feet of retail, and 200 parking stalls. Assuming the total cost, excluding land, of building the office and retail is \$500 per square foot (includes warm shell hard construction costs of roughly \$300 psf, tenant improvement hard costs of approximately \$100 psf, and soft costs – architectural, engineering, permits, impact fees, leasing commissions, financing, etc... – equal to approximately 25% of hard costs), and a per stall total cost (excluding land) of parking of \$60,000 per stall, results in a tax base difference/reduction of \$140.5 million ( $257,000 * \$500$  and  $200 * \$60,000$ ).

Tax increment is 1% of \$140.5 million annually, or \$1.405 million per year. This figure grows at approximately 2% per year due to Prop 13. Over the 25 years following the construction of the arena (i.e. the remaining redevelopment plan life of Mission Bay South), this revenue is split between a variety of uses (see the following page):



- Normal Taxing Entities, approximately 25.95% (\$364,598 per annum, growing at 2%/year), comprised primarily of the city and county general fund, the school district, community colleges, transit authorities).
- Affordable Housing, 20% (\$281,000 per annum, growing at 2%/year)
- Parks and Open Space and Infrastructure, 54.05% (\$759,403 per annum, growing at 2%/year)

Collected annually, this means that, compared with the proposed project, the reduced density alternative would lead to a reduction over the next 25 years of approximately \$45 million (\$11.7 million to the normal taxing entities, \$9 million to affordable housing, and \$24.3 million to parks and open space and infrastructure).

Alternatively, it is anticipated that, because of immediate needs and contractual obligations, OCII will issue bonds against certain of these revenues to provide immediately available funds to advance goals around affordable housing and infrastructure, especially important in a growing community like Mission Bay. Using typical bonding assumptions (5% interest rate, 25 year amortization, full utilization of all revenue for debt service because debt service coverage is provided by AB1290 subordination, and reserves and issuance costs of approximately 8%) and applying these assumptions to the revenue from a reduced density scenario would result in net proceeds from tax increment bonds sales being lowered by approximately \$13.49 million (\$3.64 million for affordable housing and \$9.85 million for parks and open space and infrastructure) compared with what would occur under the proposed project. In addition, due to the 2% annual growth (which is not used for debt service), another approximately \$7.3 million of direct increment (\$2 million for affordable housing and \$5.3 million for parks and open space and infrastructure) would also be lost compared with what would occur under the proposed project.

Please note that the above assumptions include some meaningful amounts of conservatism: construction costs are inflating rapidly; tenant improvement add-ons from the tenants themselves (also additive to the tax base) can often be another \$100-200 psf depending on the tenant; the price per stall for subterranean parking in Mission Bay soil conditions appears low at \$60,000/stall; we assume no sales of any of the buildings or parking (sales result in an increase in the tax base from construction value to market value); interest rates are currently lower for bonding than the 5% used (lower interest rates result in larger bond proceeds), and; use of 30 or 33 year amortization would generate greater bond proceeds.

Please let me know if you have any questions regarding the above analysis.

Sincerely,



Seth Hamalian  
Managing Principal  
Mission Bay Development Group, LLC



## Carroll, John (BOS)

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**From:** Mae Empleo <mae@semlawyers.com>  
**Sent:** Monday, November 30, 2015 11:01 AM  
**To:** BOS Legislation, (BOS)  
**Cc:** 'Patrick Soluri'; Osha Meserve; Tom Lippe; susanbh@preservationlawyers.com; Carroll, John (BOS)  
**Subject:** Mission Bay Alliance, Warriors EIR CEQA Appeal; Appellants' Partial Brief  
**Attachments:** SM Law Appeal Brief 11.30.15.pdf  
**Categories:** 150990

Dear Clerk of the Board of Supervisors:

Attached, in .pdf format please find the above referenced appeal brief with exhibits. Eighteen hard copies of same will be hand delivered to your office today by noon. Thank you for your attention to this matter.

Sincerely,

Mae Ryan Empleo  
Legal Assistant  
*Soluri Meserve, A Law Corporation*  
1010 F Street, Suite 100  
Sacramento, CA 95814

☎ tel: 916.455.7300 ▪ 📠 fax: 916.244.7300 ▪ 📱 mobile: 559.361.5363 ▪ ✉ email: [mae@semlawyers.com](mailto:mae@semlawyers.com)

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# **Before the San Francisco Board of Supervisors**

Appeal of Subsequent Environmental Impact Report for the  
Warriors Arena Project  
Commission on Community Investment and Infrastructure  
Resolutions 69-2015 and 70-2015

Hearing Date: December 8, 2015

## **APPELLANTS' PARTIAL BRIEF**

Re: Project Description, Tiering, AB 900, Greenhouse Gas Emissions, Geology  
and Soils, Hazards and Hazardous Materials, Urban Decay, Wind and Shadow, and  
Recreation

Submitted By:  
Patrick M. Soluri, SBN 210036  
Osha R. Meserve, SBN 204240  
SOLURI MESERVE, A LAW CORPORATION  
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Attorneys for Appellant Mission Bay Alliance



This office represents the Mission Bay Alliance (“Alliance”), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (“Warriors Arena Project” or “Project”).

The Alliance submits this brief in support of its appeal of Commission on Community Investment and Infrastructure Resolution 69-2015, certifying the Subsequent Environmental Impact Report (“SEIR”, “DSEIR” or “FSEIR” as appropriate) for the Warriors Arena Project, and Resolution 70-2015, adopting CEQA Findings for the Warriors Arena Project, both approved on November 3, 2015.

The grounds for this appeal are set forth in the Alliance’s November 13, 2015, Notice of Appeal, and is based on all of the Alliances’ comments letters and associated exhibits to those comments submitted to date (see References List, attached as **Exhibit 1**) as well as the materials physically attached as exhibits to this brief. (**Exhibits 2–7.**)

The grounds for this appeal are set forth in this brief and the two companion briefs submitted by our co-counsel, Thomas H. Lippe and Susan Brandt-Hawley, in the Alliance’s November 13, 2015, Notice of Appeal, and all previously submitted Alliance comment letters and supporting exhibits. This brief discusses certain of these grounds in more detail.

#### **A. PROJECT DESCRIPTION.**

The SEIR repeatedly presents a shifting and inconsistent project description that thwarts informed decision-making and public participation about the project.

The FSEIR is fundamentally flawed because the project description is internally inconsistent, thereby thwarting intelligent public participation about the Project and its impacts. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 197.) Changing the project description to avoid dealing with a difficult environmental issue appears to have become a recurring strategy employed by the City with respect to its analysis of the Project.

As first noted in the July 26, 2015 letter by Soluri Meserve, the DSEIR took internally inconsistent positions with respect to whether the Project included significantly reduced events at Oracle Arena. (July 26, SM Law, DSEIR.)<sup>1</sup> This strategy was

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<sup>1</sup> To facilitate review, short form citations are used for the Alliance’s previously submitted materials, and are identified in the References List attached as **Exhibit 1**.



employed in the AB 900 application as well as the DSEIR in order to justify the City's assertion that the Project would be carbon neutral. Although including reduced events at Oracle arena in the project description in the context of GHG emissions, the DSEIR omitted analysis of the consequences from such reduced events including, but not limited to, urban decay in Oakland.

The FSEIR also took inconsistent positions with respect to whether the Project included the two office towers. (Nov 2, SM Law, FSEIR, p. 5.) The Project's AB 900 application as well as the DSEIR took the incredible position that the two massive office towers were not components of the Project for purposes of the GHG analysis because they were somehow "vested." Setting aside the factual and legal deficiency associated with attempting to avoid CEQA review based on so-called "vested rights," it is noted that the FSEIR's energy analysis of the Project included analysis of the energy consumption associated with operation of the towers. The FSEIR attempts to side-step this inherent inconsistency by claiming that the FSEIR never, in fact, analyzed the Project's GHG emissions on a quantitative basis. As demonstrated below, however, that claim is false.

Finally, the FSEIR took internally inconsistent positions on the issue of whether the open space within the Project site was considered publicly available or purely private open space. (Nov 2, SM Law, FSEIR, p. 6.) In order to avoid disclosing a significant wind impact within these onsite open spaces, the FSEIR asserted that they were exempt from analysis because the spaces were "publically [sic] accessible but private recreational areas." (FSEIR, p. 13.15-1.) This characterization, however, was inconsistent with the FSEIR's characterization of this open space as counting towards the Project's requirement to construct 0.46 acres of open space for each 1.0 acre of development area, which the FSEIR characterizes as "directly serv[ing] the project's demand for recreational facilities." (FSEIR, p. 13.16-3.)

By repeatedly shifting the project description to avoid troublesome environmental issues, the City has thwarted informed decision-making about the Project, its impacts and mitigation measures. (See, e.g., *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 655-656 ("By giving such conflicting signals to decision makers and the public about the nature and scope of the activity being proposed, the Project description was fundamentally inadequate and misleading").) The City will need to recirculate a revised DSEIR based on a stable and consistent project description.

## **B. TIERING.**

The SEIR attempts to rely on and tier from EIRs prepared in 1990 and 1998 for Mission Bay Redevelopment planning efforts, yet tiering is not permissible because the



Project is different than the project described in the prior EIRs. Under CEQA Guidelines section 15152, “‘Tiering’ refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.” Tiering is only appropriate where the prior EIR has adequately addressed environmental effects that would not be substantially different than those related to the proposed project. (See CEQA Guidelines, § 15152, subd. (f).) When a program EIR has been prepared, an agency may determine that a project is within the scope of the previously prepared program EIR. (CEQA Guidelines, § 15168.) But in order to address those effects adequately, the project must be similar, if not the same as, the previously analyzed project.

A subsequent EIR must concentrate on issues specific to the later project that were not previously addressed in the prior EIR. (CEQA Guidelines, § 15152, subd. (a).) Here, reliance on the 1990 and 1998 EIRs for analysis of the impact areas excluded from consideration in the SEIR was impermissible because new information and/or changes in circumstances rendered the prior analyses inapplicable to the currently proposed Project. Contrary to the SEIR, the Project is not consistent with the Mission Bay Redevelopment Plan. (See July 26, Brandt-Hawley, DSEIR, pp. 1-2; Nov 2, Brandt-Hawley, Secondary Use, pp. 2-4.) As explained in the Alliance’s comments, the Project is neither a permitted use, nor a secondary use within Mission Bay South. As a result, the proposed Project is not within the scope of the previously prepared program EIRs, and those EIRs do not disclose the impacts of the Project.

The Record also contains substantial evidence supporting a fair argument that the Project will result in potentially significant impacts associated with the resource areas excluded from consideration in the SEIR or, alternatively, the record demonstrates that supplemental review is required under Public Resources Code section 21166 for those same resource areas. (July 26, MBA, Tiering, pp. 2-3; November 2, SM Law, FSEIR, pp. 1-3.) The SEIR’s approach to environmental review, including relying on environmental documents almost two decades old as well as numerous subsequently prepared reports and other documents prepared outside of the CEQA process fails to provide a cohesive, understandable document meeting CEQA’s mandates for adequacy, completeness, and a good faith effort at full disclosure. (June 30, oral comments by Osha Meserve, FSEIR, Vol. 6, p. PH-45.)

Moreover, the NOP/IS improperly determined that the project would have no new significant or substantially more severe impacts than analyzed in the 1998 SEIR. The determinations in the NOP/IS are not supported by substantial evidence in the Record.



Additional information regarding the inadequacy of the City’s approach to review with respect to analysis of specific resource areas is provided below.

**C. AB 900 AND ADMINISTRATIVE RECORD.**

The City has failed to comply with applicable requirements to compile and maintain a complete and adequately indexed Record, and also failed to timely make the Record made available online at the time of release of the DSEIR. Therefore, the Project may not rely on AB 900 litigation fast tracking.

The City did not post all of the documents comprising the Record at the time of DSEIR release, contrary to Public Resources Code section 21186, subdivision (b). The City failed to include numerous pieces of correspondence that were clearly within the documents comprising the Record under Public Resources Code sections 21186, subdivision (b) and 21167.6, subdivision (e). The City also failed to post references to the 1990 and 1998 EIRs, upon which the FSEIR relies for analysis of about half of the resource topics that are typically analyzed in an EIR. Examples of those missing documents were described in various comments submitted by the Alliance. (See, e.g., July 9, SM Law, pp. 1-2; July 26, MBA, Record, 1-3; see also Nov 2, 2015, SM Law, FSEIR, p. 3.) Moreover, the City admits that the Record is not located on the gsweventcenter.com website as required by Public Resources Code section 21168. The CEQA Findings do not refer to the gsweventcenter.com website as the location of the Record, but rather the Project files at the OCII. (CEQA Findings, p. 18.)

As a result of these and other related failures with respect to the Record, the City is not eligible for AB 900 litigation fast tracking for CEQA claims that may be lodged in the future. In addition, the purely legal argument inappropriately contained in the OCII CEQA Findings (p. 14) that all challenges to the Project—whether related to CEQA or not—would be subject to AB 900 fast tracking, would not be entitled to any deference by a reviewing court simply because it is bootstrapped in a document normally setting forth factual findings that may be entitled to deference. In any event, this legal argument is incorrect and contrary to the plain language of the referenced legal authority. Thus, any future litigation would progress according to normally applicable statutory timelines, not the timelines within AB 900.

**D. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO GREENHOUSE GAS EMISSION IMPACTS.**

The DSEIR stated that it “focuses on the project’s contribution to cumulatively significant GHG emissions.” (DSEIR, p. 5.5-9.) The DSEIR points to the certification of



the project as an AB 900 “Leadership Project” to reach its less than significant determination, stating that the proposed project “would not result in any net additional GHG emissions” after purchase of offsets from a “qualified greenhouse gas emissions broker.” (DSEIR, p. 5.5-11 to 5.5-12.) The FSEIR, in an about-face, then claimed that the less than significant determination” is based on finding consistency of the project with the San Francisco Greenhouse reduction Strategy” (FSEIR, p. 13.14-6), explaining that commenters were somehow confused (FSEIR, p. 13-14-5). In yet another about-face, the FSEIR claims that instead of being a quantitative analysis as one would have gathered from the DSEIR, it was actually a *qualitative analysis*. All the while, neither the DSEIR nor the FSEIR clearly describe the GHG implications of the Project. This approach fails in several respects.

As quantitative methods of assessing Project-level GHG emissions are available, the EIR’s lack of quantification of the impact was a failure to proceed in the manner provided by law. The Alliance has demonstrated that ample information was available that allows the City to quantify the Project’s GHG emissions, consistent with regulatory guidance. (Nov 2, SCS, GHG, pp. 2-3.) Thus, while the City might ordinarily have discretion to utilize a qualitative analysis, that discretion is constrained because extensive quantitative data has already been prepared for the Project that was readily available to the City. (*Berkeley Keep Jets Over the Bay Committee v. Board of Board Commissioners of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1371 (agency abused discretion by not quantifying project’s air emissions).)

The FSEIR’s conclusion that GHG emissions from the Project would result in a less than significant impact is not supported by substantial evidence in the Record. In particular, the allegedly quantitative analysis in the AB 900 Leadership application failed to include the entire Project; the 700,000 square feet of retail and office uses in the Project’s towers were inexplicably not counted at all). The application also made unsubstantiated assertions regarding a 76 percent reduction in GHG emissions from Oracle Arena. (July 26, SM Law, DSEIR, pp. 3-6; see also July 20, SCS, pp. 1, 4-6.) The allegedly *qualitative* analysis of the Project’s consistency with the San Francisco GHG Reduction Strategy also fails to meet minimum CEQA standards. CEQA allows lead agencies to consider whether the Project complies with an adopted local plan, for instance, in making a determination as to the significance of the Project’s GHG impact. (CEQA Guidelines, § 15064.4, subd. (b)(3).) Yet here, the EIR fails to provide any meaningful analysis of how the Projects alleged compliance with the SF GHG Reduction strategy actually results in a less than significant impact. (See FSEIR, pp. 13.14-6 (simply listing regulations that the Project would comply with).)



Under CEQA Guidelines section 15088.5, subdivision (a)(4), recirculation is required when meaningful public review is precluded by a fundamentally inadequate EIR. Here, recirculation of the DSEIR was required due to the FSEIR's change in approach to GHG analysis from the quantitative analysis described in the DSEIR that relied on the faulty GHG inventory prepared for AB 900 Leadership Development Project certification concluding there would be "no net emissions" to a "qualitative" analysis stating GHG emissions would be less than significant based on the Project's consistency with the local GHG reduction plan. (Nov 2, SM Law, DSEIR, p. 2.) While the DSEIR initially relied on the faulty AB 900 quantification of GHG emissions to reach a less than significant conclusion; when the FSEIR changed the approach to a "qualitative" approach, recirculation was required.

Even the flawed AB 900 GHG inventory revealed that the Project would result in very large GHG emissions, including: (1) 4,099 metric tons per year of carbon dioxide ("CO2") emissions during project operations; and (2) 10,066 metric tons of CO2 emissions over the two year construction period. (AB 900 Application, p. 8.)<sup>2</sup> According to the U.S. Environmental Protection Agency, a typical passenger car emits 4.7 metric tons of CO2 per year.<sup>3</sup> With the Project emitting almost 200,000 tons of CO2 over the 30-year period considered the life of the Project for purposes of the AB 900 analysis, the Project's GHG emissions are about the same as adding about 42,500 cars to the road for an entire year. Is this really a less than significant impact?

The SEIR also includes wholly inadequate mitigation for these substantial GHG emissions. In addition to allegedly being consistent with the SF GHG Reduction Strategy, the EIR includes an "Improvement Measure" that requires purchase of offset for the nearly 200,000 tons of GHG emissions that the AB 900 application stated the Project would emit. (FSEIR, MMRP-51.) Yet as described in the Alliance's comments, the measure does not specify purchase of any particular type of offsets, such as offsets certified by the California Air Resources Board, to ensure that the offsets are real, additional, quantifiable, permanent, verifiable, and enforceable. (July 20, SCS, p. 2.) Without any specification of offset type, the Project may make the claim that it is "GHG neutral" by purchasing offsets that may cost as little as \$1.00 per ton, with an overall cost to the Project of just \$200,000. Moreover, unlike other projects, there is no requirement that the offsets be purchased

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<sup>2</sup> Available at:  
[http://www.gsweventcenter.com/AB\\_900/2015\\_0217\\_GSW\\_Blocks29-32\\_AB900\\_Application\\_Submission.pdf](http://www.gsweventcenter.com/AB_900/2015_0217_GSW_Blocks29-32_AB900_Application_Submission.pdf).

<sup>3</sup> USEPA, GHG Emissions from a Typical Passenger Vehicle, p. 2, available at: <http://www3.epa.gov/otaq/climate/documents/420f14040a.pdf>, attached as **Exhibit 2**.



locally, which can create other local environmental benefits in addition to reducing GHG emissions.

The SEIR also impermissibly conflates analysis of the Project's design features (Improvement Measures) and mitigation measures, and thus fails to consider whether other possible mitigation measures would be more effective. The SEIR refers to the GHG reduction measure as an "Improvement Measure" rather than a mitigation measure. (FSEIR, MMRP-51.) To the extent that the City intends to incorporate the purchase of offsets as a "design feature" or otherwise incorporate it into the project description, this strategy violates CEQA's mandate to disclose project impacts and separately address feasible mitigation measures. (*Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 655-56 (incorporating mitigation measures for redwood trees into the project description violated CEQA "[b]y compressing the analysis of impacts and mitigation measures into a single issue . . .").)

Last, the FSEIR fails to adequately respond in good faith to comments about the GHG analysis, including but not limited to explaining why it was proper to exclude the office towers from the GHG emissions inventory. (CEQA Guidelines, § 15088.) In fact, the FSEIR fails to respond at all to comments concerning the legitimacy of excluding GHG emissions from the office towers from the AB 900 Leadership Project calculations. Though the FSEIR now claims that it does not rely on the AB 900 analysis to make its less than significant determination, the DSEIR referenced the AB 900 analysis as support for the determination. As a result of this shifting and unsupported approach to GHG analysis, the FSEIR misled the public and is deficient as an informational document.<sup>4</sup>

**E. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO GEOLOGY AND SOILS IMPACTS.**

Geology and Soils is one of the resource areas that the City determined it was unnecessary analyze in the SEIR. Yet, in the City of San Francisco, it is difficult to imagine a more important issue than seismic safety. For instance, it was the seismic upgrades at Candlestick park made before the 1989 Loma Prieta earthquake that undoubtedly saved countless lives. (See July 23, Karp, Loma Prieta, attached as **Exhibit 3.**) Given the complexity of the site, which is located on Bay fill placed after the 1906 Earthquake, as well as the fact that the arena is classified as Risk Category III under the

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<sup>4</sup> In addition to the materials cited above, the following materials contain additional detail regarding the flawed approach to GHG analysis: July 27, 2015, letter from Susan Vaughn, Sierra Club, FSEIR, Vol. 6, COM-180 - COM 181.



California Building Code (public assembly with more than 300 people), special attention to these impacts is necessary. (July 20, BSK, Geology, p. 4.)

The Record contains substantial evidence supporting a fair argument that the Project will result in potentially significant Geology and Soils impacts or, alternatively, supplemental review is required under Public Resources Code section 21166. Additionally, the failure to include an up to date analysis of Geology and Soils is subject to “de novo review,” as it constitutes a “failure to include required information.” (See *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1207-08.) Evidence in the Record reveals significant concerns with respect to seismic safety, liquefaction, tsunami hazards, and evacuation, among other impacts. (July 26, SM Law, DSEIR, pp. 13-20; Nov 2, SM Law, FSEIR, pp. 9-11; July 21, pp. 1-7; July 20, BSK, Geology, pp. 1-18, Nov 2, BSK, Geology.)

Reliance on the 1998 SEIR analysis of Geology and Soils was impermissible because the Project is much different than the project described in the 1998 FSEIR. For example, the Mission Bay Redevelopment Plan was a land use plan for mixed use development that did not contain any public assembly uses. Such uses have entirely different standards with respect to seismic safety. (July 20, BSK, Geology, p. 4.) Additionally, the 1998 FSEIR relies on outdated data and methodology to analyze impacts, and conditions have changed such that the 1998 FSEIR does not describe the present conditions at the site. (July 26, SM Law, DSEIR, pp. 13-20; July 21, Karp, Geology, pp. 1-5; July 20, BSK, Geology, pp. 5-6,8.)

Rather than include a cohesive discussion of Geology and Soils impacts in the context of the specific Project and today’s standards, the City has presented a hodgepodge of outdated information that is not tailored to the known Project and risks at hand. The FSEIR attempts to excuse the lack of information with the statement that an “EIR must achieve a balance between technical accuracy and public understanding.” (FSEIR, p. 13.20-12.) Yet, the SEIR provides *no analysis at all* of Geology and Soils Impacts, and instead relies on analysis in the outdated and inapplicable 1998 SEIR.

The SEIR also impermissibly defers development of mitigation measures necessary to ensure that Geology and Soils impacts are mitigated to less than significant levels. (July 26, SM Law, DSEIR, pp. 18-20; Nov 2, SM Law, FSEIR, pp. 9-11.) While the FSEIR refers to the importance of mitigation measures and compliance with building codes as means to address these issues (FSEIR, pp. 13.20-13 to 13.20-14), there are *no mitigation measures provided* to reduce Geology and Soils impacts to less than significant levels. (CEQA Findings, pp. 24-25; see also, FSEIR, p. 13.20-17.) With respect to building code, moreover, the Alliance’s expert explained that “Seismic response of



structures located on soft or liquefiable soils is non-linear and requires a site specific seismic response analysis.” (Nov 2, BSK, Geology, p. 2.) Thus, while certain design issues may properly be deferred and developed in accordance with applicable building code, it was necessary in this instance for Geology and Soils impacts to be analyzed in the context of an EIR, rather than a patched together network of new reports and excuses. As a result of the significant new information presented during the course of the review period regarding substantially more severe Geology and Soils impacts, recirculation of the SEIR was required. (CEQA Guidelines, § 15088.5, subd. (a).)

The FSEIR fails to adequately respond in good faith to comments regarding the inadequacy of the Geology and Soils analysis. For instance, the FSEIR does not adequately address comments regarding the interrelationship of liquefaction hazards around the site and the crucial need for attendees at events to be able to effectively evacuate the area. (Nov 2, BSK, Geology, pp. 2, 5.) In particular, expert comments explained that “liquefaction induced sand boils that may develop along the surface streets surrounding the project. Sand boils that may occur during an earthquake could result in significant settlements that would render the roads unusable for evacuation or emergency response. This issue has not been evaluated and considering that 18,000 people may be trying to evacuate from the area into unusable roads, this is a significant impact that has not been addressed.” (Nov 2, BSK, Geology, p. 4.) Instead of addressing this specific concern, the FSEIR simply referred to compliance with building codes. (FSEIR, p. 13.20-12.)

With respect to the adequacy of the SEIR’s analysis of Geology and Soils, the California Supreme Court’s opinion in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 443 is instructive:

The audience to whom an EIR must communicate is not the reviewing court but the public and the government officials deciding on the project. That a party’s briefs to the court may explain or supplement matters that are obscure or incomplete in the EIR, for example, is irrelevant, because the public and decision makers did not have the briefs available at the time the project was reviewed and approved. The question is therefore not whether the project’s significant environmental effects can be clearly explained, but whether they were.

Here, the analyses in the 1990 and 1998 are no longer pertinent. The City admits that none of the mitigation measures developed during that time even apply now. Subsequent brief descriptions in the IS/NOP also fail to characterize the full nature and extent of the seismic and other hazards that will result from construction of the Project.



Now, the FSEIR includes yet additional analysis and information regarding how impacts related to Geology and Soils will be addressed later through future regulatory processes and building codes. This review process does not clearly explain the effects of the Project to the public, and therefore violates CEQA.

**F. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO HAZARDS AND HAZARDOUS MATERIALS IMPACTS.**

Hazards and hazardous materials is one of the resource areas that the City determined it was unnecessary analyze in the SEIR, which is surprising since the Project site as well as the surrounding properties have a long history of extensive soil and groundwater contamination. (July 26, SM Law, DSEIR; July 22, BSK, Hazards.) The SEIR failed to include an analysis of the Project's impacts with respect to Hazards and Hazardous materials because of the flawed determination that there were no new or more significant impacts in this category than addressed in the 1998 FSEIR (NOP/IS, pp. 106-107; DSEIR, p. 1-9.) Although the NOP/IS determined that no additional analysis was required of these issues in the DSEIR, changed circumstances and/or new information following the 1998 SEIR requires recirculation of the DEIR that includes adequate analysis and disclosure of the Project's potentially significant impacts with respect to hazards and hazardous materials.

First, the DSEIR did not previously acknowledge the presence of asbestos on-site. Following release of the DSEIR, the Bay Area Air Quality Management District ("BAAQMD") staff sampled the stockpiles within the Operable Unit identified in the Revised Risk Management Plan (2006) and Risk Management Plan (collectively "RMP") for the site, which identified the presence of asbestos above regulatory limits. (Nov 2, SM Law, FSEIR; Oct 20, SM Law, Health Risk.) According to sampling by the BAAQMD, stockpiles of materials adjacent to the Project site contain more than 3 percent asbestos. (See **Exhibit 5**, BAAQMD Asbestos Results, August 7, 2015.) According to the sampling, stockpiles of materials adjacent to the Project site contain more than 3 percent asbestos, well above the USEPA's historically used upper limit of percent soil as a benchmark for defining hazardous levels of asbestos in soils. (See **Exhibit 6**, USEPA Asbestos Memorandum, dated August 10, 2004.)

In response to this newfound hazard from the presence of asbestos in onsite soils, the applicant prepared an Asbestos Dust Mitigation Plan ("ADMP") in order to mitigate the significant public health risk. This Mitigation Measure, included for the first time in the IS/NOP (HZ 1b, NOP/IS, p. 113), is improper in that it was formulated to address a new potentially significant impact that was not the subject of any EIR. (See NOP/IS, p.



113 (improperly assuming the asbestos is naturally occurring).) The ADMP, dated October 9, 2015, was released to the public just prior to the FSEIR. In any case, the newly-discovered presence of asbestos in soils onsite, not previously disclosed in the DSEIR or the prior EIRs prepared for the Mission Bay Redevelopment Plan, represents a new significant impact of the Project that requires recirculation.

Second, following release of the NOP/IS,<sup>5</sup> the applicant's consult prepared a Phase II report that identified significant additional contamination in soils onsite. (Nov 2, SM Law, FSEIR; July 26, SM Law, DSEIR; July 22, BSK, Hazards.) The Phase II report shows that significant amounts of both previously existing and subsequently-imported hazardous waste remain on the site today. (July 22, BSK, Hazards.) Backfill used in this area contained Class 1 and 2 hazardous materials that were not present before the excavation and partial removal of petroleum contaminated materials. These materials are not addressed in the 1998 RMP or 2006 Revised RMP. The FSEIR now acknowledges the existence of this contaminated backfill (FSEIR, 13.22-20), which was withheld from public disclosure in the NOP/IS and DSEIR.

The presence of newly-revealed contamination, viewed in isolation, represents new information and/or a changed circumstance requiring analysis and disclosure in a recirculated DSEIR.<sup>6</sup> Additionally, the Alliance retained an independent toxicologist to compare the results of the Phase II to the health screening levels in the 1998 RMP (and included in the 2006 RRMP) and current standards. The report prepared by Damian Applied Toxicology, LLC ("DAT"): (1) provides updated screening levels for the constituents at the site; (2) provides newly applicable screening levels that did not exist at the time of the 1998 EIR; (3) compares the new and old screening levels; and (4) compares the updated screening levels to the most recent site investigation data from the Project site. (Nov 2, SM Law, FSEIR; Oct 20, SM Law, Health Risk.)

The DAT Report shows that the prior screening levels are completely outdated and do not protect public health. Using updated screening levels that address a wide range of relevant potential receptors and exposure pathways, the DAT Report concludes that 19 chemicals (18 in soil and 1 in groundwater) that were detected in the 2015 Phase II

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<sup>5</sup> Hazards and Hazardous Materials is one of the subjects determined by the City to not warrant any analysis in the DSEIR.

<sup>6</sup> Evidence regarding the presence of asbestos within the Operable Unit that contains the site and described in the RMP dates back to at least August 2015, prior to OCII's certification of the SEIR. The asbestos results would alternatively warrant preparation of supplemental review under Public Resources Code section 21166 and CEQA Guidelines section 15162.



investigation at the site exceed at least one screening level. (Oct 20, SM Law, Health Risk.) The DAT Report did not include applicable screening levels for asbestos, as the Alliance had no information pointing to the presence of asbestos on the site until the BAAQMD asbestos sampling results were recently provided pursuant to a Public Records Act request. In any case, contamination documented previously in the Phase II as well as more recently in the BAAQMD asbestos testing, reveals that the Project poses potentially significant hazards due to impacts to the shallow water table, risks to construction workers exposed to site soils, including backfill, risks to commercial workers at the planned development project, and risks from transport and disposal of this hazardous waste, to the extent it may be taken off site. These hazards are not addressed in the RMP/RRMP, and represent new significant impacts that require recirculation of the DSEIR. (Nov 2, SM Law, FSEIR.)

The FSEIR mischaracterizes the record in an attempt to dismiss the significance of this newly-discovered contamination that is well above screening levels. First, the FSEIR suggests that it is contamination is not the result of subsequent activities at the Project site, stating, “The fill unit is . . . likely related to debris from the 1906 earthquake and resulting fire.” (FSEIR, 13.22-21.) This statement is misleading because it conceals from the public the fact, recognized in both the applicant’s Phase II report and the prior BSK report, that this material was deposited onto the Project site in approximately 2005 following excavation to remediate petroleum free-product found onsite. (July 22, BSK, Hazards, p. 3.) Thus, available facts indicate that this contaminated soil was the result of activities that took place following the 1998 SEIR, not the 1906 earthquake.

The City also attempts to dismiss the significance of this contamination by asserting, “[T]he Phase II ESA determined that these concentrations are not considered a health concern to construction workers.” (FSEIR, 13.22-21.) First, it is the function of a health risk assessment, and not a Phase II environmental site assessment, to make a determination of human health risk. Indeed, the completely inappropriate and inadequate nature of this conclusion in the Phase II is demonstrated with clarity in the DAT Report, discussed above, establishing that some of these contaminants are found in this fill material at up to ten times current screening levels. The City’s misstatements on these critical human health issues fall well below its duty of good faith.

Finally, it is noted that the FSEIR repeatedly relies on compliance with the existing 1999 RMP under the San Francisco Bay Regional Water Quality Control Board (“RWQCB”) oversight to ensure that impacts are less than significant. (FSEIR, 13.22-8 – 12.) Notably, compliance with the RMP is not even listed as a mitigation measure in the Mitigation Monitoring and Reporting Program, is and is instead listed as a Regulation. (OCII adopted MMRP-58.) In addition to establishing that the RMP itself is outdated



and no longer adequate to protect human health, the attached correspondence establishes that oversight by the RWQCB is no longer adequate to effectively manage the site for the protection of construction workers and the public. (**Exhibit 7**, RWQCB Email Correspondence, dated November 23, 2015.) In particular, there is no record of required air quality monitoring or tracking of movement of hazardous materials within the Operable Unit that includes the Project site. There has apparently been a complete failure to comply with even the most basic terms of the RMP, which in itself is inadequate to protect public health given the changes in circumstances described above. Whether a regulation or a mitigation, this measure is not functioning effectively to protect the public, including onsite workers, from onsite hazards, and is insufficient to reduce Hazard and Hazardous Materials impacts to less than significant levels.

In summary, the information submitted by the Alliance constitutes substantial evidence of a fair argument that the Project will have a significant adverse effect regarding hazardous materials. In the alternative, per CEQA section 21166 and CEQA Guidelines section 15162, the facts described above constitute a change in circumstances since the 1998 SEIR involving, and significant new information showing, a new significant effect not previously analyzed in the 1998 SEIR. Under either standard, the City must prepare and circulate for public comment an environmental impact report to review the Project's impacts on hazardous materials. Moreover, the identified mitigations/regulations to reduce Hazards and Hazardous Materials impacts have been proven to be ineffective and are therefore inadequate under CEQA.

**G. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO URBAN DECAY IMPACTS IN OAKLAND.**

“Under CEQA, a lead agency must address the issue of urban decay in an EIR when a fair argument can be made that the proposed project will adversely affect the physical environment.” (*California Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173 (CCEC).) An EIR is to disclose and analyze the direct and the reasonably foreseeable indirect environmental impacts of a proposed project if they are significant. (CEQA Guidelines, §§ 15126.2, 15064, subd. (d)(3).) Economic and social impacts of proposed projects are outside CEQA's purview. (CEQA Guidelines, § 15131.) When there is evidence, however, that economic and social effects caused by a project, could result in a reasonably foreseeable indirect environmental impact, such as urban decay or deterioration, then the CEQA lead agency is obligated to assess this indirect environmental impact. (CCEC, *supra*, 225 Cal.App.4th at 188; *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1182; *Citizens for Quality Growth v. City of Mt. Shasta* (1988) 198 Cal.App.3d 433, 446 (“The potential economic



problems caused by the proposed project could conceivably result in business closures and physical deterioration of the downtown area”).)

Here, the DSEIR explained that the project includes relocating the Warriors home games from the existing Oracle Arena in Oakland to San Francisco. (DSEIR, p. 1-3.) In addition to relocating all NBA games from Oakland to San Francisco, the project description also includes relocating half of all existing non-NBA games from Oakland to San Francisco. (AB 900 Application; DSEIR, p. 5.5-11.) Thus, a direct economic impact of the project is to reduce Oracle Arena events from 89 to 21 per year. As explained by economist Philip King, this is a severe direct economic impact from the project. (July 22, King, Urban Decay, pp. 6-7.)

Such a dramatic economic impact may reasonably be expected to have indirect impacts. Dr. King explains that revenues from a mere 21 events per year will not likely justify the ongoing operational costs of maintaining such a facility. (July 22, King, Urban Decay, pp. 7-8.) As such, a likely indirect impact is the ultimate shuttering of Oracle Arena. Repurposing such a massive facility is difficult to impossible, and so it is very likely that the facility will likely stand dormant and invite the physical deterioration that is characteristic of urban decay. (July 22, King, Urban Decay, pp. 8-9; *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 184, 1212 (urban decay characteristic of “long-term vacancies that deteriorate and encourage graffiti and other unsightly conditions”).)

Implicitly acknowledging that the DSEIR impermissibly ignored this issue, the FSEIR included an analysis purporting to explain how there was never any potential for urban decay in the first place. However, as explained by economist Philip King, the FSEIR’s technical report was so riddled with methodological errors and omissions including, for example, its repeated misuse of economic data and its sheer speculation that urban decay can be avoided by another professional sports team moving into Oracle Arena. Properly accounting for the numerous methodological flaws, the information contained in that report actually supports Dr. King’s conclusion of a fair argument that urban decay may result in Oakland. (Nov 2, King, Urban Decay.) Thus, rather than demonstrate that urban decay is a non-issue, the FSEIR’s report constitutes new information of a new potentially significant impact that requires recirculation of the DSEIR.

Rather than prepare the required analysis in good faith and recirculate the RDEIR with this new information as required by CEQA, the City instead hired a consultant to prepare a *post hoc* rationalization for why no analysis was required in the first place. (See FSEIR, Appendix UD.) As explained by Dr. King, the FSEIR’s analysis does not



actually respond to Dr. King's original analysis explaining why it is a potentially significant impact requiring analysis. (Nov 2, King, Urban Decay.)

#### **H. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO WIND AND SHADOW IMPACTS.**

According to the DSEIR, a wind impact would be significant if it would alter wind in a manner that would substantially affect public areas. (DSEIR, p. 5.6-6.) However, the wind analysis only addressed offsite areas and not the public spaces within the Project site. (DSEIR, pp. 5.6-10 to -13.) While the DSEIR included a discussion of wind impacts in these areas, it did so only for "informational purposes." (DSEIR, p. 5.6-18.)

The Alliance commented that the DSEIR failed to analyze the Project's impact on on-site open space, which rendered it defective as an informational document. (FSEIR, p. 13.15-1.) The FSEIR's response to this comment was not made in good faith, and instead was intended to conceal a significant impact (and thereby avoid recirculation) and improperly deferred mitigation.

The FSEIR first suggested that the open space provided on-site was somehow exempted from analysis because it consists of "publically [sic] accessible but private recreational areas." (FSEIR, p. 13.15-1.) This characterization, however, is inconsistent with the FSEIR's characterization of this open space as counting towards the Project's requirement to construct 0.46 acres of open space for each 1.0 acre of development area, which the FSEIR characterizes as "directly serv[ing] the project's demand for recreational facilities." (FSEIR, p. 13.16-3.) It is also inconsistent with the project applicant's own application materials, which plainly characterized these areas as public open spaces. (Golden State Warriors Even Center and Mixed-Use Development Combined Basic Concept/Schematic Design Submittal, Blocks 29-32: Open Space, Gatehouse & Parking and Loading, p. 5.)

In other words, the FSEIR characterizes this open space as "private" to avoid a wind analysis, but "public" for purposes of dismissing impacts to recreational facilities. The FSEIR's characterization of this space as "private" is also inconsistent with the project applicant's repeated representations about this space. This type of shifting project description is misleading and thwarts informed decision-making. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 197.)

What is more, the FSEIR's attempt to narrow the scope of the required wind analysis by reference to Planning Code section 148 is misplaced. Indeed, if one were to simply apply the scope of that code section directly, it would not apply at all because the



Project is being developed in a redevelopment area. Here, the 1998 Mitigation Monitoring and Reporting Program did not limit the application of a wind analysis to only those instances where Section 148 would apply on its own terms, but rather much more broadly:

Require a qualified wind consultant to review specific designs for buildings 100 feet or more in height for potential wind effects. The Redevelopment Agency would conduct wind review of high-rise structures above 100 ft. Wind tunnel testing would also be required unless, upon review by a qualified wind consultant, and with concurrence by the Agency, it is determined that the exposure, massing, and orientation of buildings are such that impacts, based on a 26-mile-per-hour hazard for a single hour of the year criterion, will not occur. The purpose of the wind tunnel studies is to determine design-specific impacts based on the above hazard criterion and to provide a basis for design modifications to mitigate these impacts. Projects within Mission Bay, including UCSF, would be required to meet this standard or to mitigate exceedances through building design.

(1998 EIR, p. VI.6, Mitigation Measure D.7.)

Thus, by its own terms this mitigation measure applies to “high-rise structures above 100 ft.” within any land use designation, and the scope of the affected area to review is in no way limited to “public open space” rather than so-called “private open space.” Nor is there any explanation that the scope of affected area is to be limited by Section 148.

The FSEIR also disclosed, for the first time, that the Project would “exceed the wind hazard criterion” at no less than “three test points on the project site,” which constitutes a new significant impact that requires recirculation of the DSEIR. The FSEIR dismisses the significance of those exceedances because “wind effects at these locations are not considered significant impacts on the environment.” (FSEIR, p. 13.15-3.) The FSEIR reaches this strained legal conclusion in order to avoid the factual issue that the de facto mitigation offered for that significant impact is both ineffective and impermissibly deferred under CEQA. This legal analysis is flawed, however and will be offered no deference by a reviewing court. The SEIR must be recirculated based upon these newly-disclosed wind exceedances that constitute new significant impacts from the Project.



**I. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO RECREATION IMPACTS.**

The DSEIR improperly failed to include any analysis of impacts to recreation based on the NOP/IS's determination there would be no new or more severe impacts than identified in the 1998 SEIR based on the incorrect assertion that "[t]he increase in demand for recreational facilities generated by the project would generally be consistent with that described in the Mission Bay FSEIR." (NOP/IS, pp. 61-64.) This conclusion is completely unsupported by any citation or factual support whatsoever. Rebutting this statement is the Project description itself: the Project includes a massive arena with a capacity of more than 18,000 seats holding up to 225 events per year.

These huge crowds, in addition to employees associated with the 580,000 square feet of commercial uses, would all be crammed into an 11 acre parcel. These thousands of additional arena visitors are in addition to the people associated with the 580,000 square feet of office space, the 125,000 square feet of retail space, and all other people within the larger Mission Bay area who are anticipated to use Bayfront Park. Since the 1998 SEIR limited its consideration to 50,000 square feet of entertainment uses and not a massive 750,000 square foot arena, the open space needs of these arena crowds were never contemplated in the 1998 SEIR. Accordingly, the Project will result in significantly accelerated physical deterioration of Bayfront Park than disclosed in the 1998 SEIR, which is a significant impact under CEQA. (CEQA Guidelines, Appendix G, section XV(a).)

The Project would also result in undisclosed impacts to recreation by constructing and operating Bayfront Park at a site with existing and historical soil and groundwater contamination. (July 22, BSK, Hazards; see also Exhibit 5, BAAQMD Asbestos Sampling.) While the development of Bayfront Park is considered a separate project for purposes of CEQA, the DSEIR acknowledged the development of the Project triggers development of Bayfront Park and must be completed prior to occupancy of the Project. (DSEIR, p. 3-37-38.) In other words, development of the Project requires construction of Bayfront Park. (See, e.g., CEQA Guidelines, Appendix G, section XV(b).) By failing to comply with the City's duty to analyze construction of Bayfront Park at a project level, serious questions are left unaddressed about whether construction of Bayfront Park along with the Project will result in adverse physical effects on the environment due to the presence of hazardous contamination on that site. (*Ibid.*) The failure to follow the procedures required in the RMP for the Operable Unit, also call into question the effectiveness of any existing requirements to adequately protect the public. (See Exhibit 7, RWQCB Email Correspondence.)



The potentially significant impacts regarding hazardous materials use, transport, disposal and public exposure are exacerbated in the context of Bayfront Park because that will be a ground-level landscaped park. Having failed to disclose that the soil underlying Bayfront Park is contaminated, the NOP/IS also failed to explain whether such contaminated soil will be left in place and thereby expose visitors to hazardous materials. There is no discussion of whether an impermeable cap will be used, for instance, to protect future park visitors from the existing contaminated soil.

The failure to address these critical issues supports a fair argument that the Project will require construction of a recreational facility (i.e., Bayfront Park) that will have an adverse effect on the environment by facilitating the exposure of contaminated soils to humans and the environment. (CEQA Guidelines, Appendix G, section XV(b)).

The FSEIR failed to provide good faith responses to these comments. Rather than actually cite any report or analysis, the FSEIR merely restates its prior unsubstantiated claims. (DSEIR, p. 13.16-2.) Thus, there is no evidence whatsoever supporting the conclusions with respect to Recreation impacts.

In the absence of any meaningful analysis regarding the Project's demand for recreational facilities, the FSEIR claims that the Project will not substantially degrade Bayfront Park in part because of "the inclusion of on-site publically accessible open space proposed by the project that would directly serve the project's demand for recreational facilities." (FSEIR, 13.16-3.) Yet this characterization of the Project's "open space" is inconsistent with the FSEIR's treatment of these areas in its wind analysis, which it characterizes as "publicly accessible but private recreational areas," (FSEIR, 13.15-1.) The FSEIR's inconsistent treatment of this important component of the Project thwarts informed decision-making and public participation.

The FSEIR also failed to respond in good faith to comments about hazardous materials exposure associated with construction and occupancy of Bayfront Park. The City first claimed that Bayfront Park is somehow a separate CEQA project notwithstanding the fact that its existence is triggered by construction of the arena. (FSEIR, 13.16-4.) Setting aside the FSEIR's attempted legal obfuscation, the FSEIR then conclusively asserted that all issues concerning hazardous materials at Bayfront Park are satisfied because a RMP has been approved for the area. (FSEIR, 13.16-5.) This response, however, ignores that the RMP itself is not sufficiently protective of human health because it is: (i) premised on outdated screening levels that are significantly higher than now utilized; (ii) does not address contaminated soil that was subsequently imported onto the Project site; and (iii) does not even address several contaminants that have been recently identified onsite at levels well above current screening levels. (Oct



20, SM Law, Health Risk; July 22, BSK, Hazards.) Moreover, the RMP is not being followed. (See **Exhibit 7**, RWQCB Email Correspondence.) As a result, the SEIR fails to adequately analyze Recreation Impacts, and must be revised and recirculated to correct this deficiency.

For all the reasons described about, the Alliance respectfully requests that the Board of Supervisors grant the Alliance's appeal and reverse OCII's certification of the SEIR and the associated Project approvals.

Respectfully submitted,

**SOLURI MESERVE**  
A Law Corporation

By:   
Patrick M. Soluri

By:   
Osha R. Meserve

**Attached Exhibits:**

1. List of previous comment letters relied upon in this appeal
2. U.S. Environmental Protection Agency, "Questions and Answers" handout regarding "Greenhouse Gas Emissions from a Typical Passenger Vehicle," dated May 2014
3. Facsimile from Lawrence B. Karp, dated July 23, 2015
4. "Warriors Stadium Economics: Uncertainty and Alternatives, Version 2.0," dated November 29, 2015, by Jon Haveman, Ph.D, of Marin Economic Consulting
5. BAAQMD Asbestos Samples, dated August 8, 2015
6. USEPA Asbestos Memorandum, dated August 10, 2004
7. Email Correspondence from Regional Water Quality Control Board, dated November 23, 2015



# **EXHIBIT 1**



## **EXHIBIT 1: REFERENCES LIST**

(Previously-submitted materials available at [gsweventcenter.com](http://gsweventcenter.com) and relied upon in this brief)

- November 9, 2015, letter from Soluri Meserve to Budget and Finance Committee (Nov 9, SM Law, Budget and Finance)
- November 3, 2015, letter to the San Francisco Municipal Transportation Agency, Board of Directors regarding their November 3, 2015, Agenda Item No. 13 (Nov 3, SM Law, MTA)
  - Exhibit 1, report dated November 2, 2015 by Jon Haveman, Ph.D. entitled, “Warriors Stadium Economics: Uncertainty and Alternatives”;
- November 2, 2015, Letter to the San Francisco Planning Department regarding the Environmental Review for Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 (Nov 2, SM Law, FSEIR). Exhibits:
  1. November 2, 2015, Memorandum from SCS Engineers (Nov 2, SCS, GHG)
  2. November 2, 2015, Geology report from BSK Associates (Nov 2, BSK, Geology)
  3. October 23, 2015, letter to DTSC requesting oversight (Oct 23, SM Law, Hazards)
  4. November 2, 2015, Memorandum from Dr. Philip King (Nov 2, King, Urban Decay)
  5. October 13, 2015, SMFTA Spreadsheet re: Capital and Operating Cost Estimates
  6. November 2, 2015, Report from Marin Economic Consulting (Nov 2, Haveman, Economics)
- October 20, 2015, letter to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review for Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 – Updated Soil and Screening Levels (Oct 20, SM Law, Health Risk)



- October 7, 2015, letter to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review for Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 – Clean Water Act 404 and CZMA Consistency (Oct 7, SM Law, CWA 404)
- July 26, 2015, letter from the Mission Bay Alliance, by Thomas Lippe, Susan Brandt-Hawley, Patrick Soluri, and Osha Meserve, to OCII and Planning Department regarding EIR tiering (July 26, MBA, Tiering)
- July 26, 2015, letter regarding impacts on Geology and Soils, Recreation, Hazardous Materials, Greenhouse Gases, Wind and Shadow, Utilities and Service Systems, Public Services, Energy and Urban Decay (July 26, 2015, SM Law, DSEIR) Exhibits:
  - A. July 22, 2015, letter report authored by air quality professionals Patrick Sullivan, CPP, REPA, and Joh Henkelman, regarding Greenhouse Gas Emissions (July 22, SCS, GHG)
  - B. July 22, 2015, letter report authored by geotechnical engineer Lawrence Karp, CE, CEG, regarding Geology and Soils impacts (July 22, Karp, Geology)
  - C. July 22, 2015, letter report authored by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts (July 22, BSK, Geology)
  - D. July 22, 2015, letter report authored by geotechnical engineer Martin Cline, GEG and Kurt Balasek, PG, CHg, QSD, regarding Hazardous Materials (July 22, BSK, Hazards)
  - E. July 22, 2015, letter report authored by economist Philip King, Ph.D., regarding Urban Decay (July 22, King, Urban Decay)
- July 26, 2015, letter from the Brandt-Hawley Law Group (July 26 Brandt-Hawley, DSEIR)
- July 9, 2015, letter to the San Francisco Planning Department regarding Notice of Incomplete Record for Warriors Event Center Environmental Review (July 9, SM Law, Record)
- June 29, 2015, letter regarding the City's failure to comply with AB 900 record keeping procedures and the resultant ineligibility of the Project for AB 900's litigation fast track procedures. (June 29, 2015, SM Law, Record)



# **EXHIBIT 2**



## Greenhouse Gas Emissions from a Typical Passenger Vehicle

**T**he U.S. Environmental Protection Agency (EPA) developed this fact sheet to answer common questions about greenhouse gas emissions from passenger vehicles. This fact sheet provides emission rates and calculations consistent with EPA's regulatory work.

**How much tailpipe carbon dioxide (CO<sub>2</sub>) is created from burning one gallon of fuel?**

The amount of CO<sub>2</sub> created from burning one gallon of fuel depends on the amount of carbon in the fuel. Typically, more than 99% of the carbon in a fuel is emitted as CO<sub>2</sub> when the fuel is burned. Very small amounts are emitted as hydrocarbons and carbon monoxide, which are converted to CO<sub>2</sub> relatively quickly in the atmosphere. Carbon content varies by fuel, and some variation within each type of fuel is normal. The EPA and other agencies use the following average carbon content values to estimate CO<sub>2</sub> emissions:

CO <sub>2</sub> Emissions from a gallon of gasoline:	8,887	grams CO <sub>2</sub> / gallon <sup>1</sup>
CO <sub>2</sub> Emissions from a gallon of diesel:	10,180	grams CO <sub>2</sub> / gallon <sup>2</sup>

Diesel creates about 15% more CO<sub>2</sub> per gallon. However, many vehicles that use diesel fuel achieve higher fuel economy than similar vehicles that use gasoline, which generally offsets the higher carbon content of diesel fuel.

<sup>1</sup> This gasoline factor is from a recent regulation establishing GHG standards for model year 2012-2016 vehicles (75 FR 25324, May 7, 2010).

<sup>2</sup> This diesel factor is from the calculations that vehicle manufacturers use to measure fuel economy (40 C.F.R 600.113).



## How much tailpipe carbon dioxide (CO<sub>2</sub>) is emitted from driving one mile?

The average passenger vehicle emits about 411 grams of CO<sub>2</sub> per mile. This number can vary based on two factors: the fuel economy of the vehicle and the amount of carbon in the vehicle's fuel. Most vehicles on the road in the U.S. today are gasoline vehicles, and they average about 21.6 miles per gallon.<sup>3</sup> Every gallon of gasoline creates about 8,887 grams of CO<sub>2</sub> when burned. Therefore, the average vehicle when driving one mile has tailpipe CO<sub>2</sub> emissions of about:

$$\text{CO}_2 \text{ emissions per mile} = \frac{\text{CO}_2 \text{ per gallon}}{\text{MPG}} = \frac{8,887}{21.6} = 411 \text{ grams}$$

This value will decrease slightly each year as standards become more stringent.

## What are the average annual carbon dioxide (CO<sub>2</sub>) emissions of a typical passenger vehicle?

A typical passenger vehicle emits about 4.7 metric tons of carbon dioxide per year. This number can vary based on a vehicle's fuel, fuel economy, and the number of miles driven per year. The average gasoline vehicle on the road today has a fuel economy of about 21.6 miles per gallon and drives around 11,400 miles per year<sup>4</sup>. Every gallon of gasoline burned creates about 8,887 grams of CO<sub>2</sub>, and there are one million grams per metric ton. Therefore, the average vehicle over a year of driving has tailpipe CO<sub>2</sub> emissions of about<sup>5</sup>:

$$\text{Annual CO}_2 \text{ emissions} = \frac{\text{CO}_2 \text{ per gallon}}{\text{MPG}} \times \text{miles} = \frac{8,887}{21.6} \times 11,400 = 4.7 \text{ metric tons}$$

EPA uses this to compare CO<sub>2</sub> emissions from other sources to emissions from passenger vehicles. For example, an energy efficiency program that reduces greenhouse gas emissions by 4,700 metric tons of CO<sub>2</sub> per year has the same impact as removing 1,000 vehicles from the road.

## Are there other sources of greenhouse gas (GHG) emissions from a vehicle?

In addition to carbon dioxide (CO<sub>2</sub>), automobiles produce methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) from the tailpipe and hydrofluorocarbon (HFC) emissions from leaking air conditioners.

<sup>3</sup> Federal Highway Administration Highway Statistics 2012. This is representative of the light duty passenger vehicle fleet as a whole, including both new and existing vehicles. EPA expects the average passenger vehicle fuel economy to increase over time as a result of new greenhouse gas and fuel economy standards developed in coordination between EPA, DOT and California.

<sup>4</sup> Federal Highway Administration Highway Statistics 2012.

<sup>5</sup> This calculation provides a simple way to determine the average annual CO<sub>2</sub> emissions from a passenger vehicle. Anyone that needs a more detailed approach should use the EPA's [Motor Vehicle Emission Simulator \(MOVES\)](#) model. This model contains detailed data about the light duty fleet and driving patterns in the United States. Although simplified, the calculated annual CO<sub>2</sub> emissions above are consistent with analyses performed by the EPA using MOVES.



The emissions of these gases are small in comparison to CO<sub>2</sub>; however, the impact of these emissions can be important because they have a higher global warming potential (GWP) than CO<sub>2</sub>.

The global warming potential of a gas relates the impact of that gas relative to an equivalent amount of CO<sub>2</sub>. Using global warming potentials, the impact of various GHGs can be directly compared using a common metric. This metric is expressed in units of carbon dioxide equivalent, written as CO<sub>2</sub>e. Multiplying the amount of a GHG times the global warming potential of that GHG results in the amount of GHG in terms of CO<sub>2</sub>e. For automotive-related gases, these global warming potentials are:

Greenhouse Gas	Abbreviation	GWP <sup>6</sup>
Carbon Dioxide	CO <sub>2</sub>	1
Methane	CH <sub>4</sub>	25
Nitrous Oxide	N <sub>2</sub> O	298
Air Conditioning Refrigerant	HFC-134a	1,430

It is more difficult to estimate vehicle emissions of CH<sub>4</sub>, N<sub>2</sub>O, and HFCs than CO<sub>2</sub>. Emissions of CH<sub>4</sub> and N<sub>2</sub>O are dependent on the design of the engine and emission control system, rather than fuel consumption per mile. The amount of HFC leakage from air conditioners is dependent on system design, amount of use, and maintenance. On average, CO<sub>2</sub> emissions are 95-99% of the total greenhouse gas emissions from a passenger vehicle, after accounting for the global warming potential of all GHGs. The remaining 1-5% is CH<sub>4</sub>, N<sub>2</sub>O, and HFC emissions.

**What are the tailpipe emissions from a plug-in hybrid electric vehicle (PHEV) or an electric vehicle (EV)? What about hydrogen fuel cell vehicles?**

A vehicle that operates exclusively on electricity (an EV) will not emit any tailpipe emissions. A fuel cell vehicle operating on hydrogen will emit only water vapor.

Calculating tailpipe emissions for PHEVs is more complicated. PHEVs can operate on electricity only, gasoline only, or some combination of electricity and gasoline. A PHEV operating on electricity only (like an EV) does not generate any tailpipe emissions. When a PHEV is operating on gasoline only, it creates tailpipe emissions based on the PHEV's gasoline fuel economy. Tailpipe emissions for a PHEV operating on both electricity and gasoline cannot be calculated without detailed information about how the PHEV operates. The overall tailpipe emissions for a PHEV can vary significantly based on the PHEV's battery capacity, how it is driven, and how often it is charged.

For more information, see the ["My Plug-In Hybrid"](#) calculator.

<sup>6</sup> These 100-year time horizon GWP values are from the 2007 Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report.



**Are there any greenhouse gas emissions associated with the use of my vehicle other than what comes out of the tailpipe?**

Driving most vehicles creates tailpipe greenhouse gas emissions. Producing and distributing the fuel used to power your vehicle also creates greenhouse gasses. Gasoline, for example, requires extracting oil from the ground, transporting it to a refinery, refining the oil into gasoline, and transporting the gasoline to service stations. Each of these steps can produce additional greenhouse gas emissions.

Electric vehicles (EVs) have no tailpipe emissions; however, emissions are created during both the production and distribution of the electricity used to fuel the vehicle. Visit the [Beyond Tailpipe Emissions calculator](#) to estimate GHG emissions for an EV in your region of the country.

**I thought my gasoline was blended with ethanol. Does that change my tailpipe CO<sub>2</sub> emissions?**

Most of the gasoline sold in the U.S. is a mixture of gasoline and up to 10% ethanol (often referred to as E10). The exact formulation of the gasoline in your vehicle will vary depending on season, region in the U.S., and other factors. While your fuel economy when using an ethanol blend in your vehicle will be slightly lower than when using gasoline without ethanol, the CO<sub>2</sub> tailpipe emissions per mile will be similar. This is because ethanol has less carbon per gallon than gasoline.

**How does the EPA measure CO<sub>2</sub> emissions from vehicles?**

The EPA and automobile manufacturers measure vehicle fuel economy and CO<sub>2</sub> emissions using a set of standardized laboratory tests. These tests were designed by the EPA to mimic typical driving patterns. The EPA and the Department of Transportation use these values to ensure that manufacturers meet federal greenhouse gas and corporate average fuel economy (CAFE) standards.

For every new vehicle, the test results are used to determine real world fuel economy and CO<sub>2</sub> emissions. These adjusted results are used on the Fuel Economy and Environment Labels and on [Fueleconomy.gov](#).

For more information, see [Frequent Questions on Fuel Economy Testing and Labeling](#) and [How Vehicles Are Tested](#).



**How can I find and compare CO<sub>2</sub> emission rates for specific vehicle models?**

Visit [Fueleconomy.gov](http://Fueleconomy.gov) and click on “Find a Car.”

When shopping at a dealership, check out tailpipe CO<sub>2</sub> emission rates on vehicle *Fuel Economy and Environment Labels*. The labels also feature a 1-to 10 Fuel Economy and Greenhouse Gas Rating to enable easy comparison shopping.

**Where can I find information on the emissions of the transportation sector as a whole?**

You can find documents on greenhouse gas emissions on the EPA’s [Transportation and Climate](#) website. This website is maintained by the Office of Transportation and Air Quality (OTAQ).

The EPA also publishes industry-wide data in the report, “[Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends](#).” This report analyzes trends in fuel economy and CO<sub>2</sub> emissions for new light duty vehicles from 1975 to the present.

Other useful sources include:

- [Fueleconomy.gov](http://Fueleconomy.gov)
- [Green Vehicle Guide](#)
- [U.S. Greenhouse Gas Inventory Report](#)
- [Greenhouse Gas Equivalencies Calculator](#)
- [Household Carbon Footprint Calculator](#)

For additional information on calculating emissions of greenhouse gases, please contact [OTAQ@epa.gov](mailto:OTAQ@epa.gov), or you can contact the OTAQ library for document information at:

U. S. Environmental Protection Agency  
Office of Transportation and Air Quality  
2000 Traverwood Drive  
Ann Arbor, MI 48105  
734-214-4311 & 734-214-4434  
E-mail: [Group\\_AAlibrary@epa.gov](mailto:Group_AAlibrary@epa.gov)



# **EXHIBIT 3**



July 23, 2015

Osha, when writing the review letter concerning an earthquake that would affect the proposed Warriors arena, an experience with another stadium came to mind. In 1985, when I was involved with a study of how Candlestick Park would perform in a serious seismic event, I was at a summary meeting in City Hall with Norm Karasick, the City architect. The discussion was about the cost of rebuilding the deteriorated concrete bleachers to then-current standards. It was recognized that one or more sections could collapse in an earthquake. Karasick pointed out that the City probably would not want to spend the money to strengthen the bleachers saying: "What are the odds there would be an earthquake during a game?" Well, in the end the City decided to do the work and on October 18, 1989 the Loma Prieta earthquake, centered near Santa Cruz, occurred during a World Series game. Nobody was injured at the game. All damages in the Bay Area were from liquefaction of sand (Marina District) and amplification of ground motion in soft ground (Cypress overpass). At the engineering team leader's retirement dinner almost 20 years later a toast to him was made by another engineer who thanked him for pushing the retrofit because his two sons had been at the game sitting below one of the rebuilt overhanging concrete bleachers. LBK

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# **EXHIBIT 4**



# Warriors Stadium Economics: Uncertainty and Alternatives

*Version 2.0*

*Produced by:*

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November 29, 2015



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## **Executive Summary**

This report provides both a cash flow analysis of the arena development and a comparison with a plausible alternative. The focus in the report is on the effect of the project on San Francisco's General Fund. It also provides a discussion of some of the assumed revenues associated with the Golden State Warriors (GSW) project. The project is currently expected to result in a small surplus in each year, but that surplus may not materialize. Either cost overruns in ensuring the flow of traffic during events or revenue shortfalls could erase the razor thin margin for benefit.

This report provides an update to a report by the same name originally released on November 2, 2015. Since that time, much has changed regarding the parameters of the agreement. An update of the analysis is provided herein.

### **Fundamental Changes to the Analysis**

1. City's Budget and Legislative Analyst has made it clear that off-site and dedicated and restricted revenues estimated in the fiscal impact report should not be included in stadium revenue calculations. Transit fare and parking revenues resulting from events at the arena, however, should be included. This makes the relevant revenue estimate \$11.6 million rather than \$14.1 million.
2. SFMTA's annual operating costs associated with the arena are now estimated to be \$6.9 million. The previous \$6.1 figure was a cost estimate net of fare and parking revenues associated with transit use by Event Center attendees.
3. It has been estimated that the one-time revenues (\$25.4 million) available to offset one-time transportation infrastructure related expenses (\$55.3 million) will fall short by \$29.9 million. Annual debt service payments associated with this shortfall are estimated to be \$2.1 million.
4. Total City departments' annual ongoing expenditures related to the Event Center are estimated to be \$10.1 million, including debt servicing.
5. Net revenues associated with the GSW are estimated to be \$1.5 million (= \$11.6 million – \$10.1 million), far less than previous estimates.
6. The final sales price on the 12-acre parcel has been established as \$150 million. This has implications for transfer tax revenues.



These changes make it clear that the City's Budget and Legislative Analyst (BLA) is in agreement with our prior conclusion that off-site changes should not be included in anticipated revenues associated with the GSW project. The BLA has also, rightly, focused on revenues and commitments associated with the City's General Fund.

Unfortunately, the Board of Supervisors has failed to adopt this recommendation from the BLA. In the absence of very extensive and sophisticated surveys of the activities of those attending events at the Event Center, and surveys of those who would otherwise have contributed to the off-site economy (a completely unidentifiable set of people), there is no way to accurately estimate *NEW* off-site revenues; off-site revenues that do not merely displace economic activity that would otherwise have occurred. Including highly flawed estimates off-site revenues that represent additions rather than diversions of General Fund revenues will do nothing other than cover up the true costs of the Event Center to the general public. Including off-site revenues represents bad accounting, bad economics, and disingenuous communication with the public on the part of the City.

The BLA has estimated that annual expenditures related to the Arena will be \$10.1 million and that on-site or direct revenues will be approximately \$11.5 million, yielding net revenues of \$1.5 million. A comparison with the biotechnology alternative reveals an annual difference in revenue to the General Fund of \$4.5 million. Annual net revenues associated with the biotechnology alternative are estimated to be \$6.0 million. The difference in one-time net revenues is \$38.5 million in favor of biotechnology.

The City's General Fund is on the hook for revenue short falls and cost overruns in providing transit and traffic support to the arena. Although the ordinance establishing the Mission Bay Transportation Improvement Fund has been amended to require GSW work with the city to reduce overruns associated with the SFMTA, there are other expenses — debt servicing, police presence, and DPW expenses — that remain obligations of the General Fund. These obligations are estimated to be \$3.2 million per year and will come at the expense of other City services.

**Important note:** If it is ever the case that revenues are less than SFMTA expenses, it will necessarily be the case that the General Fund will run a deficit of between \$2.1 and \$3.2 million. The requirement that the Warriors provide transit services in this case does *nothing* to cover these other Event Center related obligations.

There is sufficient uncertainty in future projects to be concerned about this scenario. As was pointed out by Controller Ben Rosenfield in a memo dated October 6, 2015, revenues associated with the project are "highly sensitive to actual attendance and the number of



events at the Event Center, local economic conditions when the Event Center opens, and other cyclical factors." With a slim margin of benefit and sensitive revenues, the likelihood of the City's General Fund running a deficit in any given year is significant.

The bottom line of this report is that an alternative agreement is expected to add to General Fund revenues between \$3.6 and \$7.4 million per year in present discounted value terms, or between \$80 and \$163 million over the first 20 years of arena operations. These figures can be thought of as the amount that San Franciscans are paying to bring the Warriors to town. It is the amount of revenues that the City would forgo with the GSW project, relative to a plausible alternative. This is not to say that the project is a bad idea, but merely to point out what is being given up in order to accommodate the Warriors' move.



## Key Findings

1. A cash flow analysis of the arena through the first twenty years of operation suggests net revenues for San Francisco's General Fund of \$22.1 million. This is after City expenses of approximately \$159 million during this time for transit and traffic mitigation. (Both figures are in present discounted value.)
2. This \$159 million of City spending in support of the Arena represents an implicit subsidy to the project. The City is funding transit infrastructure and the mitigation of traffic and transportation issues related to arena operations.
3. Despite claims to the contrary, the City is heavily subsidizing the Event Center.
4. Although the Arena generates significant revenues for San Francisco, the City's costs will exceed its revenues from the development for at least the first nine years of Arena operation, in the absence of financing.
5. There are elements of the estimates of City revenues that are filled with uncertainty. Numbers of spectators attending, taking mass transit, or parking, the general state of the economy. These all have implications for net revenues.
6. It is forecast that net revenues will be on the order of \$1.5 million per year. The City's contribution to annual arena expenses is capped at 90% of estimated revenues. It is possible that revenues will not be sufficient to cover expenses.
7. If revenues are insufficient to cover expenses, the City's General Fund will be responsible for covering the resulting shortfall of \$3.2 million.
8. If an alternative development, one suited to biotechnology, were pursued, the City's net General Fund revenues would be \$80.2 million higher and possibly as much as \$163.2 million higher over 22 years, or \$7.4 million per year.
9. An alternative development would have considerably larger economic impacts for the rest of the San Francisco economy than would an arena, creating significantly more jobs — more than 2,000 on-site. Oracle Arena currently generates just 494 jobs.
10. An alternative development would generate as much as \$1 billion in direct economic activity on-site.
11. Forgoing the biotechnology development and pursuing the Arena reduces net revenues to the City of San Francisco's General Fund by \$3.6 to \$7.4 million per year - and potentially much more. 6



## 1: Introduction

In 2017, the Golden State Warriors are expected to begin playing in San Francisco. Although this is an exciting development for the City of San Francisco, the economics of the Warriors presence in the City are unclear. There are likely to be significant revenue benefits for the City, but welcoming the Warriors will also involve significant infrastructure investments and ongoing expenses for the City and County of San Francisco. The net effects of these revenues and costs have not been adequately addressed.<sup>1</sup>

It is not clear whether San Francisco is importing a lucrative asset or a financial burden; that is, it is not clear whether the revenues associated with the Warriors play in San Francisco exceed the considerable upfront investments that the City must make. It is also an open question as to what exactly the City might be giving up in order to host the Warriors. The 12-acre parcel on which the arena is to be built is a valuable piece of real estate. In 2010, Salesforce paid \$278 million for a 14-acre site that includes the property in question. The property, located as it is across the street from UCSF and near a variety of biotech companies, seems a likely candidate for a biotech friendly building.<sup>2</sup> Were this to happen, it would yield significant benefits for the City. Whether or not these financial benefits exceed those associated with the Warriors is the subject of this report.

The report proceeds to review the costs and benefits associated with the Warriors, as they have been made public. The focus of the report is on the City's General Fund. The General Fund receives the majority of the revenues associated with the project, and also bears the liability for any shortfalls. This is followed by an estimate of the likely benefits of a biotech development occupying the same space. The benefits of the GSW plan are then examined from a perspective of robustness, whether or not they are likely to come to pass.

This report provides a cash flow analysis of the GSW project's effect on the General Fund and compares that analysis with an alternative development that includes a biotechnology-oriented commercial structure in place of the arena. The GSW project is cash flow positive, but not until at least the *tenth* year of operations. Relative to the alternative development, even after 20 years of operating, the GSW project falls short in terms of net government revenues by at least \$80 million, or \$3.6 million per year over 22 years, but potentially by as much as \$163 million, or \$7.4 million per year over 22 years. The alternative brings about these revenues without the need for heavy subsidization on the part of the City in

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<sup>1</sup>Accepting the team also results in a significant revenue hole for the City of Oakland in that most events that currently take place at Oracle Arena are projected to move to the new arena.

<sup>2</sup>Its neighbors would include UCSF, Celgene Corporation, National Multiple Sclerosis Society, venBio, Nurix, Clovis Oncology, FibroGen, and Illumina, among others.



the early years. From a purely financial perspective, the GSW project is a significant drain on the City's General Fund revenues potentially on its own, but certainly relative to what alternative developments might yield.<sup>3</sup>

## **2: Benefits and Costs of Hosting the Warriors**

As with any economic activity, there are certainly financial benefits for the City of San Francisco associated with hosting the Warriors. A report has been produced for the City of San Francisco that provides a fiscal analysis of the GSW project.<sup>4</sup> Subsequently, the BLA produced estimates of the effects of the project on the City's General Fund. The General Fund is the primary recipient of revenues directly attributable to the project, and also bears the burden of liabilities. The BLA memo and this report both focus on revenues that are directly attributable to the project as well as those that originate on the site of the project. This is comparable to the assignment of obligations in the agreement between the City and the GSW as outlined in the ordinance establishing the Mission Bay Transportation Improvement Fund.

These benefits are derived from one-time revenues from the purchase of the land and subsequent construction and ongoing benefits associated with the events that the stadium hosts. The ongoing benefits also include revenues from commercial and retail activity built into the project.

### **— Benefits/Revenues**

Table 1 provides a summary of an estimate of those benefits. Annually, stadium, retail, and office operations associated with the development are estimated to provide just over \$11.6 million in revenues to the City of San Francisco's General Fund. Of these revenues, \$9.8 million are a direct result of activities on the project site while \$1.8 million are the result of City transportation use by those attending events at the Event Center.

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<sup>3</sup>The methodology used in this report is comparable to the methods and assumptions used by EPS in producing its fiscal impact analysis of the GSW arena and used by the City's Budget and Legislative Analyst in its November 9, 2015 memo to the Board of Supervisors Budget and Finance Committee.

<sup>4</sup>Economic Planning Systems, *San Francisco Multi-Purpose Venue Project - Fiscal Impact Analysis: Revenues*, 9/25/15. (EPS)



**Table 1. Summary of San Francisco General Fund Revenues from Ongoing Stadium Operations (Thousands of 2014 dollars)**

<b>Annual Project-Generated Revenues</b>	<b>General Fund Revenues</b>
<b>Revenues From on-Site Businesses</b>	\$9,804 (85%)
<b>Revenues From Transit Fares and Parking</b>	\$1,773 (15%)
<b>Total Annual Project-Generated Revenues</b>	\$11,577 (100%)

Source: San Francisco Budget and Leg. Analyst report for Nov. 9, 2015 Budget and Finance Committee Meeting.

Table 2 provides estimates of detailed categories of revenues directly associated with ongoing economic activity once the development is completed.<sup>5</sup> The largest categories of revenue include the stadium admission tax (\$4.3 million), gross receipts taxes (\$2.4 million), and property taxes (\$1.8 million, including both general fund and in lieu of VLF). These three categories account for the vast majority of revenues (\$9.8 million) associated with the development. Revenues associated with transportation to and from events at the Event Center add an additional \$1.8 million, bringing the total to \$11.6 million.

**Table 2. Details of San Francisco Revenues from Ongoing Stadium Operations (2014 dollars)**

<b>Item</b>	<b>Amount</b>
<b>Annual General Revenue</b>	
Property Tax (General Fund)	\$912,000
Property Tax in Lieu of VLF	\$868,000
Sales Tax	\$521,000
Parking Tax	\$482,000
Stadium Admission Tax	\$4,336,000
Gross Receipts Tax	\$2,431,000
Utility User Tax	\$254,000
<b>Subtotal</b>	<b>\$9,804,000</b>
<b>Annual Transit Related Revenue</b>	
Event Related Fares	\$869,000
Event Related Parking	\$904,000
<b>Subtotal</b>	<b>\$1,773,000</b>
<b>Total Ongoing Revenues</b>	<b>\$11,577,000</b>

Source: BLA Report, 11/9/15, Table 3

<sup>5</sup>Whether or not revenues associated with transit usage are appropriately labeled *direct*, it seems reasonable to include them in the analysis. Their exclusion, however, would eliminate the General Fund surplus that is forecast to result from the project.



As mentioned, there will also be one-time General Fund revenues associated with the construction of the arena and the accompanying office and retail space (Table 3). These benefits amount to just over \$25.4 million, the vast majority of which is associated with the TIDF, or Transportation Impact Development Fee.<sup>6</sup> Another significant source of one-time revenue comes in the form of a Property Transfer Tax, \$3.7 million. Sales taxes and gross receipts taxes collected during construction add another \$5.4 million.

In its analysis, the City's Budget and Legislative Analyst's report indicates just \$25.4 million.<sup>7</sup> This number appears to omit contributions for Child Care and to use an outdated figure for "Sales Taxes During Construction" of \$1.7 million, rather than the \$2.4 million figure included in the table, a practice with which we agree.<sup>8</sup>

**Table 3. Summary of One-Time Revenues from Stadium Construction  
(2014 dollars)**

Item	Difference
<b>City Fees</b> (per gross building sq. ft.)	
Transit Impact Development Fee	\$17,436,000
<b>Other One-Time Revenues</b>	
Transfer Tax and Construction Gross Receipts and Sales Taxes	\$7,956,000
<b>Total One-Time Revenues</b>	<b>\$25,392,000</b>

Source: BLA Report, 11/9/15, Table 2

## — Costs

As with the benefits, there are also one-time and ongoing costs. The one-time costs are primarily those associated with enhancing transportation infrastructure and amount to \$55.3 million.<sup>9</sup> These costs include transit investments (the purchase of light rail vehicles), the installation of crossovers, the construction of a new center boarding platform, power aug-

<sup>6</sup>[http://www.sf-planning.org/ftp/files/legislative\\_changes/new\\_code\\_summaries/120523\\_TIDF\\_Transportation\\_Impact\\_Development\\_Fee\\_Update.pdf](http://www.sf-planning.org/ftp/files/legislative_changes/new_code_summaries/120523_TIDF_Transportation_Impact_Development_Fee_Update.pdf) Medical and Health Services, and Retail/Entertainment economic activity categories was increased to \$13.30 per square foot, except that the rate for museums, a subcategory of CIE, are \$11.05 per square foot, a reduction from the current amount. The rate for the Management, Information and Professional Services (MIPS) and Visitor Services economic activity categories was increased to \$12.64 per square foot, and the rate for the Production/Distribution/Repair (PDR) category was reduced to \$6.80 per square foot.

<sup>7</sup>November 9, 2015 Budget and Finance Committee Meeting memo.

<sup>8</sup>There is a difference of \$200 thousand between the BLA's figure and ours, but we defer to the BLA.

<sup>9</sup>One-time costs are from SFMTA, **Capital and Operating Cost Estimates for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32**, 10/6/2015. Estimates are in 2014 dollars.



ments to idling event trains, traffic/signals engineering investments, and a Mariposa Street restriping study.

These expenses are spread out over a four-year period, with the vast majority of expenses occurring in the 2016-17 MTA fiscal year. A major expenditure on light rail vehicles is slated to take place in the 2017-18 FY, when the Event Center begins operating. The costs to MTA are heavily loaded in the early years of the project, before ongoing revenues have begun. Estimated one-time revenues will be available during this time to cover expenses, but they will fall short of the total by \$29.9 million.<sup>10</sup> This difference will be borrowed and paid back over time.

Table 4 provides the details of the City's estimates of ongoing expenses related to the operation of the Event Center. In the BLA's November report, estimated annual ongoing costs associated with operations at the Event Center amount to \$10.1 million.<sup>11</sup> The vast majority, \$6.9 million, are associated transit costs. Other expenses include nearly \$1 million in additional policing, and \$100 thousand in expenses incurred by DPW. Given that the infrastructure expense shortfall is likely to be financed, the BLA's estimate of debt service payments, \$2.1 million, is also included.

**Table 4. Ongoing Costs of the Arena (millions of 2014 dollars)**

Agency	5/18 Estimates	10/6 Revisions	11/9 Revisions
City Operating Costs			
SFMTA	\$5.5	\$5.1	\$6.9
SFPD	\$0.9	\$0.9	\$1.0
DPW	\$0.2	\$0.2	\$0.1
<b>Sub-Total</b>	\$6.6	\$6.2	\$8.0
Payments for Capital Improvements			\$2.1
<b>Total</b>	\$6.6	\$6.2	\$10.1

Source: Golden State Warriors Arena: Event Management OCII Commission Presentation, May 18, 2015, and MTA, October 6, 2015.  
Nov. 6, 2015 from Budget and Legislative Analyst report.

## — Net Benefits

The project comes with considerable costs and benefits. Both upfront net costs and ongoing net revenues are considerable. The benefits presented here are significantly less than

<sup>10</sup>This figure is the difference between \$55.3 million, the total estimated capital uses estimate allocated to the project, and the total one-time revenues from the Budget and Legislative Analysts' report (\$25.4).

<sup>11</sup>City Operating Costs in the first two columns are net of revenues from fares and parking from riders going to events at the arena. These revenues amount to approximately \$1.8 million, split roughly evenly between the two sources. They are included in the final column because we support the notion of making both revenues and expenditures clear.



those discussed elsewhere. This is because the analysis here is limited to the direct benefits associated with the project and omits revenues accruing to dedicated and protected accounts. It is our view that the initial fiscal impact study inappropriately included those extra revenues. Their inclusion not only projects a false impression of the overall benefit of the project, but fails to highlight the budget obligations that befall the City's General Fund should costs rise or revenues fall short.

Table 5 summarizes the net benefits associated with the project in terms of net contributions to the City's General Fund. The table illustrates the \$29.9 million hole that the project introduces into the General Fund. It also illustrates how slowly that hole would be filled. Although a surplus of \$1.5 million is projected in each year, that includes debt servicing. Without the debt servicing, the surplus would be \$3.6 million, which would still take in excess of eight years to fill the hole.

**Table 5. Net Benefits of GSW Event Center Project**  
(Millions of 2014 dollars)

	Benefits	Costs	Net Benefits
One-Time	\$25.4	\$55.3	-\$29.9
Ongoing	\$11.6	\$10.1	\$1.5

Source: Calculations by Marin Economic Consulting.

It is important to note that the annual surplus is just \$1.5 million, or 13% of projected General Fund revenues. This is a relatively slim margin. Should one-fourth of the projected spectators fail to materialize, the surplus is likely to evaporate. If spectators fail to materialize, the revenues associated with the project (stadium admissions taxes and transit fares and parking, in particular) decline accordingly. However, the costs associated with managing the events do not. Should the number of events be lower, costs would then also decline.

It is also important to note that any last minute concessions by the City in terms of the Stadium Admissions Tax could eliminate the surplus in its entirety rendering a discussion of inaccuracies in spectator forecasts or economic activity unnecessary with regard to whether or not the General Fund is likely to be in surplus or deficit. The Giants currently enjoy a reduced stadium admissions tax that should the Warriors be granted a similar concession would turn the small surplus into a deficit.

### **A Cash Flow Analysis**

In order to assess the rate at which the hole would be filled, a cash flow analysis is required. It is our view that the original EPS report was incomplete in not considering the implications of the project over time. It failed to provide a comparison of overall costs and benefits



associated with the GSW project. The reviewer, Keyser Marston Associates, appeared to agree with the EPS approach, saying that a "cash flow approach is appropriate to evaluate a multi-phase project, which does not apply to this project." We respectfully disagree. There are two stages to this project: first, the one-time infrastructure investments and revenue implications of construction and parcel purchase, and second, the ongoing costs and revenues. The project's benefits to the City come inherently in two stages. If both stages yielded a net benefit, the need for a cash flow approach would not be nearly as acute. As the first stage is significantly negative, the overall net benefits must be evaluated over time in order to properly evaluate the project.

This has not been publicly done. Here, we consider a 20-year period following the construction of the Event Center. Given that many of these revenues accrue many years in the future, it is necessary to discount them to today's dollars. The bottom line is the present discounted value of the net stream of revenues to the City of San Francisco.

Assumptions crucial to the present value discount calculation:

1. Discount Rate: 4.5%
2. Rate of inflation: 2.5% (2% for property taxes, as per Proposition 13)

Table 6 provides an estimate of the present discounted value of net revenues to the City of San Francisco, using estimates from the EPS report of September 25, 2015 and from documents from the City of San Francisco. Once the facility has been operating for 20 years, net present discounted revenues are expected to be on the order of \$22.1 million, or approximately \$1 million per year over a 22-year period including two years of construction and 20 years of operation.<sup>12</sup> This estimate includes the upfront expenses incurred by the City as well as the ongoing expenses associated with event traffic mitigation.

**Table 6. Net Benefits of GSW Event Center Project over 22 years (Millions of Present Discounted 2014 dollars)**

	Benefits	Costs	Net Benefits
One-Time	\$25.4	\$55.3	-\$29.9
Financed			\$29.9
Ongoing	\$181.4	\$159.4	\$22.1
<b>Total</b>	<b>\$206.8</b>	<b>\$214.7</b>	<b>\$22.1</b>

Source: Calculations by Marin Economic Consulting.

<sup>12</sup>This differs from the \$1.5 million per year surplus in the Budget Analyst's report because the values are presented in discounted value terms.



The project pencils out as estimated, but with a net benefit over two decades that is unimpressive. Additionally, this calculus begs two important questions:

1. This is a 12-acre plot of land in the middle of a biotechnology hub. Are there better uses for this land from a revenue perspective?
2. Estimating the costs associated with event management is a more certain endeavor than estimating the benefits. How certain is it that the benefits will materialize?

For a project of this magnitude, it is vitally important to evaluate the potential for plausible alternatives to provide more benefits than the project in question. It is also important to consider robustness tests for the revenues in question. Neither of these issues has been publicly addressed. This report will present plausible revenues associated with an alternative development, a space designed with biotech in mind, and will discuss weak points in the revenue estimates presented above.

### **3: On the Economics of Biotech as an Alternative**

When evaluating the benefits of an economic endeavor, an exploration of alternatives is vital to understanding the full implications of an investment. Suppose that instead of building a 750,000-square-foot arena, the amount of commercial space on the property were doubled. In this section, we consider such an investment following as closely as possible the assumptions contained in the EPS estimate of revenues associated with the GSW project.

Important assumptions associated with this analysis include:<sup>13</sup>

1. Instead of a 750,000-square-foot arena, a commercial facility is constructed that provides 522,000 square feet of space. This constitutes an exact doubling of the commercial space in the GSW plan. This alternative development is otherwise comparable to the Warriors plan, including the original commercial, retail, and parking structures.
2. The space is designed with biotechnology in mind, which brings with it significant laboratory space. As such, it has a relatively high amount of space per worker associated with it: 250 square feet per employee.<sup>14</sup>

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<sup>13</sup>It was previously assumed that a commercial facility would have ancillary benefits in terms of indirect and induced economic activity in San Francisco. Consistent with the BLA memo, we have omitted these benefits from the analysis.

<sup>14</sup>This is an extremely conservative assumption. Some estimates suggest that a ratio of 150 to 11 is possible. This would considerably increase employment and hence output at the site, increasing the resulting income to both City residents and City coffers.



3. The transaction price for the land is \$150 million.<sup>15</sup>
4. It is assumed that just two-thirds of the biotech revenues generated onsite are subject to gross receipts taxation in San Francisco.<sup>16</sup>

With the addition of these assumptions, an exercise similar to that undertaken by EPS is performed for the new development. The new development includes the same retail revenues and costs, the same parking revenues, and essentially double the revenues associated with commercial development. Doubling the office space and maintaining other assets leads to an assessed value of at least \$605.5 million. This is considerably less than the project's assessed value with an arena.

Support for the notion that this construction is feasible comes not only from the 750,000-square-foot arena that the buildings will be replacing, but also from a similar planned development. UCSF was planning to build 500,000 square feet on four acres of blocks 33-34, right next to the site.<sup>17</sup> A new building of the size being considered is clearly feasible on the space currently to be occupied by the arena.

Table 7 presents a comparison of the one-time revenues and expenditures associated with the Event Center versus doubling the commercial space on the 12-acre property. While the Event Center brings with it a need for considerable infrastructure to accommodate the development, it is not clear that a doubling of the commercial space does. Accordingly, the Event Center brings with it a net upfront cost of \$38.5 million, relative to a commercial facility in place of the Center.

Although capital expenditures related to the Event Center are significantly higher than the revenues brought in through the TIDF, such is not expected to be the case for additional commercial space. The TIDF was put in place with developments such as this alternative in mind. Therefore, the transit costs associated with the development are better approximated using the TIDF taxation formula. The TIDF collected from the hypothetical alternative development (including the commercial, retail and parking in the GSW project) will serve as our estimate of related transit costs, \$10,901.

In the analysis above, the sales price for the property on which the event center and accompanying commercial and retail structures will be built is \$150 million. Property transfer tax would result regardless of the purchaser and the end use, but conceivably at a higher price.

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<sup>15</sup>The actual transaction price has been announced as \$150 million. San Francisco Times, **Warriors buy Mission Bay arena site from Salesforce**, 10/13/2015. This will result in differences in the values presented here and in the EPS report.

<sup>16</sup>There are several avenues through which revenues may be exempt from gross receipts taxes in San Francisco. This analysis is extremely conservative in assuming that this is more likely the case for biotechnology firms (perhaps because of significant revenues accruing through pass-through companies) than for firms in other industries.

<sup>17</sup>UCSF, **Salesforce in talks for S.F. Mission Bay land deal**, SFGate, March 15, 2014.



**Table 7. Summary of One-Time Revenues from Development**  
(Thousands of 2014 Dollars)

Category	Biotech	GSW Arena	Difference
Property Transfer Tax	3,651	3,651	0
City Fees - TIDF	10,902	17,436	-6,534
Construction			
- Sales Taxes	1,617	1,352	-265
- Gross Receipts Taxes	2,028	2,953	-925
<b>Total</b>	19,461	25,392	-5,931
<b>One-Time Expenses Associated with Development</b>			
Infrastructure Improvements	10,901	55,308	-44,407
<b>Net One-Time Revenues Associated with Development</b>			
Immediate Net Revenue Impact	8,560	-29,916	38,476

Source: BLA Report (11/9/15) and calculations by Marin Economic Consulting.

Salesforce originally paid \$278 million dollars for 14 acres (including the space in question) in 2010. The actual sales price was \$150 million for 12 acres. The plot of land in question represents the majority of the plot originally purchased by Salesforce, and is the largest single contiguous piece. Property values have also increased substantially since the original purchase by Salesforce.<sup>18</sup> It seems likely then that the value of the land would have increased significantly over the last five years as San Francisco is currently starved for commercial real estate. In the end, the price that the Warriors have paid for the land is surprisingly low. It represents the bulk of a property that was valued at \$278 million in 2010 and market values have only increased in the intervening years. Therefore, the actual market value of the land may well be higher than the price the Warriors have been offered and have paid, with correspondingly higher transfer taxes resulting from some alternative development.

Table 8 provides an analysis of the annual City revenues and expenses that can be attributed to each of the projects.<sup>19</sup> The first column is for the alternative development which targets the biotechnology industry.<sup>20</sup> The second column reflects estimates regarding the current Golden State Warriors project, and the final column presents the difference in expected revenue between the two.

<sup>18</sup>**Salesforce.com Is Said to Plan Sale of San Francisco Land**, Bloomberg Business, March 11, 2014.

<sup>19</sup>This alternative is chosen because it will allow the use of most of the EPS parameters and assumptions in producing annual revenues for the alternative project. See the Appendix to the first version of this report for a comparison of calculations between this project and the EPS report.

<sup>20</sup>The City seems to have performed its own analysis of a 100% commercial alternative. This can be found on page 1 of **Warriors Handout Sierra Club 11.17.15.pdf**. The estimates presented here are somewhat higher, in particular for sales taxes. This is in part because they eliminated retail in their estimates. Overall, the estimate here is just \$737 thousand more than in the City's estimates.



**Table 8. Summary of Annual Revenues and Expenses  
(in Thousands of 2014 Dollars)**

Category	Biotech	GSW Arena	Difference
<b>Annual Direct General Revenue</b>			
Property Tax (General Fund)	\$603	\$912	-\$309
Property Tax in Lieu of VLF	\$570	\$868	-\$298
Sales Tax	\$253	\$521	-\$268
Parking Tax	\$243	\$482	-\$239
Stadium Admission Tax	\$0	\$4,336	-\$4,336
Gross Receipts Tax	\$4,078	\$2,431	\$1,647
Utility User Tax	\$249	\$254	-\$5
Transit Related	\$0	\$1,773	-\$1,773
<b>Total Annual Revenues</b>	<b>\$5,996</b>	<b>\$11,577</b>	<b>-\$5,581</b>
<b>Annual Development-Related Expenses</b>			
SFMTA	\$0	\$6,912	-\$6,912
SFPD	\$0	\$952	-\$952
DPW	\$0	\$95	-\$95
Debt Service	\$0	\$2,123	-\$2,123
<b>Total Annual Expenses</b>	<b>\$0</b>	<b>\$10,082</b>	<b>-\$10,082</b>
<b>Annual Net Revenues</b>	<b>\$5,996</b>	<b>\$1,495</b>	<b>\$4,501</b>

Source: BLA Report and calculations by Marin Economic Consulting.

In most categories, the annual revenues are greater for the Event Center than for a development with additional commercial space. The exception is in the Gross Receipts Taxes, where a biotech firm occupies the additional commercial space. Taken as a whole, annual revenues from a purely commercial development are \$5.6 million less than for the project under consideration. Accounting for expenses related to the different projects, the commercial development results in \$4.5 million more in General Fund revenues annually than would the arena (last line of Table 8). From a net revenue perspective, a commercial development clearly dominates the construction of the Event Center.

As discussed above, merely calculating the one-time costs and an estimate of the ongoing revenue is insufficient. Were it sufficient, a commercial project focused on biotech would clearly dominate the current project. Table 9 provides an evaluation of the 22-year net benefits of an alternative development with space devoted to biotechnology comparable to the evaluation for the current project.<sup>21</sup>

According to these calculations, an alternative development would provide an extra \$80.2 million in revenues for the City of San Francisco (as in Table 10). Net present discounted

<sup>21</sup>Net one-time benefits for the GSW project are zero, which follows the assumption that the deficit brought on by infrastructure developments will be financed. The debt service payments are incorporated in the ongoing net benefits line.



**Table 9. Net Benefits of Alternative Developments after 22 Years**  
(Millions of Present Discounted 2014 Dollars)

	Biotechnology		Net Benefits		
	Benefits	Costs	Biotech	GSW	Difference
One-Time	\$19.5	\$10.9	\$8.6	\$0.0	\$8.6
Ongoing	\$93.7	\$0.0	\$93.7	\$22.1	\$71.7
<b>Total</b>	\$113.2	\$10.9	\$102.3	\$22.1	\$80.2

Source: Calculations by Marin Economic Consulting

revenues for the project with an Event Center are \$22.1 million, while a project with commercial space devoted to attracting biotechnology firms has a discounted value of net revenues expected to be \$102.3 million, a difference of \$80.2 million dollars, or an additional \$3.6 million each year on average over the 22 years.

From a cash flow perspective, there is a deep hole early on with the Event Center. The first three columns of Table 10 present annual present discounted flows of revenues into San Francisco City coffers. The second set of three columns provide a cash flow, or cumulative contribution to City coffers. The final column indicates the annual cash flow position of the City were it to cover the deficit without financing. Several things are immediately apparent from the table:

1. The Event Center puts an enormous hole in the City's budget in the first year (row 1, last column).
2. It will take *ten* years of operation of the Event Center to dig the City out of the hole (last column).
3. Substituting a commercial development is cash flow positive in the first year (row 3, column 4).
4. Although the gap in annual discounted net revenue closes over time, it remains significant even in year 20 (last row, column 4).
5. In year 20 of Event Center operations, there remains a surplus of revenue in the amount of \$80.2 million for the biotechnology development (last row, column 7), which continues to grow in subsequent years.

A final issue that differentiates a biotechnology-centric development over an arena is one of economic impact. It is clear from the economics literature that sports stadiums and arenas provide little economic boost to the local economy. At the same time, it is clear that these facilities are responsible for generating some local economic activity. The failure to



**Table 10. Stream of Net Revenues over Time**  
(Thousands of 2014 Discounted Dollars)

	Annual			Cumulative			GSW Balance
Year	Biotech	GSW	Difference	Biotech	GSW	Difference	w/o Financing
<b>One-Time Net Revenues:</b>							
2016	\$8,559	\$0	\$8,560	\$8,559	\$0	\$8,560	-\$29,908
<b>Start of On-Going Revenues:</b>							
2017	\$5,642	\$1,386	\$4,256	\$14,201	\$1,386	\$12,815	-\$26,519
2018	\$5,529	\$1,352	\$4,177	\$19,730	\$2,738	\$16,993	-\$23,202
2019	\$5,418	\$1,318	\$4,100	\$25,148	\$4,056	\$21,092	-\$19,956
2020	\$5,309	\$1,286	\$4,024	\$30,458	\$5,342	\$25,116	-\$16,780
2021	\$5,203	\$1,254	\$3,949	\$35,660	\$6,595	\$29,065	-\$13,672
2022	\$5,099	\$1,222	\$3,876	\$40,759	\$7,817	\$32,942	-\$10,631
2023	\$4,996	\$1,192	\$3,804	\$45,755	\$9,009	\$36,746	-\$7,655
2024	\$4,896	\$1,162	\$3,734	\$50,652	\$10,172	\$40,480	-\$4,742
2025	\$4,798	\$1,133	\$3,665	\$55,450	\$11,305	\$44,145	-\$1,893
2026	\$4,702	\$1,105	\$3,597	\$60,152	\$12,410	\$47,742	\$896
2027	\$4,608	\$1,078	\$3,530	\$64,760	\$13,488	\$51,272	\$3,625
2028	\$4,516	\$1,051	\$3,465	\$69,275	\$14,539	\$54,737	\$6,296
2029	\$4,425	\$1,025	\$3,400	\$73,700	\$15,563	\$58,137	\$8,909
2030	\$4,336	\$999	\$3,337	\$78,037	\$16,562	\$61,474	\$11,466
2031	\$4,250	\$974	\$3,276	\$82,286	\$17,536	\$64,750	\$13,969
2032	\$4,165	\$950	\$3,215	\$86,451	\$18,486	\$67,965	\$16,418
2033	\$4,081	\$926	\$3,155	\$90,532	\$19,412	\$71,120	\$18,815
2034	\$4,000	\$903	\$3,097	\$94,532	\$20,315	\$74,216	\$21,161
2035	\$3,920	\$881	\$3,039	\$98,452	\$21,196	\$77,256	\$23,456
<b>Year 20 of Event Center operation:</b>							
2036	\$3,841	\$859	\$2,983	\$102,293	\$22,055	\$80,238	\$25,702

Source: Marin Economic Consulting

add to a region's economy is because they tend to displace other entertainment purchases from the broader economy rather than to stimulate new spending. An individual may go to a basketball game instead of to a play, opera, symphony, or rock concert. These facilities are therefore not additive to the economy.

Nonetheless, it has been estimated that economic activity associated with Oracle Arena accounts for \$44.9 million in economic Activity and 494 jobs in Alameda County.<sup>22</sup> It seems likely that the impact of the new arena will be of a similar magnitude.

By comparison, a 522,000 square foot biotechnology facility, with a ratio of space to employee of 250 to 1 can accommodate more than 2,000 employees. That represents four times more employment for biotechnology than for the Event Center. It is also consistent

<sup>22</sup> Memo to Patrick Soluri, Attorney at Law, from Philip King, Ph.D., regarding Urban Decay Analysis of Proposed Relocation of Golden State Warriors from Oakland to San Francisco, page 9.



with an estimate of economic output on the order of \$1 billion, an order of magnitude higher than for the Arena. Accordingly, the biotechnology development can serve as a much more significant engine of economic growth for the region than can the new event center.

#### **4: Questioning the Benefits and Costs of the GSW Project**

There are few guarantees with economic endeavors. Assuming that the conditions that exist today will exist tomorrow, the day after that, or 20 years from now is of dubious merit. Conditions change. The level of success of a basketball team ebbs and flows (though hopefully not for the Warriors), the economy grows and shrinks, and modes of transportation change.

This certainly holds true for the construction of an arena. While it is quite likely that the Warriors will play at the arena for the foreseeable future and experience a high level of success for some time, it is not certain that the estimated revenues will materialize. As a case in point, the EPS study assumes a sales price for the land of \$172,546,000. The actual sales price was \$150,000,000. That represents a reduction in sales price of 13%, with a corresponding reduction in revenues that are tied to the sales price: transfer taxes and ongoing property taxes. Although the long-term implications of a decline in ongoing property taxes is likely small, the transfer tax is reduced from \$4.2 million to \$3.65 million, a reduction in one-time revenues of \$549,000. Granted, this is just one percent of the one-time transit costs associated with the project, but it is more than half a million dollars no longer available for other city needs.

Of the sources of General Fund revenue, only two are relatively secure. Property taxes and utility user taxes are both likely to materialize in the projected amounts, securing only about \$2 million out of \$11.5. The gross receipts taxes are highly dependent on the occupants of the commercial facilities and all of the other sources are dependent on numbers of and the behavior of event attendees.

Most important assumptions regarding both revenues and costs surround the number of event attendees and their mode of transportation. If they drive, walk, or ride bikes more often than is anticipated, transit revenues will fall. If ride sharing or autonomous vehicles take over, parking revenue will fall. If attendees fail to materialize, then both revenues from transit and other sources will fall. Whether or not costs do is an open question. Costs are related to numbers of events, so if there are fewer events, costs may also fall.



The City also has a history of relaxing stadium admissions taxes. From the general City code, tickets to Giants games are granted an exemption. Whereas most tickets to a Giants game would be subject to a stadium admissions tax of \$1.50, they are currently taxed at \$0.25 per ticket. Were such an exemption to be granted to the Warriors, General Fund revenues would decline by \$2 each, or approximately \$1.5 million. Such an act would wipe out the General Fund surplus. Were the exception granted to all events at the Event Center, that would reduce revenues by \$3.6 million.

The point of this discussion is that estimated revenues are suspect, while estimated costs are much more likely accurate. Fixed investments, in particular, are known and not subject to market whims. However in this case, there are unknowns lurking in the cost estimates. It is likely that the revenue implications are biased high, resulting in uncertainty over their future stream with more downside risk than upside. It is already the case that actual one-time revenues have turned out to be less than anticipated (such as the transfer tax, which was lower by \$549,000). Clearly, there is great uncertainty in almost all of these estimates.

## **5: Some Sensitivity Analysis**

The revenue estimates relating to the GSW project and the revenue estimates relating to a biotechnology center are both uncertain. It is therefore worthwhile to experiment with basic assumptions to better understand the implications for City revenues. Table 11 offers some evidence for the implications of particular assumptions. We provide three separate alternatives that relax in different ways the assumptions inherent in the baseline analysis. The top line of the table presents the baseline results of the analysis, the estimates of present discounted net revenues accruing to the City (corresponding to the last row in Table 8). In the case of the biotechnology development net present discounted revenues are \$102.3 million whereas they are just \$22.1 million for the GSW project, a difference of \$80.2 million.

The first alternative assumes a greater density of employment in the new commercial facility, leaving the existing commercial plans constant. If there are 200 square feet per employee, rather than 250, revenues associated with the new facility increase by more than \$8.2 million relative to the baseline. This increase in revenue stems largely from an increase in the output produced by the building's occupants, resulting in increased gross receipts tax revenues. Further reducing the space per employee will have correspondingly larger increases in revenues.

A second alternative assumes a larger facility is constructed, with 722,000 square feet of space rather than 522,000 square feet of space. This increases the number of employees



**Table 11. Summary of Net Present Discounted Value Associated with Alternatives (22 Years, 2015-2036)  
Comparing the Multi-Purpose Venue with a Biotechnology Center (Millions)**

Item	Biotech	GSW	Difference	
			Over 22 Years	Per Year
Baseline	\$102.3	\$22.1	\$80.2	\$3.6
Alternative 1	\$110.6	\$22.1	\$88.4	\$4.0
- Area to employee ratio for Biotech of 200/1		<i>Over Baseline :</i>	\$8.2	
Alternative 2	\$116.5	\$22.1	\$94.3	\$4.3
- Add 200,000 sq ft to New Commercial Space		<i>Over Baseline :</i>	\$14.0	
Alternative 3 (Extreme)	\$185.3	\$22.1	\$163.2	\$7.4
- Area to employee ratio for Biotech of 150/1		<i>Over Baseline :</i>	\$83.0	
- 100% of Biotech revenues are subject to GRT				
- Add 200,000 sq ft to New Commercial Space				

Source: Marin Economic Consulting

working in the space by nearly 40%, maintaining the assumption of 250 square feet per employee. With greater space comes increased employment and increased output. Accordingly, revenues are estimated to increase by \$14.0 million with an expanded space. Under this scenario, the net discounted value of City revenues increases by \$94.3 million relative to the GSW project. Even larger spaces would have a correspondingly larger impact on City revenues.

Finally, an extreme alternative is offered. Alternative 4 allows for a 150 to 1 ratio of square feet to employees, assumes that all of the revenues accruing to the biotech occupants are subject to the GRT, and involves a building with 722,000 square feet. Under this alternative, City revenues increase by \$83.0 million relative to the baseline, with biotechnology revenues exceeding GSW revenues by \$163.2 million over 22 years and \$7.4 million per year.

These alternatives are not put forward to suggest that there is \$163.2 million being left on the table (though there may be), but rather to illustrate the range of differences that underlying assumptions can make. At the same time, even the extreme alternative is plausible.

## 6: Re-Evaluating the Net Benefits of Hosting the Warriors

There are two fundamental points made in this report:



1. Estimates of costs and revenues are highly speculative, and the evidence suggests that there is more downside risk to the GSW project than upside.
2. There is significant revenue that is forgone by the City in order to bring the Warriors to town.

Both of these points raise significant questions about the Warriors arena project from a financial perspective. First, how comfortable are taxpayers in their understanding of the implications of this development? Second, is this the right development?

The respective answers are "not very" and "quite possibly no." There is uncertainty in the information available and replacing the Event Center in the project with additional commercial space has the potential to increase City revenues significantly.

Another way of thinking about the differences in revenues between the GSW project and a biotechnology development is that these differences reflect the price the City is paying in order to bring the Warriors to town. There are certainly other more tangible costs, but these costs are also real.

The above analysis indicates that even with relatively conservative assumptions, in particular those regarding employment in the new development and the size of the new development, a biotechnology center would increase City revenues significantly relative to the Event Center. Under the baseline scenario, the difference is \$80.2 million over 22 years. Under the most extreme, yet plausible, scenario presented, an additional \$163 million could be raised over the 22-year period. This analysis suggests that the citizens of San Francisco, through lower levels of revenue in the City's General Fund, are paying between \$3.6 and \$7.4 million per year to host the Warriors.

Every economic development represents a choice. That choice is between the proposed development and plausible alternatives. The City has chosen to pursue a basketball team without exploring or disclosing the relative merits of the project compared with plausible alternatives. This report is not designed to condemn the choice, but rather to better inform the debate on the implications of this choice.

Aside from foregone revenue, it is quite possible that the GSW project could require additional General Fund expenditures. The ordinance establishing the Mission Bay Transportation Improvement Fund spells out shares of GSW revenues that are to be spent on transportation, including a cap of 90% of estimated revenues directly associated with the project. This would appear to guarantee that the General Fund will be increased by at least 10% of revenues from the project. The ordinance has even been amended to indicate that if SFMTA's expenses exceed the revenues from the Warriors project, "□ [I]f the revenue cap



is insufficient to cover SFMTA's expenditures for transportation services to the Warriors Project, then the Warriors will be responsible to provide additional transportation services to comply with EIR mitigation measures TR-2b and TR-18. (Nov. 9 staff report, p. 10). It is not clear the extent to which this language obligates GSW to do anything other than work with the City to pursue one or more of a list of strategies. This language is not necessarily strong enough to ensure that future shortfalls will not occur.

This provision appears to be a guarantee that the General Fund will at worst be left whole. However, this amendment applies only to the SFMTA expenditures. There are other expenditures, including police, DPW, and debt servicing that are not covered by this amendment. If it does happen that SFMTA's expenses exceed revenues from the Warriors project, the City's General Fund will still be responsible for these expenses, which amount to \$3.2 million. In a year where SFMTA expenses are high and revenues are low, the existence of the Event Center will result in the balance of the General Fund being reduced by \$3.2 million, with correspondingly fewer general services provided by the City to its residents.

**Important note:** If it is ever the case that revenues are less than SFMTA expenses, it will necessarily be the case that the General Fund will run a deficit of between \$2.1 and \$3.2 million. The requirement that the Warriors provide transit services in this case does *nothing* to cover these other Event Center related obligations.<sup>23</sup>

In the ordinance, the City has also made a commitment to ameliorate any remaining congestion issues related to the functioning of the hospital at UCSF. Remaining congestion issues and any sense of their cost are significant unknowns. Should they be significant, this would represent another financial obligation of the City's General Fund.

There has also been language used that indicates that there is no public subsidy of the Arena. In announcing the deal, Warriors COO Rick Welts said:

"We're the only sports team in America doing this all w/ private funds, on private land, with *no public subsidy*." (Italics added.)

This is simply not true. Any economic activity coming to the City will generate revenues. Some of these revenues, from the TIDF, for instance, are expected to support the activity. The remaining revenues are expected to supplement the services provided by the City to its residents. In the case of the GSW project, \$25.4 million in one-time revenues and \$10.1 million in revenues in each subsequent year will be spent to facilitate the Event Center. These funds represent a clear and present public subsidy of the project.

---

<sup>23</sup>Confirmed with the Budget and Legislative Analyst's office, 11/24/15.







# **EXHIBIT 5**



## Osha Meserve

---

**From:** Public Records <PublicRecords@baaqmd.gov>  
**Sent:** Monday, November 16, 2015 5:37 PM  
**To:** osha@semlawyers.com  
**Subject:** PRA Request  
**Attachments:** N007359\_REP01 Mission Bay NOA sample.pdf; N007358\_REP01 Mission Bay NOA sample 2.pdf

Good evening,

Attached are the lab reports. In speaking with the supervisor there are no additional reports. Your request is not considered closed.

Rochelle Reed  
Public Records Coordinator  
415-749-4784  
[Publicrecords@baaqmd.gov](mailto:Publicrecords@baaqmd.gov)





# Bulk Asbestos Material Analysis

(Air Resources Board Method 435, June 6, 1991)

Bay Area Air Quality Mgmt. District  
Project Manager

939 Ellis St  
San Francisco, CA 94109

**Client ID:** 2763  
**Report Number:** N007359  
**Date Received:** 08/06/15  
**Date Analyzed:** 08/07/15  
**Date Printed:** 08/07/15

**Job ID/Site:** Pump Station #5, 16th St. + Terry Francois Blvd.

**FALI Job ID:** 2763

**PLM Report Number:** N/A

**Total Samples Submitted:** 1

**Total Samples Analyzed:** 1

## Sample Preparation and Analysis:

Samples were analyzed by the Air Resources Board's Method 435, Determination of Asbestos Content of Serpentine Aggregate. Samples were ground to 200 particle size in the laboratory. Approximately 1 pint was retained for analysis. Samples were prepared for observation according to the guidelines of Exception I and Exception II as defined by the 435 Method. Samples which contained less than 10% asbestos were prepared for observation according to the point count technique as defined by the 435 Method. This analysis was performed with a standard cross-hair reticle.

Sample ID	Lab Number	Layer Description
1	11671293	Grey/Green Stones

### Point Count Results:

Number of asbestos points counted:	15
Number of non-empty points:	400
Matrix percentage of entire	100
<b>Percent asbestos in matrix:</b>	<b>3.8</b>
Visual estimation percentage:	2.0
Asbestos type(s) detected:	Chrysotile

Comment:

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification (LOQ) = 0.25%. Trace denotes the presence of asbestos below the LOQ. ND = None Detected.

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.





# Bulk Asbestos Material Analysis

(Air Resources Board Method 435, June 6, 1991)

Bay Area Air Quality Mgmt. District  
Project Manager

939 Ellis St  
San Francisco, CA 94109

**Client ID:** 2763  
**Report Number:** N007358  
**Date Received:** 08/06/15  
**Date Analyzed:** 08/07/15  
**Date Printed:** 08/07/15

**Job ID/Site:** Mission Bay Development Group Property Stockpile, 16th St. + Terry Francois Blvd.

**PLM Report Number:** N/A

**FALI Job ID:** 2763  
**Total Samples Submitted:** 1  
**Total Samples Analyzed:** 1

## Sample Preparation and Analysis:

Samples were analyzed by the Air Resources Board's Method 435, Determination of Asbestos Content of Serpentine Aggregate. Samples were ground to 200 particle size in the laboratory. Approximately 1 pint was retained for analysis. Samples were prepared for observation according to the guidelines of Exception I and Exception II as defined by the 435 Method. Samples which contained less than 10% asbestos were prepared for observation according to the point count technique as defined by the 435 Method. This analysis was performed with a standard cross-hair reticle.

Sample ID	Lab Number	Layer Description
1	11671292	Grey/Green Stone

### Point Count Results:

Number of asbestos points counted:	13
Number of non-empty points:	400
Matrix percentage of entire	100
<b>Percent asbestos in matrix:</b>	<b>3.3</b>
Visual estimation percentage:	2.0
Asbestos type(s) detected:	Chrysotile

Comment:

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification (LOQ) = 0.25%. Trace denotes the presence of asbestos below the LOQ. ND = None Detected.

Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified. All samples were received in acceptable condition unless otherwise noted.



# **EXHIBIT 6**





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

AUG 10 2004

OFFICE OF  
SOLID WASTE AND EMERGENCY  
RESPONSE

OSWER 9345.4-05

**MEMORANDUM**

**SUBJECT:** Clarifying Cleanup Goals and Identification of New Assessment Tools for Evaluating Asbestos at Superfund Cleanups

**FROM:** Michael B. Cook, Director  
Office of Superfund Remediation and Technology Innovation

**TO:** Superfund National Policy Managers, Regions 1-10

**Purpose**

The purpose of this memo is twofold. The first purpose is to clarify that Regions should develop risk-based, site-specific action levels to determine if response actions should be taken when materials containing less than 1 percent asbestos (including chrysotile and amphibole asbestos) are found on a site. Regions should not assume that materials containing less than 1 percent asbestos do not pose an unreasonable risk to human health. The second purpose is to outline some activities underway to assist in the evaluation of asbestos risks at Superfund sites.

It is important to note that this memorandum is not a regulation itself, nor does it change or substitute for any regulations. Thus, it does not impose legally binding requirements on EPA, States, or the regulated community. This memorandum does not confer legal rights or impose legal obligations upon any member of the public. Interested parties are free to raise questions and objections about the substance of this memorandum and the appropriateness of the application of this memorandum in a particular situation. EPA and other decision makers retain the discretion to adopt approaches on a case-by-case basis that differ from those described in this memorandum. The use of the word "should" in this document means that something is suggested or recommended, but not required.

**Background**

The 1 percent threshold for asbestos-containing materials was first used in the 1973 National Emissions Standards for Hazardous Air Pollutants (NESHAP), where the intent of the threshold was:



*... to ban the use of materials which contain significant quantities of asbestos, but to allow the use of materials which would: (1) contain trace amounts of asbestos which occur in numerous natural substances, and (2) include very small quantities of asbestos (less than 1 percent) added to enhance the material's effectiveness. (38 FR 8821)*

All subsequent EPA regulations and the Asbestos Hazardous Emergency Response Act Statute included this 1 percent threshold. In the 1990 NESHAP revisions, EPA retained the threshold, stating that it was related to the phase contrast microscopy (PCM) analytical method detection limits. The Occupational Safety and Health Administration (OSHA) Standards also defined an asbestos-containing material as a material containing more than 1 percent of asbestos<sup>1</sup> (29 CFR Part 1910.1001 and 29 CFR Part 910.134). The wide use of the 1 percent threshold in regulations may have caused site managers to assume that levels below the threshold did not pose an unreasonable risk to human health. However, it is important to note that the 1 percent threshold concept was related to the limit of detection for the analytical methods available at the time and also to EPA's prioritization of resources on materials containing higher percentages of asbestos.

### **Issue**

Currently, many site managers continue to employ the use of the 1 percent threshold to determine if response actions for asbestos should be undertaken. However, based upon scientific discussions and findings reported by EPA and ATSDR from the Libby, Montana Superfund site, as well as EPA's "Peer Consultation Workshop on a Proposed Asbestos Cancer Risk Assessment<sup>2</sup>," there may be confusion regarding the appropriate use of the 1 percent threshold at Superfund sites. This concern was discussed at EPA's "Asbestos Site Evaluation, Communication, and Cleanup Workshop<sup>3</sup>," and it was concluded that the 1 percent threshold for asbestos in soil/debris as an action level may not be protective of human health in all instances of site cleanups. The 1 percent threshold is not risk-based and an accurate exposure value could only be determined through site sampling techniques that generate fibers from soil and bulk samples. Therefore, we recommend the development of risk-based, site-specific action levels to determine if response actions for asbestos in soil/debris should be undertaken.

Recent data from the Libby site and other sites provide evidence that soil/debris containing significantly less than 1 percent asbestos can release unacceptable air concentrations of all types of asbestos fibers (i.e., serpentine/chrysotile and amphibole/tremolite). The most critical determining factors in the level of airborne concentrations are the degree of disturbance, which is associated with the level of activity occurring on the site, and the presence of complete exposure pathways. For example, activities such as excavation or plowing generate large amounts of dust that can result in the generation of airborne fibers that can be inhaled even from a complex soil matrix. To address this evolving issue, OSRTI will be hosting a review of methods for determining conversion of soil to air concentrations in 2004.



## **Future Action**

OSRTI has formed three technical working groups to assist in developing guidance and policy relating to risk assessment, field sampling, and analytical methods. These working groups have already contributed to a new toolbox that is located on the EPA Intranet. The location of the tool box is <http://intranet.epa.gov/osrtinet/hottopic.htm>.

The toolbox will be continually updated as products are developed and will eventually contain information on risk assessments, generic site sampling, and analytical approaches for asbestos cleanup projects. In the interim, numerous site reports that discuss specific concerns and issues from current asbestos site actions are contained in the toolbox. Additionally, to facilitate the development of sampling plans, there are examples of approved site sampling plans with data quality objectives, and a list of asbestos analytical laboratories which have passed an EPA audit.

Our goal is to have the majority of the guidance and policy documents prepared by the end of this year. If you have any questions, please consult with Richard Troast of my staff, who is the lead scientist within OSRTI for asbestos. He can be reached at (703) 603-8805 or by e-mail at: [troast.richard@epa.gov](mailto:troast.richard@epa.gov).

cc:

Nancy Riveland, Superfund lead Region Coordinator, USEPA Region 9  
Eric Steinhaus in Region 8  
NARPM Co-Chairs  
OSRTI Managers  
Robert Springer, Senior Advisor to OSWER AA  
Jim Woolford, FFRRO  
Debbie Dietrich, OEPPR  
Matt Hale, OSW  
Cliff Rothenstein, OUST  
Linda Garczynski, OBCR  
Dave Kling, FFEO  
Susan Bromm, OSRE  
Earl Salo, OGC  
Charles Openchowski, OGC  
Joanna Gibson, OSRTI Documents Coordinator

Endnotes:

1. Pursuant to industry comments, the 1994 amendments to the OSHA Standards incorporated a definition of asbestos-containing material that included the 1 percent threshold to be consistent with EPA, and noted that the National Institute for



Occupational Safety and Health (NIOSH) had raised questions whether even one percent may be below the accuracy level for certain microscopic methods. However, OSHA's Hazard Communication Standard requires a Material Safety Data Sheet (MSDS) to be prepared by the manufacturer or importer of a chemical substance, mixture, or product containing more than 0.1 percent of any carcinogen, including asbestos. Additionally, OSHA has recently issued several letters stating that some of the requirements in the OSHA Asbestos Construction Standard (29 CFR 1926.1101) do cover materials containing less than one percent asbestos.

2. USEPA's *Peer Consultation Workshop on a Proposed Asbestos Cancer Risk Assessment* was held in San Francisco, California on February 25-27, 2003. The purpose of the workshop was to discuss the scientific merit of the proposed methodology developed for EPA by Dr. Wayne Berman and Dr. Kenny Crump. The proposed methodology distinguishes carcinogenic potency by asbestos fiber size and asbestos fiber type and advocates use of a new exposure index to characterize carcinogenic risk. Proceedings from this conference can be located at:  
<http://www.epa.gov/superfund/programs/risk/asbestos/index.htm>.
3. USEPA's *Asbestos Site Evaluation, Communication and Cleanup Workshop* was held in Keystone, Colorado on September 23-26, 2003. The purpose of the workshop was to provide an opportunity to share lessons learned from working on large sites contaminated with asbestos. The meeting was also used to identify key outstanding technical and policy issues, and to begin to develop a consistent approach to measuring "success", especially short-term impacts and long-term risk reduction. Proceedings from this conference can be located at:  
<http://www.epa.gov/superfund/programs/risk/asbestos/workshop/index.htm>.



# **EXHIBIT 7**



## Osha Meserve

---

**From:** Prowell, Cheryl@Waterboards <Cheryl.Prowell@waterboards.ca.gov>  
**Sent:** Monday, November 23, 2015 9:44 AM  
**To:** Meserve, Osha@semlawyers.com  
**Cc:** Lee, Randy@Waterboards; Hill, Stephen@Waterboards; Pettijohn, Julie@DTSC; Toth, Karen@DTSC  
**Subject:** RE: Status of Mission Bay Wastes

Osha,

Thank you for your email. We have been looking into the issues that you have raised. Randy Lee is working to get the regular monitoring reports documenting compliance with the Risk Management Plan uploaded to our GeoTracker database. I anticipate that these reports will address the majority of your concerns. We will give you a more detailed answer once these reports are publically available.

Cheryl

---

**From:** Osha Meserve [<mailto:osha@semlawyers.com>]  
**Sent:** Friday, November 20, 2015 4:33 PM  
**To:** Prowell, Cheryl@Waterboards  
**Cc:** Lee, Randy@Waterboards; Hill, Stephen@Waterboards; Pettijohn, Julie@DTSC; Toth, Karen@DTSC  
**Subject:** Status of Mission Bay Wastes

Hi Cheryl,

It has come to my attention that the piles of asbestos containing fill have been moved from the proposed Warrior's arena site, and possibly transported to a landfill or to a property immediately northeast. We respectfully request information regarding the tracking of the staged wastes at, and between, sites (including the Warriors site) within the Mission Bay Development area.

The documented asbestos containing materials are required to have a specific Asbestos Dust Management Plan before it is disturbed (ADMP). It is not clear to us that the development activities have been completing and following these plans. In particular, we further request evidence that this was created and applied to the recent asbestos contaminated soil removal activities.

In addition to the ADMP, we request documentation that a site mitigation plan for the hazardous materials was created and applied to the site for the prior remedial activities, the staged soil management, and the recent removal action. We also request a copy of the Site Specific Health and Safety Plan (SSHSP) that should have been completed for these three same site activities, as well as evidence that this was submitted to DPH. It appears that the SSHSP is only for the excavation of the foundation of the proposed buildings and not for the staged soils.

We also again request that the stormwater Best Management Practices be appropriately applied to, and maintained on, Terry François Boulevard. The stormwater drains remain clogged with soil, and the BMPs damaged, including the 'Protect the Bay' placards, on the western side of the street along the site.

Thank you,  
Osha

Osha R. Meserve



*Soluri Meserve*

1010 F Street, Suite 100

Sacramento, CA 95814

☎ tel: 916.455.7300 ▪ 📠 fax: 916.244.7300 ▪ 📱 mobile: 916.425.9914 ▪ ✉ email: [osha@semlawyers.com](mailto:osha@semlawyers.com)

This email and any attachments thereto may contain private, confidential, and privileged material for the sole use of the intended recipient.





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BOARD OF SUPERVISORS  
SAN FRANCISCO  
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## Notice of Electronic Transmittal

### Planning Department Response to the Appeal of Certification of Subsequent Environmental Impact Report Event Center and Mixed-use Development at Mission Bay Blocks 29-32

**DATE:** November 30, 2015

**TO:** Angela Calvillo, Clerk of the Board of Supervisors

**FROM:** Tiffany Bohee, Executive Director  
Sally Oerth, Deputy Director  
Chris Kern, Case Planner, Environmental Planning

**RE:** File No. 150990 Appeal of Certification of Subsequent  
Environmental Impact Report Event Center and Mixed-use  
Development at Mission Bay Blocks 29-32

**HEARING DATE:** December 8, 2015

In compliance with San Francisco's Administrative Code Section 8.12.5 "Electronic Distribution of Multi-Page Documents," OCII has submitted a multi-page response to the Appeal of Certification of Subsequent Environmental Impact Report in digital format. Hard copies of this response have been provided to the Clerk of the Board for distribution to the appellants and project sponsor by the Clerk of the Board. A hard copy of this response is available from the Clerk of the Board. Additional hard copies may be requested by contacting Chris Kern of the Planning Department at 415-575-9037.

Edwin M. Lee  
MAYOR

Tiffany Bohee  
EXECUTIVE DIRECTOR

Mara Rosales  
CHAIR

Miguel Bustos  
Marily Mondejar  
Leah Pimentel  
Darshan Singh  
COMMISSIONERS

One S. Van Ness Ave.,  
5th Floor,  
San Francisco, CA  
94103

415 749 2400

www.sfocii.org



# APPEAL OF CERTIFICATION OF FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

## Golden State Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32

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#### Exhibit B — Appeal Materials Submitted by Appellant

#### Exhibit C — OCII Resolution No. 69-2015 Certifying the Final Subsequent Environmental Impact Report for the Golden State Warriors Event Center and Mixed-Use Development on Blocks 29-32 in Mission Bay South

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Edwin M. Lee  
MAYOR

Tiffany Bohee  
EXECUTIVE DIRECTOR

Mara Rosales  
CHAIR

Miguel Bustos  
Marily Mondejar  
Leah Pimentel  
Darshan Singh  
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5th Floor,  
San Francisco, CA  
94103

415 749 2400

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**Exhibit D — OCII Responses to Late Comments (continued)**

Section 4. Responses to Late Comments on the AB 900 Process	D-100
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Attachment A. Economic & Planning Systems, Inc., *Mission Bay Blocks 29-32  
Office Alternative*, April 20, 2015

Attachment B. Examples of Compliance Submittals to the San Francisco Planning  
Department Pursuant to a Verification of Compliance with Construction  
Emissions Minimization Plan (CEMP)

**Exhibit E — Late Comments (on CD)**





**APPEAL OF CERTIFICATION OF  
FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT  
Event Center and Mixed-Use Development at Mission Bay Blocks 29-32**

**Executive Summary**

**DATE:** November 30, 2015

**TO:** Angela Calvillo, Clerk of the Board of Supervisors

**FROM:** Tiffany Bohee, Executive Director  
Sally Oerth, Deputy Director  
Chris Kern, Case Planner, Environmental Planning, (415) 575-9037

**RE:** Board of Supervisors File No. 150990  
OCII Case No. ER 2014-919-97;  
Planning Department Case No. 2014.1441E

**Appeal of Certification of Final Subsequent Environmental Impact  
Report on the Event Center and Mixed-Use Development at Mission  
Bay Blocks 29-32**

**ATTACHMENTS:** Exhibit A — OCII Response to Appeal of Certification of Final  
Subsequent Environmental Impact Report

Exhibit B — Appeal Materials Submitted by Appellant

Exhibit C — OCII Resolution No. 69-2015 Certifying the Final  
Subsequent Environmental Impact Report for the Golden State  
Warriors Event Center and Mixed-Use Development on Blocks 29-32 in  
Mission Bay South

Exhibit D — OCII Responses to Late Comments

Exhibit E — Late Comments (on CD)

**HEARING DATE:** December 8, 2015

---

**PROJECT SPONSOR:** GSW Arena LLC

**PROJECT CONTACT:** David Kelly, (510) 986-2200

**APPELLANT:** Mission Bay Alliance

---

Edwin M. Lee  
MAYOR

Tiffany Bohee  
EXECUTIVE DIRECTOR

Mara Rosales  
CHAIR

Miguel Bustos  
Marily Mondejar  
Leah Pimentel  
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## INTRODUCTION

This memorandum is a response ("Appeal Response") to the letter of appeal ("Appeal Letter") to the Board of Supervisors (the "Board") regarding the proposed Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 (the "proposed project" or "project"), which is under the jurisdiction of the Office of Community Investment and Infrastructure ("OCII").

The Mission Bay Alliance ("Appellant") filed an appeal on November 13, 2015 on two issues:

1. the certification of a Final Subsequent Environmental Impact Report ("Final SEIR") by the Commission on Community Investment and Infrastructure ("OCII Commission") under the California Environmental Quality Act ("CEQA") for the proposed project as set forth in OCII Commission Resolution 69-2015 (Exhibit C of this Appeal Response); and
2. the OCII Commission's adoption of the CEQA Findings on the proposed project as set forth in OCII Commission Resolution 70-2015.

By OCII Commission Resolution No. 33-2015, the OCII Commission provided for a process of appeal of its certification of an Environmental Leadership Project to the Board of Supervisors in its capacity as the governing body of the successor agency to the Redevelopment Agency. Resolution No. 33-2015 provided for the Executive Director of the OCII Commission to determine whether a valid appeal has been filed and if so, to advise the Clerk of the Board of Supervisors to accept the appeal. On November 16, 2015, the Executive Director advised the Clerk that the Mission Bay Alliance had filed a valid appeal on the first issue: the certification of the Final Subsequent Environmental Impact Report for the project. Accordingly, this Appeal Response focuses on the first issue regarding the certification of the Final SEIR.

The second issue listed in the appeal, regarding the CEQA Findings, is not appealable. Under OCII Commission Resolution No. 33-2015, persons or entities that submit comments on an Environmental Leadership project may appeal OCII's certification of the EIR for the project to the Board.<sup>1</sup> The grounds for the appeal under Resolution No. 33-2015 are limited to certification of the EIR; thus, no appeal is available from OCII Commission's approval of Resolution No. 70-2015 adopting CEQA Findings, including adopting a mitigation monitoring and reporting program and a statement of overriding considerations. On November 20, 2015, by letter to the Mission Bay Alliance, the OCII Commission Executive Director advised that she rejected the appeal regarding the CEQA Findings for the reasons stated in that letter.<sup>2</sup> Therefore, this appeal response does not address the appeal of the second issue. The appeal letter states that it was filed pursuant to CEQA Section 21151(c), OCII Resolution No. 33-2015, a memorandum from the Clerk of the Board of Supervisors specifying the procedures for filing an appeal under Resolution No. 33-2015, and the ordinance establishing the OCII Commission (Board Ordinance 215-12 (File 1200898)). To clarify, it is OCII's position that this appeal is authorized only as a result of OCII Resolution No. 33-2015 and is not required by or intended to function as an appeal under CEQA Section

---

<sup>1</sup> Bohee, Tiffany, Executive Director, OCII. Letter to Thomas Lippe, November 20, 2015.

<sup>2</sup> *Ibid.*



21151(c). Further, nothing in Board Ordinance 215-12 provides for such an appeal process or right of appeal.<sup>3</sup>

The decision before the Board is whether to uphold the OCII Commission's decision to certify the Final SEIR and deny the appeal, or to overturn the OCII Commission's decision to certify the Final SEIR and return the project to the OCII staff for further environmental review. While no appeal is available from OCII's approval of Resolution Nos. 70-2015, if the Board — in response to the appeal from OCII Commission Resolution 69-2015 — reverses OCII's certification of the Final SEIR, then "prior project approvals would be rescinded to allow [the OCII Commission] to, if and as necessary, adopt additional findings, revise the F[SEIR], or amend the project approvals."<sup>4</sup>

## PROJECT DESCRIPTION

GSW Arena LLC (GSW), an affiliate of Golden State Warriors, LLC, which owns and operates the Golden State Warriors National Basketball Association (NBA) team, proposes to construct a multi-purpose event center and a variety of mixed uses, including office, retail, open space and structured parking on an approximately 11-acre site on Blocks 29-32 within the Mission Bay South Redevelopment Plan Area of San Francisco. The project site is bounded by South Street on the north, Third Street on the west, 16th Street on the south, and by the future planned realigned Terry A. Francois Boulevard on the east. The proposed event center would host the Golden State Warriors basketball team during the NBA season, as well as provide a year-round venue for a variety of other uses, including concerts, family shows, other sporting events, cultural events, conferences and conventions.

The project site is located within the Mission Bay South Redevelopment Plan Area, subject to the development controls of the Mission Bay South Redevelopment Plan, and Mission Bay South Design for Development, and other related documents. Currently, the site contains paved surface parking lots on the west and north portions of the site, and the remainder of the site consists of undeveloped ruderal areas largely covered in gravel and surrounded by chain link fencing. The site is owned by the Golden State Warriors, LLC.

## ENVIRONMENTAL REVIEW PROCESS FOR THE PROJECT

On November 19, 2014, OCII issued a Notice of Preparation/Initial Study, which analyzed the potential environmental impacts of the proposed project, and OCII conducted a public scoping meeting on December 9, 2014. Based on the analysis in the Initial Study, as well as detailed analyses and reports prepared in support of the analysis, a Draft SEIR was issued on June 5, 2015. Written public comments were received during the public comment period between June 5, 2015 and July 27, 2015, and a public hearing before the OCII Commission was held on the Draft SEIR on June 30, 2015, at which time public testimony was received. OCII staff then prepared the Responses to Comments ("RTC") document, published on October 23, 2015, to address environmental issues raised by comments received during the public comment period and at the public hearing for the Draft SEIR. The RTC document

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<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*



contained additional analysis and reports that verified and expanded upon the Draft SEIR contents. OCII staff prepared revisions to the text of the SEIR in response to comments received or based on additional information that became available during the public review period, and corrected errors in the Draft SEIR.

The Final SEIR consists of the Draft SEIR together with the RTC document. On November 3, 2015, the OCII Commission certified the Final SEIR. This was based on the determination that the contents of the Final SEIR and the procedures through which it was prepared, publicized, and reviewed, complied with CEQA and the CEQA Guidelines. The OCII Commission found the Final SEIR to be adequate, accurate and objective, that it reflects the independent analysis and judgment of the OCII staff and Commission, and that the RTC document contains no significant revisions to the Draft SEIR.

## **SUMMARY OF APPEAL ISSUES**

The Mission Bay Alliance filed an appeal of the Final SEIR certification on November 13, 2015. Every issue raised by the Appellant is described and responded to in Exhibit A of this Appeal Response, and the appeal materials submitted by the Appellant are presented in Exhibit B. The specific issues raised in the appeal are summarized below, using the same organization and numbering system shown in the appeal, even though many of the issues are redundant.

### **Issues Raised in the Appeal**

- A.1 Public Comment: Noticing and timing of public comment on the RTC document
- B.1 Project Description: Changes in the project description presented in the SEIR
- C.1 Tiering: Reliance of SEIR on 1990 and 1998 Mission Bay EIRs
- D.1 AB900 and Administrative Record: Compliance with requirements for the administrative record under AB 900
- E.1 Alternatives: Analysis of the No Project Alternative
- E.2 Alternatives: Feasibility of the Off-site Alternative
- E.3 Alternatives: Feasibility of an additional site proposed by the appellant
- F.1 Air Quality Impacts
- F.2 Air Quality: Significance thresholds for criteria air pollutants
- F.3 Air Quality: Analysis of construction and operational-related emissions for criteria air pollutants and toxic air contaminants
- F.4 Air Quality: Mitigation measure for construction impacts
- F.5 Air Quality: Mitigation measure requiring purchase of emission offsets
- F.6 Air Quality: Health risk assessment
- F.7 Air Quality: Analysis for construction-related dust pollution
- F.8 Air Quality: Mitigation measures to consider diesel alternatives
- F.9 Air Quality: Operational mitigation measure for electrical outlets
- F.10 Air Quality: Impacts of construction of wastewater improvements
- F.11 Air Quality: Impacts of project refinements



### Issues Raised in the Appeal

- F.12 Air Quality: Mitigation measure requiring purchase of emission offsets, new information
- G.1 Transportation Impacts
- G.2 Transportation: Traffic impacts on the entire affected environment
- G.3 Transportation: Impacts on intersections and freeway ramps
- G.4 Transportation: Impacts on intersections where parking control officers (PCOs) are proposed
- G.5 Transportation: Construction impacts, including cumulative impacts
- G.6 Transportation: Operational traffic and transit impacts
- G.7 Transportation: Cumulative impacts
- G.8 Transportation: Transit impact analysis methodology
- G.9 Transportation: Implementation of mitigation measures
- G.10 Transportation: Effectiveness of mitigation measures
- G.11 Transportation: Project description assumptions for transportation improvements
- G.12 Transportation: Enforceability of mitigation measures
- G.13 Transportation: Specificity of fair-share fee mitigation measure
- G.14 Transportation: Transit analysis baseline data
- G.15 Transportation: Traffic analysis baseline data
- G.16 Transportation: Completeness of transportation impacts
- G.17 Transportation: Interrelated issues
- G.18 Transportation: Impacts of at-grade rail crossings on 16th Street
- G.19 Transportation: Truck loading and staging provisions
- G.20 Transportation: Emergency vehicle access impact to UCSF hospitals
- G.21 Transportation: Responses to comments on impacts to BART
- G.22 Transportation: Traffic impacts of project refinements
- H.1 Hydrology, Water Quality, and Biological Impacts
- H.2 Utilities: Wastewater infrastructure impacts
- H.3 Water Quality: Impacts on San Francisco Bay from wastewater discharges
- H.4 Biological Resources: Impacts on wetlands and wildlife
- H.5 Biological Resources: Wetland impacts
- H.6 Utilities: Cumulative impacts on the capacity of the Mariposa Pump Station
- H.7 Hydrology: Flooding risk and inundation impacts
- I.1 Noise Impacts
- I.2 Noise: Use of San Francisco Noise Ordinance
- I.3 Noise: Significance thresholds based on increase over ambient
- I.4 Noise: Significance thresholds based on human health and welfare
- J.1 Greenhouse Gases Emissions Impacts
- J.2 Greenhouse Gases Emissions. Approach to analysis methodology



### **Issues Raised in the Appeal**

- J.3 Greenhouse Gases Emissions. Qualitative vs. quantitative analysis
- J.4 Greenhouse Gases Emissions: Mitigation
- J.5 Greenhouse Gases Emissions: Improvement vs. mitigation measures
- J.6 Greenhouse Gases Emissions: Inventory of emissions
- K.1 Geology and Soils Impacts
- K.2 Geology and Soils: Use of 1998 Mission Bay FSEIR analysis
- K.3 Geology and Soils: Mitigation
- K.4 Geology and Soils: Impacts
- K.5 Geology and Soils: Impact analysis
- L.1 Hazards and Hazardous Materials: Supplemental review
- L.2 Hazards and Hazardous Materials: Use of 1998 Mission Bay FSEIR analysis
- L.3 Hazards and Hazardous Materials: New information
- L.4 Hazards and Hazardous Materials: Naturally-occurring asbestos
- L.5 Hazards and Hazardous Materials: Impact analysis
- M.1 Urban Decay: Impacts in Oakland
- M.2 Urban Decay: Response to comments
- M.3 Urban Decay: Analysis
- N.1 Wind: Impact to open space within the project site
- N.2 Wind: Response to comments
- N.3 Wind: New wind impact in RTC document
- O.1 Recreation: Impacts on Bayfront Park
- O.2 Recreation: Impacts on Bayfront Park
- O.3 Recreation: Impacts on Bayfront Park
- O.4 Recreation: Impacts on Bayfront Park
- P.1 Utilities: Impacts on water supply infrastructure
- P.2 Utilities: Impacts on water supply infrastructure
- P.3 Utilities: Water supply assessment
- P.4 Utilities: Stormwater treatment facilities impacts
- P.5 Energy: New information in the RTC document
- Q.1 Land Use: Consistency with the Mission Bay South Redevelopment Plan
- Q.2 Land Use: Consistency with the Mission Bay South Redevelopment Plan
- Q.3 Land Use: Community character
- R.1 Cultural Resources Impacts
- S.1 CEQA Findings
- S.2 Statement of Overriding Considerations



The grounds for the appeal are mainly a compilation and reiteration of comments on a wide range of issues that were previously submitted by the Appellant, either on the Draft SEIR, the RTC document, or the Final SEIR. Therefore, the responses in Exhibit A to the issues raised in the appeal include cross references to the detailed responses provided by topic in the RTC document. The responses in Exhibit A also reference more detailed responses contained in Exhibit D where appropriate. As explained in more detail below, Exhibit D contains responses to any comments submitted by Appellant or another party that are not responded to in the RTC document because they were received so late that a response could not be included in that document (referred to in this Appeal Response as “Late Comments”). CEQA does not require published responses to any comments received after the close of the public comment period, which ended on July 27, 2015. However, this Appeal Response includes written responses to all late comments submitted by the Appellant, in order to provide the Board of Supervisors with a comprehensive appeal document.

None of the comments raised in the appeal present new information that affects the analysis or conclusions of the Final SEIR on the project.

## LATE COMMENTS

The RTC document published on October 23, 2015 provides written responses to all comments received during the public review period as well as responses to a number of comments received after the close of the public review period. However, OCII received numerous late comment letters that were received so late that a response could not be included in the RTC document as well as additional comment letters received after the publication of the RTC document. Some of these late comment letters raise comments on the Draft SEIR, while others raise comments on the RTC document or other project-related actions.

OCII staff presented written responses to the OCII Commission to five of those late comment letters at the OCII Commission meeting on November 3, 2015, and also presented oral responses to several of the late comments received immediately prior to or at the meeting. OCII and the City have continued to receive additional late comments since the November 3, 2015 OCII Commission meeting.

Exhibit D of this Appeal Response addresses all of these late comment letters and also contains responses to public testimony received during the public meeting on project approval actions.<sup>5</sup> It reproduces all of the substantive issues raised in these late comments and provides written responses to those comments, using the same format as the RTC document (i.e., comments and responses are organized by topic). Exhibit D includes a verbatim copy of the substantive late comments, with similar comments on the same topic grouped together, followed by a comprehensive response on that topic. Exhibit E of this Appeal Response contains copies of the late comment letters and oral comments from the Appellant presented at the November 3, 2015 OCII Commission (excerpted from the meeting transcript), with coding in the margin that corresponds to the coding shown in the

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<sup>5</sup> Only public testimony regarding a critique of the SEIR is included in Exhibit D.



responses in Exhibit D. Due to the volume of late comments and because all substantive comments are reproduced verbatim in Exhibit D, Exhibit E is provided on CD.

Although Exhibit D appears voluminous, most of the information within the document is not new. This is because the issues raised in these late comments are reiterations or elaborations of the same comments previously submitted by the Appellant and are already responded to in the RTC document. Staff created Exhibit D in large part for the ease of members of the Board, so that they would not have to flip back and forth between various documents, including the RTC document. The issues addressed in Exhibit D cover a wide range of topic areas, including but not limited to: environmental review process; environmental justice; urban decay; fiscal feasibility; AB 900 process; greenhouse gases emissions; plans and policies; archaeological resources; transportation; noise; air quality; wind and shadow; recreation; utilities; biological resources; geology; hazardous materials; and alternatives. None of these are new issues. The responses provided in Exhibit D summarize and refer to the responses already presented in the RTC document, and where appropriate, elaborate on the response.

As explained in detail in Exhibit D, none of the issues raised in these late comments present new information that affects the analysis or conclusions of the Final SEIR on the project.

## CONCLUSION

OCII staff conducted an in-depth and thorough analysis of the potential physical environmental effects of the proposed project, consistent with CEQA and the CEQA Guidelines. The Appellants have not demonstrated that the Final SEIR is insufficient as an informational document, or that the OCII Commission's findings and conclusions, as set forth in the Final SEIR and certification resolution, are unsupported by substantial evidence. OCII staff conducted all necessary studies and analyses, and provided the OCII Commission with all necessary information and documents in accordance with the Planning Department's environmental checklist and Consultant Guidelines, and pursuant to CEQA and the State CEQA Guidelines. Substantial evidence supports the OCII Commission's findings and conclusions as set forth in the Final SEIR.

For the reasons provided in this Appeals Response, OCII believes that the Final SEIR complies with the requirements of CEQA and the CEQA Guidelines, provides an adequate, accurate, and objective analysis of the potential environmental impacts of the proposed project, is sufficient as an informational document, is correct in its conclusions, and reflects the independent judgment and analysis of the OCII, and that the OCII Commission's certification findings are correct. Therefore, OCII respectfully recommends that the Board uphold the OCII Commission's certification of the Final SEIR.





## Exhibit A

# Responses to Appeal of Certification of Final Subsequent Environmental Impact Report

OCII CASE NO. ER 2014-919-97; PLANNING DEPARTMENT CASE NO. 2014.1441E –  
EVENT CENTER AND MIXED-USE DEVELOPMENT AT MISSION BAY BLOCKS 29-32  
CERTIFIED ON NOVEMBER 3, 2015

### INTRODUCTION

GSW Arena LLC (GSW), an affiliate of Golden State Warriors, LLC, which owns and operates the Golden State Warriors National Basketball Association (NBA) team, proposes to construct a multi-purpose event center and a variety of mixed uses, including office, retail, open space and structured parking on an approximately 11-acre site (Blocks 29-32) within the Mission Bay South Redevelopment Plan Area of San Francisco. The project site is bounded by South Street on the north, Third Street on the west, 16th Street on the south, and by the future planned realigned Terry A. Francois Boulevard on the east. The proposed event center would host the Golden State Warriors basketball team during the NBA season, as well as provide a year-round venue for a variety of other uses, including concerts, family shows, other sporting events, cultural events, conferences and conventions.

The San Francisco Office of Community Investment and Infrastructure (OCII), as lead agency responsible for administering the environmental review for private projects in the Mission Bay North and South Redevelopment Plan Area of San Francisco, published a Notice of Preparation and an Initial Study on the proposed event center and mixed-use development project (proposed project or project) on November 19, 2014, followed by a 30-day scoping period. On June 5, 2015, OCII published the Draft Subsequent Environmental Impact Report (Draft SEIR) on the proposed project, and the 52-day public review period ended on July 27, 2015. On October 23, 2015, OCII published a Responses to Comments (RTC) document that provided written responses to all comments received during the public review period as well as to several late comment letters. The Final SEIR consists of the combined Draft SEIR and RTC document. On November 3, 2015, the Commission on Community Investment and Infrastructure (OCII Commission) certified the Final SEIR as being in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines. On November 13, 2015, the Mission Bay Alliance (Appellant) filed an appeal on the certification of the Final SEIR (see Exhibit B).

In addition to the appeal letter received on November 13, 2015, OCII and other City agencies have received 20 additional late comment letters at the time of and subsequent to the publication of the RTC document regarding the SEIR or the proposed project. Fifteen of the letters were from the Appellant, most of which are referenced in the appeal letter. Four letters were from the following agencies: Bay Area Air Quality Management District (BAAQMD), California Department of Transportation (Caltrans), Metropolitan Transportation Commission (MTC), and University of California, San Francisco (UCSF). One

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letter was from an individual, John William Templeton. Responses to all 20 additional late comment letters submitted at the time of and subsequent to publication of the RTC document are presented, by topic, in Exhibit D.

This Exhibit A contains the responses to the issues contained in the appeal letter. The grounds for the appeal include all of the comments previously submitted by the Appellant in numerous comment letters submitted since June 2015, and the appeal letter cites many of those previously submitted comments as the specific grounds for the appeal. As described above, comments submitted by the Appellant on the Draft SEIR from June 29, 2015 through October 12, 2015 have already been responded to in writing in the RTC document. Late comments from the Appellant submitted from October 13, 2015 to November 13, 2015 are responded to in writing in Exhibit D of this appeal response packet. Therefore, to demonstrate that all comments cited in the appeal have been thoroughly addressed, this appeal response cross references the previous comments cited in the appeal letter with the written responses to those same issues already prepared either in the RTC document, Exhibit D, or both. This cross-reference is shown for all references cited by the Appellant in the appeal letter, using the coding system described below.

The appeal responses follow the same sequencing, numbering system, and organization of topics as the appeal letter, which presents topics labeled from A to S, and the "Appeal Code" refers to the labels presented in the appeal letter. For nearly all of the issues raised, the Appellant cites previously submitted comments, and to document that OCII has prepared detailed responses to all previously submitted comments, this appeal response includes tables that cross reference the document cited in the appeal letter with the Comment Code used in the SEIR for all comments. These comment codes are then in turn cross referenced to the Response Code where the detailed written response is provided, showing the document and starting page number of the response.

The Comment Code is the comment numbering system used in the RTC document and Exhibit D that provides a unique identifier for each comment; the comment code consists of the Commenter Code (see Table 1 below) followed by a number that corresponds to a bracketed portion of that letter on a specific topic, which is shown in the margins of each comment letter in Appendix COM and Appendix PH of the RTC document and in Exhibit E of this appeal response. The Response Code refers to the topic which the response falls under, and whether the response can be found in the RTC document (RTC) or in Exhibit D of the late comments (LC). A list of the Commenter Codes for the multiple letters submitted by the Appellant and a description of the topic codes are presented in Tables 1 and 2, respectively.



**TABLE 1**  
**COMMENTS SUBMITTED BY THE APPELLANT**

Commenter Code	Name of Person and Organization Submitting Comments	Comment Date
<b>COMMENT LETTERS AND PUBLIC TESTIMONY RESPONDED TO IN THE RTC DOCUMENT</b>		
O-MBA1L1	Thomas N. Lippe, Law Offices of Thomas N. Lippe, APC, on behalf of Mission Bay Alliance, Letter submitted to OCII	06/29/2015
O-MBA2S1	Osha R. Meserve, Soluri Meserve, on behalf of Mission Bay Alliance, Letter submitted to OCII	07/09/2015
O-MBA3	Thomas N. Lippe, Susan Brandt-Hawley, Osha Meserve, and Patrick Soluri, on behalf of Mission Bay Alliance, Letter submitted to OCII	07/26/2015
O-MBA4	Thomas N. Lippe, Susan Brandt-Hawley, Osha Meserve, and Patrick Soluri, on behalf of Mission Bay Alliance, Letter submitted to OCII	07/26/2015
O-MBA5	Bruce Spaulding, on behalf of Mission Bay Alliance, Letter submitted to OCII	07/27/2015
O-MBA6B1	Susan Brandt-Hawley, Skyla Olds, Brandt-Hawley Law Group, on behalf of Mission Bay Alliance, Letter submitted to OCII	07/26/2015
O-MBA7S2	Patrick M. Soluri, Osha R. Meserve, Soluri Meserve, on behalf of Mission Bay Alliance, Letter submitted to OCII	07/26/2015
O-MBA8L2	Thomas N. Lippe, Law Offices of Thomas N. Lippe, APC, on behalf of Mission Bay Alliance, Letter submitted to OCII	07/26/2015
O-MBA9L3	Thomas N. Lippe, Law Offices of Thomas N. Lippe, APC, on behalf of Mission Bay Alliance, Letter submitted to OCII	07/25/2015
O-MBA10L4	Thomas N. Lippe, Law Offices of Thomas N. Lippe, APC, on behalf of Mission Bay Alliance, Letter submitted to OCII	07/27/2015
O-MBA11L5	Thomas N. Lippe, Law Offices of Thomas N. Lippe, APC, on behalf of Mission Bay Alliance, Letter submitted to OCII	07/24/2015
O-MBA12S3	Osha R. Meserve, Soluri Meserve, on behalf of Mission Bay Alliance, Letter submitted to OCII	08/07/2015
O-MBA13S4	Osha R. Meserve, Soluri Meserve, on behalf of Mission Bay Alliance, Letter submitted to OCII	10/07/2015
PH-Meserve	Osha Meserve, on behalf of Mission Bay Alliance, Transcript of Public Hearing on Draft SEIR	06/30/15
<b>COMMENT LETTERS AND PUBLIC TESTIMONY RESPONDED TO IN EXHIBIT D</b>		
O-MBA14B2	Susan Brandt-Hawley, Brandt-Hawley Law Group, on behalf of Mission Bay Alliance, Letter submitted to OCII	10/13/15
O-MBA15S5	Osha R. Meserve, Soluri Meserve, on behalf of Mission Bay Alliance, Letter submitted to OCII	10/20/15
O-MBA16S6	Patrick M. Soluri, Soluri Meserve, on behalf of Mission Bay Alliance, Letter submitted to OCII	11/02/15
O-MBA17L5	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, Letter submitted to OCII	11/02/15
O-MBA18L6	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, Letter submitted to OCII	11/02/15
O-MBA19B3	Susan Brandt-Hawley, Brandt-Hawley Law Group, on behalf of Mission Bay Alliance, Letter submitted to OCII	11/02/15
O-MBA20L7	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, Letter submitted to OCII	11/02/15 <sup>a</sup>
O-MBA21L8	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, Email submitted to OCII	11/03/15



**TABLE 1 (Continued)**  
**COMMENT LETTERS SUBMITTED BY THE APPELLANT**

Commenter Code	Name of Person and Organization Submitting Comments	Comment Date
<b>COMMENT LETTERS AND PUBLIC TESTIMONY RESPONDED TO IN EXHIBIT D (cont.)</b>		
O-MBA22B4	Susan Brandt-Hawley, Brandt-Hawley Law Group, on behalf of Mission Bay Alliance, Letter submitted to OCII	11/03/15
O-MBA23S7	Patrick M. Soluri, Soluri Meserve, on behalf of Mission Bay Alliance, Letter submitted to SFMTA	11/03/15
O-MBA24L9	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, Letter submitted to Planning Commission	11/05/15
O-MBA25L10	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, Letter submitted to SFDPW	11/06/15
O-MBA26S8	Osha R. Meserve, Soluri Meserve, on behalf of Mission Bay Alliance, submitted to BOS Budget and Finance Committee	11/09/15
O-MBA27S9	Patrick M. Soluri, Soluri Meserve, on behalf of Mission Bay Alliance, Letter submitted to Entertainment Commission	11/10/15
O-MBA28L11	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, Letter submitted to the SF Board of Supervisors Budget and Finance Committee	11/09/15
O-MBA29L12	Exhibit 6: Smith Engineering and Management [Exhibit to 11/13/15 Appeal Letter from Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to OCII]	11/13/15
PH2-Lippe	Thomas Lippe, on behalf of Mission Bay Alliance, Transcript of Certification Hearing	11/03/15
PH2-Hawley	Susan Brandt Hawley, on behalf of Mission Bay Alliance, Transcript of Certification Hearing	11/03/15

<sup>a</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

**TABLE 2**  
**RESPONSE TOPIC CODES**

Topic Code	Topic	Topic Code	Topic
GEN	General Comments	GHG	Greenhouse Gases Emissions
ERP	Environmental Review Process	WS	Wind and Shadow
AB	AB 900 Process	RE	Recreation
PD	Project Description	UTIL	Utilities
PP	Plans and Policies	PS	Public Services
IO	Impact Overview	BIO	Biological Resources
LU	Land Use	GEO	Geology
PH	Population and Housing	HYD	Hydrology and Water Quality
CULT	Cultural Resources	HAZ	Hazards and Hazardous Material
TR	Transportation	EN	Energy
NOI	Noise	ALT	Alternatives
AQ	Air Quality		



## TOPIC A: PUBLIC COMMENT

**A.1 Appeal Issue:** Appellant states that OCII thwarted public comment on the SEIR due to conflicting information in public notices, and requests that the Final SEIR be recirculated to allow for public comment on the Final SEIR and RTC document.

**Summary of Appeal Response A.1:** The RTC document and Final SEIR were properly noticed and standard review time was afforded for public comment, consistent with CEQA requirement. Recirculation is not warranted.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
A.1	Nov 2, Lippe FSEIR <sup>a</sup>	O-MBA20L7-2	LC ERP-4 Exh D p. D-89	Public comment on RTC document and recirculation

<sup>a</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

## TOPIC B: PROJECT DESCRIPTION

**B.1 Appeal Issue:** The SEIR presents a shifting project description that makes it difficult for decisionmakers and the public.

**Summary of Appeal Response B.1:** As required by CEQA, the Draft SEIR provides a project description in sufficient detail to conduct the impact analysis, using the best assumptions available at that stage of project planning and design. The RTC document describes project refinements that could affect the impact analysis presented in the Draft SEIR. None of the project refinements resulted in substantial changes to the conclusions of Draft SEIR impact analysis. Some of the comments claiming inconsistent project description are misinterpretations of the project that conflate the proposed project with other elements of the Mission Bay Redevelopment Plan or with the project assumptions used in the AB 900 process.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
B.1	July 26, Soluri Meserve	O-MBA7S2-34 O-MBA7S2-36 O-MBA7S2-38	RTC PD-2 RTC p. 13.5-12	Project description assumptions
B.1	Nov 2, Soluri Meserve, pp. 5-7	O-MBA16S6-3	LC GHG-1 Exh D p. D-256	Project description assumptions used for AB 900 analysis



## TOPIC C: TIERING

**C.1 Appeal Issue:** Appellant asserts that tiering the SEIR from the 1990 and 1998 Mission Bay EIRs is not permissible because the project is different from the project described in the prior EIRs and because of the following: new information and/or changes in circumstances; certain resource areas were excluded from the SEIR; and reliance on old documents fails to provide a cohesive, understandable document.

**Summary of Appeal Response C.1:** The SEIR was prepared consistent with CEQA Guidelines Sections 15151 and 15152 regarding Standards for Adequacy of an EIR and Tiering, respectively. CEQA provides for tiering where an EIR is completed for a large-scale plan at an early stage, and further analyses will be prepared at later stages. This is the case here, and CEQA tiering principles were properly applied. The SEIR identifies and appropriately analyzes any new information or change in circumstances relevant to the impact analyses. The appellant is erroneous in stating that resources areas were excluded from the SEIR, because all resource areas required under CEQA were analyzed in the SEIR and associated Initial Study, which was included as an appendix to the SEIR.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
C.1	June 30, oral comments by Osha Meserve	PH-Meserve-4	RTC ERP-7 RTC p. 13.3-22	Tiering
C.1	July 26, Brandt-Hawley Law Group, pp.1-2	O-MBA6B1-2	RTC ERT-6 RTC p. 13.3-14	CEQA Standards of Adequacy
C.1	July 26, Mission Bay Alliance	O-MBA3-1	RTC ERP-7 RTC p. 13.3-22	Tiering
C.1	Nov 2, Soluri Meserve, pp.1-3	O-MBA16S6-1	LC ERP-2 Exh D p. D-74	Tiering

## TOPIC D: AB900 AND ADMINISTRATIVE RECORD

**D.1 Appeal Issue:** Appellant states that OCII has failed to comply with applicable requirements under the Jobs and Economic Improvement through Environmental Leadership Act (commonly referred to as AB 900) for the administrative record.

**Summary of Appeal Response D.1:** Since certification of the proposed project as an environmental leadership development project by the Governor under AB 900, OCII has complied, and continues to comply, with the procedural requirements of AB 900. OCII published and continues to update the administrative record of proceedings for the project, which is available online, in a downloadable format, at <http://www.gsweventcenter.com>.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
D.1	July 9, Soluri Meserve	O-MBA2S1-1	RTC AB-2 RTC p. 13.4-16	AB 900 Administrative Record
D.1	July 26, Mission Bay Alliance	O-MBA4-1	RTC AB-2 RTC p. 13.4-16	AB 900 Administrative Record
D.1	Nov 2, Soluri Meserve, p. 3	O-MBA16S6-2	LC AB-1 Exh D p. D-100	AB 900 Administrative Record

## TOPIC E: ALTERNATIVES

**E.1 Appeal Issue:** The Draft and Final SEIR fail to address and respond to comments regarding the adequacy of the analysis of the No Project alternative.

**Summary of Appeal Response E.1:** The SEIR analysis of the No Project Alternative was prepared in full compliance with CEQA Guidelines Section 15126.6(e), and is based on what would reasonably be expected to occur at the project site should the proposed project not be approved. In this case, the No Project Alternative consists of a hypothetical development scenario that would be consistent with the restrictions and controls established for the site in the Mission Bay South Redevelopment Plan and the South Design for Development. The specific issues raised by the appellant in the cited comment letter are based on erroneous assumptions for allowable development under the Design for Development.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
E.1	July 26, Susan Brandt-Hawley	O-MBA6B1-12	RTC ALT-2 RTC p. 13.24-5	No Project Alternative

**E.2 Appeal Issue:** The Draft and Final SEIR fail to address and respond to comments regarding the failure to consider a potentially feasible off-site alternative.

**Summary of Appeal Response E.2:** The SEIR alternatives analysis included screening of 12 alternative sites in San Francisco and selected one site for detailed analysis, the Off-site Alternative at Piers 30-32 and Seawall Lot 330. This alternative meets the CEQA criteria for alternatives per CEQA Guidelines Section 15126.6(c), (f)(2). OCII disagrees with the appellant's opinion that this was an inappropriate off-site alternative, and for the purposes of this SEIR, believes this to be a potentially feasible alternative.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
E.2	July 26, Susan Brandt-Hawley	O-MBA6B1-13	RTC ALT-3 RTC p. 13.24-8	Off-site Alternative at Piers 30-32 and Seawall Lot 330

**E.3 Appeal Issue:** Appellant asserts that the OCII findings regarding the feasibility of alternatives are not supported by substantial evidence, including the findings regarding the off-site alternative near Pier 80 proposed by the appellant.

**Summary of Appeal Response E.3:** OCII and its consultants have examined the off-site alternative proposed by the appellant and have determined it not to be a feasible alternative for numerous reasons, including: the site and associated parcels are not for sale, are currently under active use, and it is unlikely that the project sponsor can reasonably acquire, control, or otherwise have access to the site within a reasonable time period; the site would require rezoning and amending the Planning Code; a portion of the site would require voter approval of a height increase; and the site would not necessarily avoid or lessen any significant environmental impacts compared to the proposed project and would likely result in the same and possibly more severe significant impacts as the proposed project with respect to transportation, air quality, noise, hydrology, and water quality. Furthermore, no appeal is available from OCII's approval of Resolution No. 70-2015 adopting CEQA findings, including adopting a mitigation monitoring and reporting program and a statement of overriding considerations. (Letter, T. Bohee to T. Lippe, at p. 2 (Nov. 20, 2015).) While no appeal is available from OCII's approval of Resolution Nos. 70-2015, if the Board – in response to the Certification Appeal – reverses OCII's certification of the SEIR, then “prior project approvals would be rescinded to allow CCII to, if and as necessary, adopt additional findings, revise the F[S]EIR, or amend the project approvals.” (*Ibid.*)

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
E.3	Nov 3, Susan Brandt-Hawley	O-MBA22B4-5	LC ALT-1 Exh D p. D-349	Alternative site near Pier 80
E.3	Oct 13, Susan Brandt-Hawley	O-MBA14B2-1	LC ALT-1 Exh D p. D-349	Alternative site near Pier 80



## TOPIC F: AIR QUALITY

**F.1 Appeal Issue:** Appellant does not describe any specific issues and only lists the documents listed below as the grounds for appeal.

**Summary of Appeal Response F.1:** All comment letters and supporting documentation previously submitted to OCII have been reviewed and substantive comments have been responded to in writing in the Response to Comments document or in Exhibit D of this appeal response. Refer to appeal responses F.2 to F.12 for responses to specific issues.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.1	July 26, Lippe	O-MBA8L2-1 to O-MBA8L2-13	RTC Section 13.13, p. 13.13-1 to 13.13-70	Various Air Quality Issues, see appeal issues below for specific issues
F.1	July 19, Gilbert	O-MBA8L2-14 to O-MBA8L2-25	RTC Section 13.13, p. 13.13-1 to 13.13-70	Various Air Quality Issues
F.1	July 20, SWAPE	O-MBA8L2-26 to O-MBA8L2-34	RTC Section 13.13, p. 13.13-1 to 13.13-70	Various Air Quality Issues
F.1	Nov 2, Lippe FSEIR <sup>a</sup>	O-MBA20L7-3	LC AQ-2 Exh. D, p. D-216	Construction mitigation measure
		O-MBA20L7-4	LC AQ-1 Exh. D, p. D-207	Emissions offset mitigation measure
		O-MBA20L7-5	LC AQ-8 Exh. D, p. D-249	Air quality impacts of project refinements and variant
F.1	October 30, Gilbert	O-MBA20L7-12 to O-MBA20L7-19	LC Section 10 Exh. D, p. D-203	Various Air Quality Issues
F.1	Nov 2, Farrow FSEIR	O-MBA20L7-10	LC AQ-3 Exh. D, p. D-233	Health risk assessment
F.1	Nov 2, SWAPE	O-MBA20L7-11	LC AQ-3 Exh. D, p. D-233	Health risk assessment
F.1	CAPCOA, 2009	O-MBA20L7 Not bracketed	No response required	Does not contain comments on the SEIR or proposed project
F.1	San Luis Obispo APCD, 2012	O-MBA20L7 Not bracketed	No response required	Does not contain comments on the SEIR or proposed project
F.1	Mission Bay Land Use Plan, Nov 2005	O-MBA20L7 Not bracketed	No response required	Does not contain comments on the SEIR or proposed project
F.1	OEHHA, 2015. Risk Assessment Guidelines	O-MBA20L7 Not bracketed	No response required	Does not contain comments on the SEIR or proposed project
F.1	OEHHA, 2009. Adoption of Revised Air Toxics Hot Spots Program	O-MBA20L7 Not bracketed	No response required	Does not contain comments on the SEIR or proposed project
F.1	OEHHA, 2012. Adoption of Revised Air Toxics Hot Spots Program	O-MBA20L7 Not bracketed	No response required	Does not contain comments on the SEIR or proposed project



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.1	OEHHA, 2012. Technical Support Document	O-MBA20L7 Not bracketed	No response required	Does not contain comments on the SEIR or proposed project

<sup>a</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

**F.2 Appeal Issue:** The City cannot use the SEIR's significance thresholds until it formally adopts them.

**Summary of Appeal Response F.2:** The CEQA Guidelines encourage lead agencies to develop and publish thresholds, but the Guidelines do not require the adoption of formal thresholds for individual projects.

**F.3 Appeal Issue:** Appellant questions significance thresholds used for construction and operational air quality impacts.

(a)(b) Air quality thresholds of significance for ozone precursors used in the SEIR are borrowed from another agency and not supported by substantial evidence. These thresholds are based on inapplicable New Source Rule values.

(c) The Draft SEIR's impact assessments for construction-related criteria pollutants and toxic air contaminant (TAC) emissions are invalid. The SEIR underestimates the project's construction-related emissions by incorrectly using a default hauling trip length of 20 miles provided by California Emissions Estimator Model (CalEEMod), rather than actual trip length, to determine the on-road hauling emissions that would occur during construction.

(d) The Draft SEIR's impact assessments for operational criteria pollutants and TAC emissions are invalid. The SEIR fails to include vehicle emissions from Warriors game traffic in its analysis of operational emissions. The impact assessment for operational ozone precursors emissions is also misleading because it omits from its quantitative tally of criteria pollutants the emissions the project will generate in San Francisco and the project area. In addition, to the extent that the significance thresholds are invalid, Mitigation Measure M-AQ-2b fails to reduce ozone precursor emissions to less-than-significant levels and does not consider the feasibility of more robust mitigation strategies.

**Summary of Appeal Response F.3:**

(a)(b) The air quality significance thresholds are supported by substantial evidence that is presented in the SEIR. Significance standards recommended by regulatory agencies, in this case the BAAQMD, are routinely used because their



use cannot be challenged as inappropriate or unsupported. The significance thresholds used to evaluate ozone precursor emissions were developed by the BAAQMD and are based on the federal New Source Review (NSR) requirements. It is the existing practice by most air districts that develop CEQA thresholds of significance to base those thresholds on the NSR emissions limits. The NSR emissions limits represent levels below which new sources of emissions are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Monitored ozone concentrations in the San Francisco Bay Area have declined 17 percent over the past 20 years, in large part due to the measures taken by BAAQMD in curtailing emissions from stationary sources. The NSR emissions limits therefore enable BAAQMD to capture a sufficient percentage of projects to effectively reduce ozone precursor emissions within the air basin, and can be appropriately applied to CEQA projects to ensure attainment of air quality standards. The BAAQMD's Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance provides substantial evidence to support these thresholds, which is summarized in the SEIR.

(c) The use of CalEEMod default values for the estimated haul trip length are appropriate for assessing construction criteria air pollutant and TAC emissions when the location of disposal sites are unknown. Use of the CalEEMod default values provides an appropriately conservative estimate of the project's emissions from haul trips because while some disposal sites may exceed the 20 mile trip length, much of the construction and demolition debris is anticipated to be accepted at the Recology recycling facility, approximately five miles from the project site.

(d) The SEIR's air quality analysis appropriately accounts for emissions from Warriors game traffic and assesses those impacts on both a regional level and a local, site-specific, level. In terms of regional air quality impacts, the SEIR analyzed the vehicle miles travelled (VMT) of season ticket holders and determined that VMT would remain unchanged. Thus, the net ozone precursors added to the air basin as a result of Warriors game traffic would be essentially the same as existing conditions. However, for purposes of localized air quality impacts (health risks) the SEIR includes Warriors game traffic as net new emissions to the local environmental setting.

The SEIR identifies Mitigation Measure M-AQ-2b (Emissions Offsets) to further reduce the project's air quality impact after considering all feasible measures to reduce the project's impact in the first place. The SEIR concludes that because Mitigation Measure M-AQ-2b requires actions by a third party or by an emission offset project yet to be identified, it cannot be stated with certainty that this mitigation measure would reduce impacts to less than significant, and the impact is therefore considered significant and unavoidable, even with mitigation.



However, if an emissions offset project is successfully implemented by the project sponsor and/or the BAAQMD, Mitigation Measure M-AQ-2b could sufficiently reduce ozone precursor emissions to less than significant levels.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.3	July 26, Lippe, pp. 4-9	O-MBA8L2-4	RTC AQ-1b RTC, p. 13.13-13	Use of BAAQMD Guidelines and significance thresholds for construction and operation
F.3	July 19, Gilbert, pp.3-6	O-MBA8L2-16	RTC AQ-1b RTC, p. 13.13-13	Use of BAAQMD Guidelines and significance thresholds for construction and operation
F.3	October 30, Gilbert, pp. 2-6	O-MBA20L7-12 to O-MBA20L7-13	LC AQ-4 Exh D, p. D-240 LC AQ-5 Exh D, p. D-243	Air quality significance thresholds Air quality traffic assumptions
F.3	July 26, Lippe, pp. 9-10	O-MBA8L2-6	RTC AQ-1a RTC, p. 13.13-4	Lead agency's use of BAAQMD thresholds
		O-MBA8L2-7	RTC AQ-6a RTC, p. 13.13-53	Mitigation of construction-related impacts
		O-MBA8L2-8	RTC AQ-3 RTC, p. 13.13-40	Construction Impacts, Methodology, and Assumptions
		O-MBA8L2-9	RTC AQ-6a, 6b, 6c RTC, p. 13.13-53	Mitigation Measure, Feasibility and Enforcement
		O-MBA8L2-10	RTC AQ-1b RTC, p. 13.13-13	Use of BAAQMD Guidelines and significance thresholds for construction and operation
F.3	July 19, Gilbert, pp.6-7	O-MBA8L2-17	RTC AQ-6d RTC, p. 13.13-56	Use of renewable diesel as construction mitigation measure
F.3	July 26, Lippe, p. 10	O-MBA8L2-8	RTC AQ-3 RTC, p. 13.13-40	Construction Impacts, Methodology, and Assumptions
		O-MBA8L2-9	RTC AQ-6a, 6b, 6c RTC, p. 13.13-53	Mitigation Measure, Feasibility and Enforcement
		O-MBA8L2-10	RTC AQ-1b RTC, p. 13.13-13	Use of BAAQMD Guidelines and significance thresholds for construction and operation
F.3	July 20, SWAPE, 2-6	O-MBA8L2-31	RTC AQ-3 RTC, p. 13.13-40	Construction Impacts, Methodology, and Assumptions
F.3	July 26, Lippe, p. 11	O-MBA8L2-11	RTC AQ-7 RTC, p. 13.13-65	Emissions Offset mitigation measure
F.3	July 19, Gilbert, p. 10	O-MBA8L2-19	RTC AQ-6c RTC, p. 13.13-55	Construction Mitigation—Compliance certification
		O-MBA8L2-20	RTC AQ-7 RTC, p. 13.13-65	Emissions Offset mitigation measure
		O-MBA8L2-21	RTC AQ-4a RTC, p. 13.13-44	Consideration of Vehicle Trips from GSW basketball events
F.3	October 30, Gilbert, pp. 6-10	O-MBA20L7-13	LC AQ-5 Exh D, p. D-243	Air quality traffic assumptions



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.3	July 26, Lippe, pp. 10-11	O-MBA8L2-10	RTC AQ-1b RTC, p. 13.13-13	Use of BAAQMD Guidelines and significance thresholds for construction and operation
F.3	July 26, Lippe, p. 12	O-MBA8L2-11	RTC AQ-7 RTC, p. 13.13-65	Emissions Offset mitigation measure

**F.4 Appeal Issue:** Mitigation Measure M-AQ-1 does not comply with CEQA requirements.

- (a) This measure would limit offroad equipment used during construction to machinery equipped with at a minimum, Tier 2 engines with verified diesel emission control strategies (VDECS), and at a maximum, Tier 4 or Tier 4 interim engines. However, the SEIR does not demonstrate the feasibility of this measure.
- (b) This measure includes a limit on idling time of two minutes and provides exceptions to this limit as provided in state law, but fails to describe what these exceptions are.
- (c) This measure is unenforceable and places inappropriate reliance on the project sponsor for interpretation and compliance determination.
- (d)(e) The response to comment AQ-6a (availability of Tier 2 and Tier 4 off-road vehicles) is inadequate. The response to comment AQ-6e is inadequate (ability to implement and enforce Mitigation Measure M-AQ-1).

**Summary of Appeal Response F.4:**

(a) Mitigation Measure M-AQ-1 is feasible. The City Planning staff have reviewed the California Air Resources (CARB) database used to determine fleet-wide compliance with the USEPA's off-road vehicle standards and determined that as of 2014, at least 59 percent of all off road equipment are rated USEPA Tier 2 or higher. Further, since 2008 Tier 3 or Tier 4 equipment is the only equipment available for purchase. Although a contractor may have lower Tiered equipment in its fleet, it is expected that the contractor would deploy equipment meeting the requirements of Mitigation Measure M-AQ-1 for use on the project site. If such equipment were not available in the contractor's fleet, the contractor could either obtain the equipment for temporary use from equipment rental companies or purchase new equipment meeting the requirement.

(b) Mitigation Measure M-AQ-1 allows for exceptions to the limits on idling times for certain vehicles as specified in the California Code of Regulations (CCR) Title 13, Division 3 § 2485 (for on-road vehicles) and § 2449(d)(2) (for off-road vehicles). The RTC document includes reference to specific instances where an exception would apply.



(c) The lead agency, OCII, has the authority and ability to monitor and enforce Mitigation Measure M-AQ-1, as specified in the Mitigation Monitoring and Reporting Program (MMRP) that was included as part of the conditions of project approvals.

(d)(e) Responses to Comments AQ-6a and AQ-6e are adequate. Response AQ-6a responds to comments regarding mitigation of construction-related impacts, including availability of Tier 2 and Tier 4 offroad equipment, described in part (a) of this appeal response F.4. Response AQ-6e responds to comments regarding implementation and enforceability of Mitigation Measure M-AQ-1, described in part (c) of this appeal response F.4.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.4	July 26, Lippe, p. 9	O-MBA8L2-6	RTC AQ-1a RTC, p. 13.13-4	Lead agency's use of BAAQMD thresholds
F.4	July 20, SWAPE, 6-8	O-MBA8L2-32	RTC AQ-6a RTC, p. 13.13-53	Mitigation of construction-related impacts
F.4	October 30, Gilbert, pp. 10-14	O-MBA20L7-14	LC AQ-2 Exh D, p. D-216	Construction mitigation measures
F.4	July 26, Lippe, p. 10	O-MBA8L2-8	RTC AQ-3 RTC, p. 13.13-40	Construction Impacts, Methodology, and Assumptions
		O-MBA8L2-9	RTC AQ-6a, 6b, 6c RTC, p. 13.13-53	Mitigation Measure, Feasibility and Enforcement
		O-MBA8L2-10	RTC AQ-1b RTC, p. 13.13-13	Use of BAAQMD Guidelines and significance thresholds for construction and operation
F.4	July 19, Gilbert pp. 7-10	O-MBA8L2-18	RTC AQ-6e RTC, p. 13.13-59	Implementation and Enforceability of Mitigation Measure M-AQ-1: Construction Emissions Minimization
		O-MBA8L2-19	RTC AQ-6c RTC, p. 13.13-55	Construction Mitigation—Compliance certification
		O-MBA8L2-20	RTC AQ-7 RTC, p. 13.13-65	Emissions Offset mitigation measure
F.4	October 30, Gilbert, pp. 14-16	O-MBA20L7-15	LC AQ-6 Exh D, p. D-245	Air quality specialist
F.4	Nov 2, Lippe FSEIR, pp. 2-3 <sup>a</sup>	O-MBA20L7-3	LC AQ-2 Exh. D, p. D-216	Construction mitigation measure
F.4	October 30, Gilbert, p. 11	O-MBA20L7-14	LC AQ-2 Exh D, p. D-216	Construction mitigation measures
F.4	Nov 2, Lippe FSEIR, pp. 3-5 <sup>a</sup>	O-MBA20L7-3	LC AQ-2 Exh. D, p. D-216	Construction mitigation measure

<sup>a</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.



**F.5 Appeal Issue:** Mitigation Measure M-AQ-2b does not comply with CEQA requirements and responses to these concerns are inadequate.

- (a) The per ton charge for emission offsets is too low to achieve complete offset of the project's emissions.
- (b) Mobile-based emission offsets sources are too short-lived to completely offset project-generated emissions.

**Summary of Appeal Response F.5:**

(a) The \$18,030 per weighted ton offset fee specified in Mitigation Measure M-AQ-2b is based on the California Air Resources Board (CARB) cost-effectiveness criteria for emissions offset projects under the state's Carl Moyer Incentive Program. The offset fee amount mirrors the Sacramento Metropolitan Air Quality Management District's offsite construction mitigation fee program, which is also \$18,030 per weighted ton, and is nearly double the San Joaquin Valley Air Pollution Control District Indirect Source Review program fee of \$9,350 per ton. The \$18,030 per weighted ton offset fee meets the *rough proportionality* standard required under CEQA. Mitigation Measure M-AQ-2b has been modified to allow payment of a higher offset fee if required.

(b) Emissions offset programs replace existing high-polluting engines with cleaner more efficient engines and the incremental benefit of these replacements are realized for successive years into the future until the original engine would have reached the end of its useful life or its operation is prohibited by regulation.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.5	July 26, Lippe, pp. 11-12	O-MBA8L2-11	RTC AQ-7 RTC, p. 13.13-65	Emissions Offset mitigation measure
F.5	Oct 30, Gilbert, pp. 17 -19	O-MBA20L7-17	LC AQ-1 Exh D, p. D-207	Emissions Offset mitigation measure
F.5	July 26, Lippe, pp. 12-13	O-MBA8L2-11	RTC AQ-7 RTC, p. 13.13-65	Emissions Offset mitigation measure
F.5	July 19, Gilbert 14-15	O-MBA8L2-24	RTC AQ-7 RTC, p. 13.13-65	Emissions Offset mitigation measure
F.5	Oct 30, Gilbert pp. 19-21	O-MBA20L7-18	LC AQ-1 Exh D, p. D-207	Emissions Offset mitigation measure

**F.6 Appeal Issue:** The SEIR's cancer and health risk assessment for toxic air contaminants is invalid.

- (a) The City's reliance on EPA's judgment of "acceptable" cancer risk is legally flawed. The City relies on a misrepresentation of actual EPA policy. And the Draft SEIR errs by using EPA's judgment of acceptable cancer risk to determine impact significance.



(b) The SEIR does not assess the project's individual excess cancer risk to the BAAQMD's 10 in one million significance threshold.

(c) The Draft SEIR does not use BAAQMD's cumulative PM<sub>2.5</sub> significance threshold of 0.8  $\mu\text{g}/\text{m}^3$  [sic].

(d) The Final SEIR does not provide a project-specific health risk assessment for the project, only a cumulative impact analysis. Project-caused excess TAC cancers are more than four times the threshold used by most California air districts to determine the significance of an individual project's impacts.

(e) The SEIR's assessment of cumulative TACs does not include all sources of related impacts, including foreseeable sources of TAC emissions in its cumulative impact analysis and foreseeable future construction and operation of developments in the project vicinity.

(f) Project health risks are underestimated using older standards. The Final SEIR does not incorporate updated child breathing rates set forth by OEHHA in 2012.

#### **Summary of Appeal Response F.6:**

(a)(b) The SEIR's cancer risk threshold was developed in close coordination with BAAQMD staff and is based not solely on EPA regulations for what constitutes an "acceptable risk" level, but also on regional modeling demonstrating that the threshold of 100 per one million population reflects the air quality in the most pristine portions of the Bay Area (e.g., Point Reyes).

(c) The SEIR does not utilize the BAAQMD's incremental cumulative PM<sub>2.5</sub> contribution threshold of 0.8  $\mu\text{g}/\text{m}^3$ , but rather applies a cumulative analysis that considers existing sources within the project area. The SEIR assesses the PM<sub>2.5</sub> exposure impact relative to a conservative health-based exposure standard based on the ambient air quality standards promulgated by the California Air Resources Board and the U.S. Environmental Protection Agency. This method of assessing cumulative impact incorporates existing ambient PM<sub>2.5</sub> levels, which range from 8.6  $\mu\text{g}/\text{m}^3$  to 9.0  $\mu\text{g}/\text{m}^3$  at the project site and thus addresses the impact relative to health based standards rather than the BAAQMD incremental standard which is not based on a direct link to human health exposure. The SEIR provides substantial evidence to support the PM<sub>2.5</sub> threshold of 10  $\mu\text{g}/\text{m}^3$ , which is based on low-end (i.e., most health protective) USEPA recommendations.

(d) The SEIR provides a project-specific health risk assessment and determines first, whether the health risk to a sensitive receptor would be significant and if so, then whether the project's contribution to that health risk is considerable. Since a person's environmental risk of contracting cancer is based on that



person's cumulative exposure, projects that would result in a cumulative cancer risk exceeding this level are assessed further to determine whether the project's contribution is cumulatively considerable. This additional analysis utilizes the BAAQMD's 10 per one million population threshold, contrary to the Appellant's claim.

(e) The SEIR's health risk analysis accounts for the construction and operation of cumulative projects and concludes that due to the distance of cumulative projects from the project site, construction activities from those projects would not substantially contribute to localized health effects.

(f) In March 2015, the OEHHA adopted revised guidance on recommended breathing rates for health risk analyses. The BAAQMD has not yet implemented the OEHHA guidance into its permitting process and the analysis in the EIR utilizes the methodology currently embraced by the BAAQMD. Air pollution districts may deviate from OEHHA guidance, as the San Joaquin Air Pollution Control District has done.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.6	July 26, Lippe, pp. 13-18	O-MBA8L2-12	RTC AQ-1c RTC, p. 13.13-24	Health Risk Significance Thresholds
F.6	July 26, Lippe, pp. 18-19	O-MBA8L2-13	RTC AQ-1d RTC, p. 13.13-29	PM2.5 Significance Thresholds
F.6	July 20, SWAPE, pp. 10-11	O-MBA8L2-34	RTC AQ-1c, 1d RTC, p. 13.13-24	Health Risk Significance Thresholds, PM2.5 Significance Thresholds
F.6	Nov 2, Farrow FSEIR, pp. 1-3	O-MBA20L7-10	LC AQ-3 Exh D, p. D-233	Health risk assessment
F.6	July 20, SWAPE, pp. 8-10	O-MBA8L2-33	RTC AQ-1c RTC, p. 13.13-24	Health Risk Significance Thresholds
F.6	Nov 2, SWAPE, pp. 2-4	O-MBA20L7-11	LC AQ-3 Exh D, p. D-233	Health risk assessment
F.6	Nov 2, Farrow FSEIR, p. 3	O-MBA20L7-10	LC AQ-3 Exh D, p. D-233	Health risk assessment
F.6	Nov 2, SWAPE, pp. 4-12	O-MBA20L7-11	LC AQ-3 Exh D, p. D-233	Health risk assessment
F.6	July 19, Gilbert, pp. 13-14	O-MBA8L2-22	RTC AQ-5 RTC, p. 13.13-50	Health Risk Methodology and Assumptions
F.6	Nov 2, Farrow FSEIR, pp. 4-5	O-MBA20L7-10	LC AQ-3 Exh D, p. D-233	Health risk assessment
F.6	Nov 2, SWAPE, pp. 12-15	O-MBA20L7-11	LC AQ-3 Exh D, p. D-233	Health risk assessment



**F.7 Appeal Issue:** The SEIR's impact assessment for construction-related dust pollution is based on legal errors and is not supported by substantial evidence.

**Summary of Appeal Response F.7:** The project is required to comply with the San Francisco Dust Control Ordinance, which has a mandate for “no visible dust.” The project sponsor would be required to prepare a dust control plan for approval by the San Francisco Department of Public Health. The RTC document includes evidence that application of best management practices at construction sites significantly control fugitive dust emissions and individual measures have been shown to reduce fugitive dust by anywhere between 30 to 90 percent.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.7	July 26, Lippe, pp. 1-3	O-MBA8L2-2	RTC AQ-2 RTC, p. 13.13-32	Dust Control Plan

**F.8 Appeal Issue:** Construction and operational mitigation options have not been thoroughly reviewed for diesel alternatives.

**Summary of Appeal Response F.8:** Mitigation Measures M-AQ-1 and M-AQ-2a were amended in the RTC document to require the use of renewable diesel (a diesel alternative) for construction and operational emissions if it can be demonstrated that this fuel is compatible with the equipment to be used and the air quality emissions from the transport of renewable diesel to the project site will not offset the emissions reduction achieved through its use.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.8	July 19, Gilbert, pp. 6-7	O-MBA8L2-17	RTC AQ-6d RTC, p. 13.13-57	Use of renewable diesel as construction mitigation
F.8	Oct 30, Gilbert, p. 16-17	O-MBA20L7-16	LC AQ-7 Exh D, p. D-247	Renewable diesel as mitigation

**F.9 Appeal Issue:** Operational mitigation measure for electrical outlets is vague and unenforceable.

**Summary of Appeal Response F.9:** Mitigation Measure M-AQ-2a requires the project sponsor to provide outlets that can be used to power landscape equipment, and is included in the Mitigation Monitoring and Reporting Program (MMRP). This measure would be enforced by review and approval of the electrical plans to ensure a sufficient number of electrical power outlets are located on the outside of buildings and in locations where landscape maintenance equipment is anticipated to be required.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.9	July 19, Gilbert, p. 10	O-MBA8L2-20	RTC AQ-6f RTC, p. 13.13-61	Feasibility of Mitigation Measure M-AQ-2a: Reduce Operational Emissions

**F.10 Appeal Issue:** Construction emissions from wastewater improvements have not been adequately reviewed in the SEIR.

**Summary of Appeal Response F.10:** Improvements to the Mariposa Pump Station are not proposed as part of this project or required for the project. The Mariposa Pump Station is a separate project that is proposed by the SFPUC and would be subject to its own future CEQA review, which would identify the air quality impacts associated with construction of the pump station at that time. To date, specific plans and design for the pump station improvements have not been finalized and the CEQA review has not been completed.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.10	July 24, Lippe, pp. 1-4	O-MBA11L5-2	RTC UTIL-3 RTC, p. 13.17-7	Wastewater system, description and environmental effects of new facilities
		O-MBA11L5-3	RTC UTIL-6 RTC, p. 13.17-17  RTC HYD-3 RTC, p. 13.21-14	Wastewater System – Description of interim improvements  Water Quality, Interim Wastewater system improvements
F.10	July 19, Gilbert, pp. 2-3	O-MBA8L2-15	RTC AQ-3 RTC, pp. 13.13-40; and RTC UTIL-3 RTC, 13.17-7	Construction Impacts, Methodology, and Assumptions; and  Wastewater system, description and environmental effects of new facilities

**F.11 Appeal Issue:** Changes to the project since publication of the Draft SEIR require recirculation of a revised Draft SEIR due to new and more severe air quality significant impacts.

**Summary of Appeal Response F.11:** Changes to the project description since publication of the Draft SEIR were evaluated in the RTC document and would not result in a new significant air quality impact or result in substantially more severe significant impacts. Thus, recirculation is not required. Emissions associated with operation of dewatering generators, operation of a pug mill to treat soil on-site and removal of previously assumed rapid impact compaction activities would increase NOx emissions from 144 pounds per day to



151 pounds per day. This increase in temporary construction emissions would not result in a new significant impact or a substantial increase in the severity of the construction air quality impacts disclosed in the Draft SEIR. Emissions associated with the construction of the project variant combined with the construction changes listed above, would increase NOx emissions from 144 pounds per day to 157 pounds per day. This increase in temporary construction emissions would not result in a new significant impact or a substantial increase in the severity of the construction air quality impacts disclosed in the Draft SEIR because the Draft SEIR identified that the project would increase NOx emissions due to construction activities and the incremental increase in the amount of temporary construction emissions is not substantial. Further, Mitigation Measure M-AQ-2b requires offset of all emissions in excess of the significance thresholds, so with mitigation, the slight increase in temporary construction emissions would be offset, resulting in the same level of emissions after mitigation, as already disclosed in the Draft SEIR.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.11	Nov 2, Lippe FSEIR, pp. 6-7 <sup>a</sup>	O-MBA20L7-5	LC AQ-8 Exh. D, p. D-249	Air quality impacts of project refinements and variant

<sup>a</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

**F.12 Appeal Issue:** New information regarding Mitigation Measure M-AQ-2b since publication of the Draft SEIR requires recirculation of a revised Draft SEIR. The appellant asserts that the BAAQMD would not participate in Mitigation Measure M-AQ-2b offset emissions plan. The City cannot find that Impact 4 is less than significant with mitigation because the City and project sponsor refuse to agree to BAAQMD's offset fees in Mitigation Measure M-AQ-2b. There is no evidence that Option 2 offset within Mitigation Measure M-AQ-2b is feasible. The City cannot find that all feasible mitigation measures have been adopted that would reduce impacts of Impact AQ-1, Impact AQ-2, and Impact C-AQ-1.

**Summary of Appeal Response F.12:** The BAAQMD's November 2, 2015, letter does not establish that the California Air Resources Board cost-effectiveness criteria are inappropriate for determining the offset costs under Mitigation Measure M-AQ-2b. The BAAQMD does have an emissions offset mitigation or Indirect Source Review program. The \$18,030 per weighted ton offset fee specified in Mitigation Measure M-AQ-2b is based on the California Air Resources Board (CARB) cost-effectiveness criteria for emissions offset projects under the state's Carl Moyer Incentive Program. The offset fee amount mirrors the Sacramento Metropolitan Air Quality Management District's offsite



construction mitigation fee program, which is also \$18,030 per weighted ton, and is nearly double the San Joaquin Valley Air Pollution Control District Indirect Source Review program fee of \$9,350 per ton. Mitigation Measure M-AQ-2b has been modified to allow payment of a higher offset fee if required.

Mitigation Measure M-AQ-2b allows the project sponsor to directly implement an emissions offset project as an alternative to entering into an agreement with the BAAQMD. OCII believes this to be a feasible approach because the City successfully implemented an emissions offset project for the 34th America's Cup by installing a shoreside power facility at the Port of San Francisco's Pier 70 dry dock, which has resulted in long-term reduction in criteria air pollutant emissions in the San Francisco Bay Area Air Basin.

Impact AQ-4 relates to the potential for the proposed project to conflict with, or obstruct implementation of, the *2010 Clean Air Plan*. The Final SEIR determined that this impact would be less than significant with mitigation because the project (1) includes mitigation measures that promote attainment of air quality standards and protection of public health in the Bay Area, design measures to minimize greenhouse gases emissions; (2) includes applicable control measures from the air quality plan, including transportation control measures and energy and climate control measures; and (3) would not disrupt or hinder implementation of control measures identified in the Clean Air Plan. The proposed project includes feasible mitigation measures that would contribute towards achieving these goals, including Mitigation Measures M-AQ-1 (Construction Emissions Minimization), M-AQ-2a (Reduce Operational Emissions), and M-AQ-2b (Emissions Offsets). Therefore, this impact is appropriately determined to be less than significant with mitigation.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
F.12	Nov 2, Lippe FSEIR, pp. 5-6 <sup>a</sup>	O-MBA20L7-4	LC AQ-1 Exh. D, p. D-207	Emissions offset mitigation measure
F.12	Oct 30, Gilbert, pp. 17-18	O-MBA20L7-17	LC AQ-1 Exh D, p. D-207	Emissions offset mitigation measure
F.12	Nov 3, oral testimony of Thomas N. Lippe at OCII hearing	PH2-Lippe-4	LC AQ-1 Exh D, p. D-207	Emissions offset mitigation measure

<sup>a</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.



## TOPIC G: TRANSPORTATION

**G.1 Appeal Issue:** Appellant does not describe any specific issues and only lists the documents listed below as the grounds for appeal.

**Summary of Appeal Response G.1:** It is acknowledged that appellants have already submitted materials that raise the same transportation-related issues, all of which have previously been adequately addressed in the Responses to Comment document. Please refer to the appeal responses G.2 to G.22 for specific responses to specific issues.

Appeal Code	Previous Comment/Letter Cited	Comment Code	Response Code	Topic
G.1	July 27, Lippe	O-MBA10L4-1 to O-MBA10L4-15	RTC Section 13.11, pp. 13.11-1 to 13.11-220	Various Transportation Issues, see appeal issues below for specific issues
G.1	July 23, Smith <sup>a</sup>	O-MBA10L4-16 to O-MBA10L4-38	RTC Section 13.11, pp. 13.11-1 to 13.11-220	Various Transportation Issues, see appeal issues below for specific issues
G.1	July 21, Wymer	O-MBA10L4-39a O-MBA10L4-39b	RTC TR-2b, 2d RTC p. 13.11-25, 13.11-41	Methodology, Analysis locations, Trip Generation
G.1	Nov 2, Smith FSEIR	O-MBA20L7-20 to O-MBA20L7-31	RTC various TR topics	Various Transportation Issues, see appeal issues below for specific issues
G.1	Nov 2, Wymer FSEIR	O-MBA20L7-32	LC TR-2 Exh D p. D-148	Methodology, Analysis Locations
G.1	Nov 10, Smith FSEIR Access	O-MBA27S9-7	LC TR-13 Exh D p. D-185	Emergency Vehicle Access
G.1	Nov 10, Smith FSEIR Port	O-MBA27S9-8	LC TR-17 Exh D p. D-193	Off-site Parking Mitigation
G.1	Nov 13, Smith FSEIR King St	O-MBA29L12-1	LC TR-14 Exh D p. D-189	Construction-related Transportation Impacts

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, this Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).

**G.2 Appeal Issue:** The SEIR fails to assess the project's traffic impacts on the entire affected environment.

**Summary of Appeal Response G.2:** The SEIR's transportation analysis appropriately addresses intersections and freeway ramps in the project vicinity and along approach/departure routes most likely to be affected. The approach suggested by the appellants includes locations considerably far removed from the project site and less likely to be used by those traveling there, where the magnitude of traffic and impacts, if any, are likely to be more dispersed.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.2	July 27, Lippe, p. 1	O-MBA10L4-2	RTC-TR-2b RTC p. 13.11-25	Methodology, Analysis Locations
G.2	July 23, Smith, p. 8 <sup>a</sup>	O-MBA10L4-20	RTC-TR-2b RTC p. 13.11-25	Methodology, Analysis Locations
G.2	July 21, Wymer, pp. 1-12	O-MBA10L4-39a	RTC TR-2b RTC p. 13.11-25	Methodology, Analysis Locations
G.2	Nov 2, Smith FSEIR pp. 5-8	O-MBA20L7-21	LC TR-1 Exh D p. D-141	Methodology, Analysis Locations
G.2	Nov 2, Wymer FSEIR	O-MBA20L7-32	LC TR-1 Exh D p. D-141	Methodology, Analysis Locations

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).

**G.3 Appeal Issue:** The SEIR fails to disclose the severity of the project's impacts on intersections and freeway ramps which the project will cause to deteriorate to Level of Service (LOS) F.

**Summary of Appeal Response G.3:** The SEIR fully discloses all significant traffic impacts. CEQA does not require identification of degrees of “worseness” beyond identification of significant impacts, and LOS methodologies do not accurately calculate delay beyond LOS F conditions.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.3	July 27, Lippe, p. 3	O-MBA10L4-3	RTC TR-2f RTC p. 13.11-48	Methodology, Traffic LOS
G.3	July 23, Smith, p. 11 <sup>a</sup>	O-MBA10L4-24	RTC TR-2f RTC p. 13.11-48	Methodology, Traffic LOS
G.3	July 21, Wymer, pp. 12-13	O-MBA10L4-39B	RTC TR-2d RTC p. 13.11-41	Methodology, Trip Generation
G.3	Nov 2, Smith FSEIR pp. 16-18	O-MBA20L7-24	LC TR-6 Exh D p. D-162	Methodology, Traffic LOS

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).

**G.4 Appeal Issue:** The SEIR fails to identify the significance and severity of the project's impacts on intersections where the project will use parking control officers (PCOs).

**Summary of Appeal Response G.4:** The SEIR and RTC document details why human interventions by PCOs provide more efficient control for interactions between autos, transit, pedestrians and bicyclists. These enhancements cannot be accurately measured by LOS methodologies that are based on mechanical signal controls that operate with pre-programmed sequential patterns over the period of analysis.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.4	July 27, Lippe, p. 4	O-MBA10L4-4	RTC TR-2f RTC p. 13.11-48	Methodology, Traffic LOS
G.4	July 23, Smith, p. 11 <sup>a</sup>	O-MBA10L4-23	RTC TR-2f RTC p. 13.11-48	Methodology, Traffic LOS
G.4	Nov 2, Smith FSEIR pp. 16-18	O-MBA20L7-24	LC TR-6 Exh D p. D-162	Methodology, Traffic LOS

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).

**G.5 Appeal Issue:** The SEIR's analysis of the project's construction-related traffic congestion and delay impacts is legally flawed because it is based on invalid criteria, it fails to assess the project's cumulative construction impacts, and it defers development of mitigation measures.

**Summary of Appeal Response G.5:** Construction-related impacts are identified by provision of details about the duration and intensity of project construction activities, and an assessment of potential impacts on the transportation network. Cumulative construction impacts are adequately addressed by disclosure of details about other projects likely to be under construction at the same time as the project. The construction improvement measure, Improvement Measure I-TR-1: Construction Management Plan and Public Updates, is not deferred mitigation. First, it is an improvement measure that reduces an already less than significant impact and not mitigation. Second, it is specific and includes provision for construction traffic management, a construction worker parking plan, project construction updates for adjacent businesses and residents, and carpool, transit, and non-motorized modes of access for construction workers. Potential impacts of construction activities are addressed by established construction requirements utilized to manage construction projects in San Francisco.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.5	July 27, Lippe, pp. 5-7	O-MBA10L4-5	RTC TR-10 RTC p. 13.11-155	Construction-related Trans Impacts
		O-MBA10L4-6	RTC TR-10 RTC p. 13.11-155	Construction-related Trans Impacts
G.5	July 23, Smith, p. 15 <sup>a</sup>	O-MBA10L4-29	RTC TR-10 RTC p. 13.11-155	Construction-related Transportation Impacts
G.5	Nov 2, Smith FSEIR, p. 22	O-MBA20L7-30	LC TR-14 Exh D p. D-189	Construction-related Transportation Impacts

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).



**G.6 Appeal Issue:**

- (a) The SEIR understates traffic and transit volumes in the p.m. peak period by using time of arrival at the event center as a proxy measurement for time of travel.
- (b) The Draft SEIR only analyzes impacts of weeknight basketball games that start at 7:30 PM, not at other start times closer to the p.m. peak.

**Summary of Appeal Response G.6:**

(a) Time of travel for the event center events has been accurately identified through appropriate use of data for other comparable sports facilities, such as Oracle Arena in Oakland and other facilities in Houston, Phoenix, Sacramento, and New York. For basketball games in particular, the SEIR's transportation analysis assumed that twice as much travel would occur during the 5 p.m. to 6 p.m. peak hour compared to the average of arrivals obtained from actual data for the existing Barclays Center in Brooklyn, New York, which is located in a similar urban setting.

(b) Normal starting times for weekday basketball games is 7:30 p.m. Contrary to the appellants assertions that nationally televised games are rescheduled to start at 6:00 p.m., nationally televised weekday games typically feature an early game and a late game that does not deviate from the normal 7:30 p.m. start times, aside from exceptional circumstances such as playoff games.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.6	July 27, Lippe, p. 7	O-MBA10L4-7	RTC TR-2d RTC p. 13.11-41	Methodology, Trip Generation
G.6	July 23, Smith, p. 1 <sup>a</sup>	O-MBA10L4-16	RTC TR-2d RTC p. 13.11-41	Methodology, Trip Generation
G.6	July 21, Wymer, pp. 12-13	O-MBA10L4-39B	RTC TR-2d RTC p. 13.11-41	Methodology, Trip Generation
G.6	Nov 2, Smith FSEIR pp. 13-16	O-MBA20L7-23	LC TR-4 Exh D p. D-158	Methodology, Trip Generation
G.6	July 23, Smith, p. 5 <sup>a</sup>	O-MBA10L4-17	RTC TR-2a RTC p. 13.11-8	Methodology, Analysis Scenarios
G.6	July 21, Wymer, pp. 12-13	O-MBA10L4-39B	RTC TR-2d RTC p. 13.11-41	Methodology, Trip Generation
G.6	Nov 2, Smith FSEIR pp. 3-5	O-MBA20L7-20	LC TR-1 Exh D p. D-141	Methodology, Analysis Scenarios

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).



**G.7 Appeal Issue:**

- (a) The 5 percent threshold of significance for impacts at intersections and freeway ramps operating at LOS E or F violates CEQA.
- (b) The year 2040 baseline for assessing the significance of the project's cumulative impacts violates CEQA and the SEIR's distant time frame and development assumptions masks significance of project's nearer term cumulative impacts.
- (c) The SEIR's use of projection based approach to the project's cumulative impacts is misleading.
- (d) The SEIR's cumulative analysis fails to consider and analyze the project in the context of the City's proposal to remove the northern portion of I-280 as far south as the Mariposa Street exchange.

**Summary of Appeal Response G.7:**

- (a) CEQA does not decree any specific significance threshold standard for intersections and freeway ramps. The five percent contribution standard used in this SEIR is reasonable as it accounts for daily variations in traffic and is consistent with long-standing practices for environmental documents in San Francisco.
- (b) Assessment of cumulative impacts for year 2040, consistent with the current planning horizon year of regional population and employment forecasts prepared by regional planning agencies such as ABAG and MTC, is an appropriate timeframe that conforms to longstanding practices in San Francisco for major projects. This approach provides a more credible basis for assessing transportation impacts because cumulative horizon year forecasts (currently year 2040) are regularly reviewed and refined by SFCTA and the Planning Department and therefore more accurately reflect sustained development patterns and the effects of variable economic conditions than do near-term forecasts.
- (c) CEQA Guidelines Section 15130(b) explicitly authorizes use of either a projection-based or list-based approach for cumulative impacts. Use of a projection-based approach more appropriately reflects the vagaries of broader business cycles and the evolving dynamics of changes affecting cumulative conditions in San Francisco.
- (d) The concept of removing a portion of I-280 north of Mariposa or 16th Streets, included in the San Francisco Planning Department's Railyard Alternatives and I-280 Boulevard Feasibility Study, is speculative at this time, and any assessment of transportation impacts would rely upon conjecture. This concept is not a sufficiently defined project to undertake a credible analysis reflective of the unknown complexity of associated circulation changes. This ongoing planning study is described in the SEIR.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.7	July 27, Lippe, p. 11	O-MBA10L4-8	RTC TR-2i RTC p. 13.11-70	Methodology, Significance Thresholds
G.7	July 27, Lippe, p. 12	O-MBA10L4-9	RTC TR-2h RTC p. 13.11-65	Methodology, Cumulative
G.7	July 23, Smith, pp. 25-26 <sup>a</sup>	O-MBA10L4-36	RTC TR-2h RTC p. 13.11-65	Methodology, Cumulative
G.7	Nov 2, Smith FSEIR pp. 20-22	O-MBA20L7-26	LC TR-8 Exh D p. D-169	Methodology, Cumulative
G.7	July 27, Lippe, p. 13	O-MBA10L4-10	RTC TR-2h RTC p. 13.11-65	Methodology, Cumulative
		O-MBA10L4-11	RTC TR-2h RTC p. 13.11-65	Methodology, Cumulative
		O-MBA10L4-12	RTC TR-2h RTC p. 13.11-65	Methodology, Cumulative
G.7	July 23, Smith, p. 13 <sup>a</sup>	O-MBA20L7-26	RTC TR-2h RTC p. 13.11-65	

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).

**G.8 Appeal Issue:** The SEIR's use of transit screenline and route capacities is misleading and unsupported. The use of a project specific threshold of significant impact of 100 percent of screenline capacity rather than the normal 85 percent of screenline capacity exacerbates overcrowding impacts on the regular user community.

**Summary of Appeal Response G.8:** Transit screenline and route capacities disclose the extent of crowding and identify needs for additional service. This methodology was appropriately used to identify supplemental transit services, is a reasonable basis for determining transit impacts, and is neither legally flawed nor misleading nor unsupported. Use of a 100 percent capacity utilization for the T Third light rail line, the 22 Fillmore bus route, and the Muni Special Event Transit Shuttles routes for a maximum attendance event is consistent with typical design standards for transportation facilities that address normal peaks rather than peak of the peak conditions. The SEIR uses Muni's 85 percent capacity standard for the downtown screenline analysis and as the basis to evaluate all non-event scenarios.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.8	July 27, Lippe, p.14	O-MBA10L4-13a	RTC TR-2g RTC p. 13.11-59	Methodology, Transit Capacity Utilization
		O-MBA10L4-13b	RTC TR-2i RTC p. 13.11-70	Methodology, Significance Thresholds



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.8	July 23, Smith, pp.5-8 <sup>a</sup>	O-MBA10L4-18	RTC TR-2g RTC p. 13.11-59	Methodology, Transit Capacity Utilization
		O-MBA10L4-19	RTC TR-5b RTC p. 13.11-124	Transit Impacts, BART
G.8	Nov 2, Smith FSEIR pp. 18-20	O-MBA20L7-25	LC TR-7 Exh D p. D-165	Methodology, Transit Capacity Utilization

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).

**G.9 Appeal Issue:** The SEIR defers the development of mitigation measures.

**Summary of Appeal Response G.9:** The appellants conflate mitigation measures that fully mitigate identified significant impacts, mitigation measures that necessarily reflect adaptive management to most effectively address actual conditions as they occur, and mitigation measures whose implementation is identified as uncertain because actions would need to be independently undertaken by other agencies and entities outside the City's or the project sponsor's control. Realistic presentation of mitigation measures with different characteristics does not constitute unlawful deferral.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.9	July 27, Lippe, p.16	O-MBA10L4-14	RTC TR-12d RTC p. 13.11-199	Implementation of Mit Measures
G.9	July 23, Smith, pp. 17-25 <sup>a</sup>	O-MBA10L4-31	RTC TR-12a RTC p. 13.11-171	Traffic Mitigation Measures
		O-MBA10L4-32	RTC TR-11 RTC p. 13.11-163	Improvement Measures
		O-MBA10L4-33	RTC TR-12a RTC p. 13.11-171	Traffic Mitigation Measures
		O-MBA10L4-34	RTC TR-12c RTC p. 13.11-196	Mission Bay FSEIR Mitigation Measures
		O-MBA10L4-35	RTC TR-12b RTC p. 13.11-193	Transit Mitigation Measures

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).

**G.10 Appeal Issue:** Mitigation measures listed as follows are vague and unresponsive to the impact addressed: Improvement Measure I-TR-1, Mitigation Measure M-TR-2a, Mitigation Measure M-TR-2b, Mitigation Measure M-TR-5a, and Mitigation Measure M-TR-5b.



**Summary of Appeal Response G.10:** Improvement Measure I-TR-1: Construction Management Plan and Public Updates is not presented as a mitigation measure, but rather as an improvement measure, and sets forth established procedures to manage construction impacts. Mitigation Measure M-TR-2a: Additional PCOs during Events sufficiently details how PCOs would be most effectively deployed. Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts specifies a variety of adaptive TDM strategies to reduce traffic congestion in the project vicinity by providing drivers on information on traffic conditions and alternative routes, providing information on on-street and off-street parking conditions, discouraging use of on-street parking through the Residential Permit Parking program, encouraging non-auto modes through parking pricing, and enhancing regional transit access to the area. Mitigation Measures M-TR-5a and M-TR-5b identify specific additional Caltrain and North Bay ferry or bus services needed and sought to mitigate impacts while acknowledging that implementation is uncertain due to reliance on actions by other agencies. None of these measures are vague or insubstantive; each one is responsive to the identified impacts, and Mitigation Measures M-TR-2a: Additional PCOs during Events, M-TR-2b: Additional Strategies to Reduce Transportation Impacts, M-TR-5a: Additional Caltrain Service, and M-TR-5b: Additional North Bay Ferry and/or Bus Service do qualify as lawful and effective mitigation measures, while Improvement Measure I-TR-1: Construction Management Plan and Public Updates is an improvement measure that is not required to reduce significant impacts, but is further not vague as it requires preparation of a construction truck traffic management, a construction worker parking plan, project construction updates for adjacent businesses and residents, and carpool, transit, and non-motorized modes of access for construction workers.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.10	July 23, Smith, pp. 17-25 <sup>a</sup>	O-MBA10L4-31	RTC TR-12a RTC p. 13.11-171	Traffic Mitigation Measures
		O-MBA10L4-32	RTC TR-11 RTC p. 13.11-163	Improvement Measures
		O-MBA10L4-33	RTC TR-12a RTC p. 13.11-171	Traffic Mitigation Measures
		O-MBA10L4-34	RTC TR-12c RTC p. 13.11-196	Mission Bay FSEIR Mitigation Measures
		O-MBA10L4-35	RTC TR-12b RTC p. 13.11-193	Transit Mitigation Measures

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).



**G.11 Appeal Issue:** The SEIR characterizes mitigation measures for the project's transportation impacts as elements of the project, thereby failing to analyze and disclose the project's potentially significant impacts separate from the analysis of the feasibility and effectiveness of proposed mitigation measures.

**Summary of Appeal Response G.11:** There is nothing impermissible about incorporating transportation components that are within the sponsor's or the City's control into the definition of a project in order to preemptively reduce or avoid impacts. The project as thus defined cannot be built without implementation of the incorporated transportation components. Appellants appear to be demanding an unnecessary theoretical exercise to identify hypothetical impacts that would not occur based on how the project has been defined and would be implemented. Additional mitigation measures beyond transportation components incorporated into the project definition have also been appropriately identified, consistent with CEQA requirements.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.11	Nov 3, Soluri Meserve to SFMTA, pp. 1-3	O-MBA23S7-1	LC PD-1 Exh D p. D-107	Project description assumptions
G.11	July 26, Smith at FSEIR, Vol 6 pp. Com-135-139	O-MBA10L4-31	RTC TR-12a RTC p. 13.11-171	Traffic Mitigation Measures
		O-MBA10L4-32	RTC TR-11 RTC p. 13.11-163	Improvement measures
		O-MBA10L4-33	RTC TR-12a RTC p. 13.11-171	Traffic Mitigation Measures
		O-MBA10L4-34	RTC TR-12b, 12c RTC p. 13.11-193, 13.11-196	Transit and Mission Bay FSEIR Mitigation Measures
		O-MBA10L4-35	RTC TR-12b RTC p. 13.11-193	Transit Mitigation Measures
G.11	July 27, Lippe at FSEIR, p. Com-126	O-MBA10L4-15	RTC TR-2a RTC p. 13.11-8	Methodology, Analysis Scenarios

**G.12 Appeal Issue:** By characterizing mitigation measures for the project's transportation impacts as elements or components of the project, the SEIR fails to set forth enforceable mitigation.

**Summary of Appeal Response G.12:** Transportation components incorporated into the project definition would be enforceable by the City because project implementation is dependent upon implementation of everything incorporated into the definition of the project, as required by the Mitigation Monitoring and Reporting Program for the project. Mitigation measures are enforceable as required in the approval actions by the lead agency and other responsible agencies.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.12	Nov 3, Soluri Meserve to SFMTA, pp. 1-3	O-MBA23S7-1	LC PD-1 Exh D p. D-107	Project description assumptions
G.12	July 26, Smith at FSEIR, Vol 6 pp. Com-135-139	O-MBA10L4-31	RTC TR-12a RTC p. 13.11-171	Traffic Mitigation Measures
		O-MBA10L4-32	RTC TR-11 RTC p. 13.11-163	Improvement measures
		O-MBA10L4-33	RTC TR-12a RTC p. 13.11-171	Traffic Mitigation Measures
		O-MBA10L4-34	RTC TR-12b, 12c RTC p. 13.11-193, 13.11-196	Transit and Mission Bay FSEIR Mitigation Measures
		O-MBA10L4-35	RTC TR-12b RTC p. 13.11-193	Transit Mitigation Measures
G.12	July 27, Lippe at FSEIR, p. Com-126	O-MBA10L4-15	RTC TR-2a RTC p. 13.11-8	Methodology, Analysis Scenarios

**G.13 Appeal Issue:** The SEIR relies on the project's contribution to a fair-share fee program to mitigate the project's transportation impacts without disclosing the required information about such mitigation.

**Summary of Appeal Response G.13:** The fiscal analysis comprehensively identifies funding from several sources to support implementation of transportation mitigation measures, consistent with a fair-share fee program.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.13	Nov 3, Soluri Meserve to SFMTA, pp. 1-4	O-MBA23S7-1	LC PD-1 Exh D p. D-107	Project description assumptions
G.13	Nov 2, Smith, pp. 2-3 Urban Decay	O-MBA20L7-20	LC TR-1 Exh D p. D-141	Methodology, Analysis Scenarios

**G.14 Appeal Issue:** The transit analysis understates impacts because it relies on stale transit baseline data.

**Summary of Appeal Response G.14:** The Draft SEIR included the most current transit baseline data for the Muni screenlines available at the time of publication, and this data was updated in the Responses to Comments document to include more recent data that became available subsequent to publication. The transit impact analysis in the SEIR included the use of BART's April 2015 data. No changes regarding significant transit impacts were identified based on the updated transit screenline data presented in the Responses to Comments.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.14	July 23, Smith, p.9 <sup>a</sup>	O-MBA10L4-21	RTC TR-2c RTC p. 13.11-31	Methodology, Baseline Conditions
G.14	Nov 2, Smith FSEIR pp. 9-13	O-MBA20L7-22	LC TR-3 Exh D p. D-153	Methodology, Baseline Conditions

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).

**G.15 Appeal Issue:** The traffic analysis understates impacts because it relies on stale traffic baseline data.

**Summary of Appeal Response G.15:** The existing conditions used for the traffic impact analysis are based on traffic counts conducted in 2013 and 2014, which were adjusted to reflect full occupancy and operation of the UCSF Medical Center Phase 1 and Public Safety Building projects which were under construction when the traffic counts were conducted. Spot-check counts at key intersections were conducted in April 2015 (following opening and operation of these two facilities) and compared to the adjusted volumes used in the analysis. The adjusted volumes used in the analysis were similar to or slightly higher than those collected in the field in April 2015, and therefore adequately reflect baseline conditions.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.15	July 23, Smith, p.10 <sup>a</sup>	O-MBA10L4-22	RTC TR-2c RTC p. 13.11-31	Methodology, Baseline Conditions
G.15	Nov 2, Smith FSEIR pp. 9-13	O-MBA20L7-22	LC TR-3 Exh D p. D-153	Methodology, Baseline Conditions

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).

**G.16 Appeal Issue:** The SEIR's discussion of transportation impacts is incomplete.

**Summary of Appeal Response G.16:** Appellants' vague assertion that the SEIR's discussion of transportation impacts is incomplete is related to the number of analysis scenarios included in the SEIR. Based on the reference to the Smith letter dated November 2, 2015, the purported deficiency may be related to appellants' speculative presumption that implementation of the Muni Special Event Transit Services Plan would not be maintained despite the fact that the SFMTA Director of Transportation wrote a letter supporting these expenditures, the SFMTA Board of Director approved the expenditure plan for this service, and the reserve fund is pending before the Board of Supervisors. The SEIR also relies on a number of mitigation measures to address the possibility that the transit service plan is not implemented.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.16	July 27, Lippe, p.18	O-MBA10L4-15	RTC TR-2a RTC p. 13.11-8	Methodology, Analysis Scenario
G.16	Nov 2, Smith FSEIR pp. 1-3	O-MBA20L7-20	LC TR-1 Exh D p. D-141	Methodology, Analysis Scenario

**G.17 Appeal Issue:** Complex interrelated issues are not addressed in the SEIR.

**Summary of Appeal Response G.17:** The appellants' claim that "complex interrelated issues" were not addressed in the SEIR are related to the transfers between BART and Muni, and claims that, with implementation of the Central Subway, the transfer would be less attractive than at present, and cause more attendees to use rideshare or taxis, instead of transit. These issues were considered in the transit analysis, and the Responses to Comments document clarifies the transfers between the Union Square/Market Street Central Subway station and the Powell Street BART/Muni station. Additional analysis is not required.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.17	July 23, Smith, p.12 <sup>a</sup>	O-MBA10L4-25	RTC TR-5a RTC p. 13.11-120	Transit Impacts, Muni

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).

**G.18 Appeal Issue:** There is no evidence the Draft SEIR considered the impacts of the at-grade rail crossing of 16th Street on intersection LOS at the intersection of 16th and 3rd and 16th and 7th Streets.

**Summary of Appeal Response G.18:** Assessment of the effects of at-grade rail crossings at the intersection of Seventh/Mississippi/16th was included in the Draft SEIR as well as in the Responses to Comments document. Significant traffic impacts at this intersection were identified for the various existing plus project scenarios and 2040 cumulative conditions.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.18	July 23, Smith, p.14 <sup>a</sup>	O-MBA10L4-27	RTC TR-2f RTC p. 13.11-48	Methodology, Traffic LOS

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4). The correct date of the letter is presented in the table, above.



**G.19 Appeal Issue:** The project's truck loading and truck staging provisions are inadequate.

**Summary of Appeal Response G.19:** The truck turning templates were prepared for the Major Phase Application that was submitted for project approval to OCII. Due to the large-scale format of the truck turning overlays, they were inadvertently omitted from inclusion in the RTC document. The figures demonstrate that the on-site loading spaces were designed to accommodate trucks of varying size and would be accessible even if the larger spaces are occupied, and do not provide a different assessment than was provided in the SEIR Impact TR-8 on SEIR pp. 5.2-161 – 5.2-166. The figures are included in Exhibit D.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.19	July 23, Smith, p.14 <sup>a</sup>	O-MBA10L4-28	RTC TR-8 RTC p. 13.11-141	Loading Impacts
G.19	Nov 2, Smith FSEIR p. 22	O-MBA20L7-28	LC TR-12 Exh D p. D-175	Loading Impacts

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).

**G.20 Appeal Issue:** The SEIR concludes without foundation that the project would not have an adverse impact on emergency access to UCSF hospitals.

**Summary of Appeal Response G.20:** Appellants repeat prior assertions about the inadequacy of emergency vehicle access. Further, Appellant's claims do not recognize the substantial specific enhancements that have been developed since publication of the Draft SEIR; UCSF and other such emergency service providers have found emergency access to be adequate. This issue was adequately analyzed in the Final SEIR.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.20	July 23, Smith, p.16 <sup>a</sup>	O-MBA10L4-30	RTC TR-9 RTC p. 13.11-148	Emergency Vehicle Access Impacts
G.20	Nov 2, Smith FSEIR p. 22	O-MBA20L7-29	LC TR-13 Exh D p. D-185	Emergency Vehicle Access
G.20	Nov 10, Smith FSEIR Access	O-MBA27S9-7	LC TR-13 Exh D p. D-185	Emergency Vehicle Access

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 23, 2015 letter from Dan Smith. However, the Appellant is actually referring to a Dan Smith authored letter dated July 26, 2015 (coded in this appeal response as O-MBA10L4).



**G.21 Appeal Issue:** New information since publication of the Draft SEIR requires recirculation.

**Summary of Appeal Response G.21:** Response TR-5 in the RTC document does not provide a station level analysis for BART stations in San Francisco likely to be used by event attendees, but instead provides information as to why the preparation of a station-level analysis was not necessary and was therefore not conducted as part of the transportation analysis for the SEIR. The response also provides clarification regarding BART ridership information, and does not include any new information or analysis, or result in any change to analysis or conclusions presented in the SEIR. Recirculation of the SEIR is therefore not required pursuant to CEQA Guidelines Section 15088.5.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.21	Nov 2, Smith FSEIR p. 22	O-MBA20L7-27	LC TR-11 Exh D p. D-174	Transit Impacts, BART

**G.22 Appeal Issue:** Changes to the project since publication of the Draft SEIR require recirculation, including construction on King Street for six months and Third Street for fourteen months, which will exacerbate construction phase impacts on traffic.

**Summary of Appeal Response G.22:** Temporary transportation impacts that could occur during construction of traction power (electrical) upgrades to the Muni T Third and Central Subway light rail lines would not result in new significant impacts or require additional mitigation measures that were not previously disclosed in the Final SEIR and therefore do not require recirculation of the Final SEIR, because: (1) the potential temporary transportation impacts that could occur during construction of the electrical upgrades would not be significant, and (2) the FSEIR includes an assessment of the effects of potential transportation impacts during project construction, including construction of the proposed T Third center platform and other Muni system improvements, and (3) the construction-related impacts from the work on King Street and Third Street would be same kind of impacts as those that the FSEIR already disclosed related to the proposed T Third center platform and other Muni system improvements.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
G.22	Nov 13, Smith FSEIR King Street	O-MBA29L12-1	LC TR-14 Exh D p. D-189	Construction-related Transportation Impacts



## TOPIC H: HYDROLOGY, WATER QUALITY, AND BIOLOGICAL RESOURCES

**H.1 Appeal Issue:** Appellant states that the documents cited below set grounds for an appeal.

**Summary of Appeal Response H.1:** This statement references documents that the appellant has previously submitted to OCII, but does not restate any of the specific claims contained in those documents. As discussed below, OCII responded to all of the claims contained in the referenced documents concerning hydrology, water quality, and biological resources prior to certification of the FSEIR or in Exhibit D of this Appeal Response packet.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
H.1	July 24, Lippe	O-MBA11L5-7 O-MBA11L5-14 O-MBA11L5-15	RTC HYD-2 RTC, p. 13.21-3	Stormwater runoff during construction and operation
H.1	July 24, Lippe	O-MBA11L5-3	RTC HYD-3 RTC, p. 13.21-14	Water quality during interim period
H.1	July 24, Lippe	O-MBA11L5-5	RTC HYD-4 RTC, p. 13.21-17	Changes in effluent water quality
H.1	July 24, Lippe	O-MBA11L5-4 O-MBA11L5-6 O-MBA11L5-8 O-MBA11L5-9	RTC HYD-5 RTC, p. 13.21-21	Wet weather discharges
H.1	July 24, Lippe	O-MBA11L5-17	RTC HYD-6 RTC, p. 13.21-30	Flooding as a result of stormwater runoff
H.1	July 24, Lippe	O-MBA11 L5-18	RTC HYD-7 RTC, p. 13.21-33	Flooding as a result of sea level rise
H.1	July 21 Hageman (Exhibit 1 to July 24 Lippe)	O-MBA11 L5-19	RTC HYD-2 RTC, p. 13.21-3	Stormwater runoff during construction and operation
H.1	July 21 Ringleberg (Exhibit 2 to July 24, Lippe)	O-MBA11 L5-24 O-MBA11 L 5-33	RTC HYD-2 RTC, p. 13.21-3	Stormwater runoff during construction and operation – biological impacts or runoff
H.1	July 21 Ringleberg (Exhibit 2 to July 24, Lippe)	O-MBA11L5-36	RTC HYD-5 RTC, p. 13.21-21	Stormwater runoff during construction and operation – biological impacts or runoff
H.1	July 22 Cline (Exhibit B to July 26 Soluri Meserve)	O-MBA7S2-42 through -59	RTC HAZ-1 RTC, p. 13.22-1 RTC HAZ-3 RTC, p. 13.22-15 RTC HAZ-4 RTC, p. 13.22-29 RTC HAZ-5 RTC, p. 13.22-32 RTC HAZ-6 RTC, p. 13.22-33 RTC HAZ-7 RTC, p. 13.22-34	Reliance on 1998 FSEIR  Site contamination  Naturally occurring asbestos  Reuse of excavated soil  Disposal of treated wood  Lead agency for school evaluations
H.1	July 26 Soluri Meserve	O-MBA7S2-27	RTC HYD-6 RTC, p. 13.21-30	Flooding as a result of sea level rise
H.1	July 26 Soluri Meserve	O-MBA7S2-19 O-MBA7S2-22	RTC HYD-8 RTC, p. 13.21-35	Tsunami risks



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
H.1	Nov 2, Lippe letter <sup>a</sup>	O-MBA20L7-6	LC HYD-1 Exh D, p. D-313	NPDES Permit compliance
H.1	Nov 2 Hagemen (Exhibit H to Nov 2 Lippe)	O-MBA20L7-33	LC HYD-3 Exh D, p. D-324	Stormwater runoff during construction and operation
H.1	Nov 2 BSK (Exhibit I to Nov 2 Lippe)	O-MBA20L7-35	LC HYD-4 Exh D, p. D-328	Water quality during interim period
H.1	Nov 2 BSK (Exhibit I to Nov 2 Lippe)	O-MBA20L7-36	LC HYD-1 Exh D, p. D-313	NPDES Permit compliance
H.1	Nov 2 Ringelberg (Exhibit J to Nov 2 Lippe)	O-MBA20L7-43	LC HYD-5 Exh D, p. D-330	Water quality regulatory framework
H.1	Nov 2 Ringelberg (Exhibit J to Nov 2 Lippe)	O-MBA20L7-47	LC HYD-3 Exh D, p. D-324	Stormwater runoff during construction and operation, biological effects
H.1	July 16 BSK Wetland (Exhibit K to Nov 2 Lippe)	O-MBA20L7-48	LC BIO-1 Exh D, p. D-291	Wetlands
H.1	Oct 29 BSK Wetland (Exhibit L Nov 2 Lippe)	O-MBA20L7-49	LC BIO-1 Exh D, p. D-291	Wetlands

<sup>a</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

**H.2 Appeal Issue:** Appellant states that the project is not sufficient as an informational document with respect to the project's wastewater treatment infrastructure impacts and the response to Comment UTIL-3 is inadequate.

**Summary of Appeal Response H.2:** Response UTIL-3 is adequate in that it explains information discussed in Impact C-UT-2 of the SEIR. Response UTIL-3 and Impact C-UT-2 explain that the wastewater flow from the project would not cause the Mariposa Pump Station to exceed its pumping capacity and would not require the construction of new or expanded wastewater treatment facilities. These two discussions further explain that when wastewater flow from this project is considered with existing and reasonably foreseeable total future wastewater flows from all identified reasonably foreseeably future development in the area, including the build-out of the Mission Bay Redevelopment Plan and UCSF Long Range Development Plan, and other area development, the SFPUC anticipates that it will need to replace or upgrade the Mariposa Pump Station. However, the SFPUC has not yet identified a timetable for completing these long term improvements, and has not developed specified plans or designs for construction of these yet-to-be-designed improvements. Any improvements that the SFPUC determines in the future to be needed to address these future cumulative wastewater flows are not part of the project and CEQA review will appropriately be addressed by the SFPUC once it determines the timetable for needed improvements and the nature of the improvements. But such improvements are not part of this project. The FSEIR adequately discusses



impacts associated with wastewater flows because it fully discusses the project impacts, the project's contribution to cumulative impacts, and, draws reasoned conclusions about the nature of impacts that could result from whatever future facility improvements the SFPUC ultimately determines are needed.

Response UTIL-3 cites case law that supports the approach to analysis used in Impact C-UT-2.

Appeal Code	Previous Comment/Letter Cited	Comment Code	Response Code	Topic
H.2	July 26 Lippe, pp. 1-4 <sup>a</sup>	O-MBA11L5-2	RTC UTIL-3 RTC, p. 13.17-7	Environmental effects of new facilities
H.2	July 26 Lippe, pp. 1-47 <sup>a</sup>	O-MBA11L5-3	RTC HYD-3 RTC, p. 13.21-14 RTC UTIL-6 RTC, p. 13.17-17	Water quality during interim period Description of interim improvements
H.2	Nov 2 Lippe, pp. 8-10 <sup>b</sup>	O-MBA20L7-6	LC UTIL-1 Exh D, p. D-272	Cumulative impacts on wastewater facilities

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 26 letter from Lippe. However, this Appellant is actually referring to a Lippe letter dated July 24, 2015 (coded in this appeal response as O-MBA11L5).

<sup>b</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

**H.3 Appeal Issue:** Appellant states that The DSEIR is not sufficient as an informational document with respect to the Project's contaminated wastewater (i.e. combined sewage and stormwater) impacts on San Francisco Bay water quality or biological resources including from inadequately treated sewage and toxic chemicals (e.g., PCB's and metals), and the FSEIR's Response to these comments (HYD-3 – HYD-6) are inadequate.

**Summary of Appeal Response H.3:** Regarding wastewater, the Southeast Water Pollution Control Plant has sufficient capacity to serve the proposed project. The proposed project would not cause violations of the City's NPDES permit conditions related to combined sewer discharges, therefore the project would not result in significant project-level or cumulative impacts on water quality or biological resources due to combined sewer discharges.

Regarding stormwater, the project would not result in the discharges of contaminated soil from the site in stormwater flows to the Bay during construction because, as discussed in Impact HY-1 of the Initial Study, construction activities would comply with the Construction General Stormwater Permit issued by the State Water Resources Control Board. This permit specifies minimum best management practices (BMPs) to be implemented to ensure that stormwater discharges and authorized nonstormwater discharges do not contain pollutants that could cause or contribute to an exceedance of any applicable water quality objective or water quality standards in the Bay.



The project would not result in discharges of contaminated soil from the site in stormwater flows to the Bay once the project is constructed because the proposed project includes excavation of soil to a minimum depth of 12 feet throughout the project site, and off - site disposal of all excavated soil. Clean engineered backfill would be used where needed. Once the project is constructed, the site would be occupied by buildings or paved. None of the existing soil on the site would be exposed at grade and all landscaped areas on the site would be above structures; clean soil would be brought in for all landscaped areas on the project site. This would preclude stormwater contact with contaminated soil once the site is developed.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
H.3	July 26 Lippe, pp. 4-10 <sup>a</sup>	O-MBA11L5-7	RTC HYD-2 RTC, p. 13.21-3	Stormwater runoff during construction and operation, biological effects
H.3	July 26 Lippe, pp. 4-10 <sup>a</sup>	O-MBA11L5-5	RTC HYD-4 RTC, p. 13.21-17	Changes in effluent water quality
H.3	July 26 Lippe, pp. 4-10 <sup>a</sup>	O-MBA11L5-4 O-MBA11L5-6 O-MBA11L5-8 O-MBA11L5-9	RTC HYD-5 RTC, p. 13.21-21	Wet weather discharges
H.3	Nov 2 Lippe, pp. 10-12 <sup>b</sup>	O-MBA20L7-7	LC HYD-1 Exh D, p. D-313	NPDES Permit compliance
H.3	July 21 Hageman (Exhibit 1 to July 24 Lippe)	O-MBA11L5-19	RTC HYD-2 RTC, p. 13.21-3	Stormwater runoff during construction and operation
H.3	Nov 2 Hageman <sup>c</sup> (Exhibit H to Nov 2 Lippe)	O-MBA20L7-33	LC HYD-3 Exh D, p. D-324	Stormwater runoff during construction and operation
H.3	Nov 2 BSK (Exhibit I to Nov 2 Lippe)	O-MBA20L7-35	LC HYD-4 Exh D, p. D-328	Water quality during interim period
H.3	Nov 2 BSK (Exhibit I to Nov 2 Lippe)	O-MBA20L7-36	LC HYD-1 Exh D, p. D-313	NPDES Permit compliance
H.3	July 22 Cline, pp 1-15 (Exhibit B to July 26 Soluri Meserve)	O-MBA7S2-42 through -59	RTC HAZ-1 RTC, p. 13.22-1 RTC HAZ-3 RTC, p. 13.22-15 RTC HAZ-4 RTC, p. 13.22-29 RTC HAZ-5 RTC, p. 13.22-32 RTC HAZ-6 RTC, p. 13.22-33 RTC HAZ-7 RTC, p. 13.22-34	Reliance on 1998 FSEIR Site contamination Naturally occurring asbestos Reuse of excavated soil Disposal of treated wood Lead agency for school evaluations

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 26 letter from Lippe. However, the Appellant is actually referring to a Lippe letter dated July 24, 2015 (coded in this appeal response as O-MBA11L5).

<sup>b</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

<sup>c</sup> In the appeal letter, the Appellant mistakenly references a November 2 letter from Hageman. However, the Appellant is actually referring to a Hageman authored letter dated November 1, 2015 (coded in this appeal response as O-MBA20L7).



**H.4 Appeal Issue:** Appellant states that the DSEIR is not sufficient as an informational document with respect to project impacts on biological resources, including wetlands and wildlife.

**Summary of Appeal Response H.4:** The water-filled depression on the project site was formed as a result of excavation in dry land for site remediation purposes and does not provide any of the physical functions and services associated with functional wetland ecology. The project would have no effect on federally protected wetlands because the excavations subject to ponding on the site are due to construction-related activities and are not jurisdictional under the Clean Water Act. The project is not subject to federal consistency review under the Coastal Zone Management Act because it does not require any federal approvals and because it would not affect coastal resources.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
H.4	July 26 Lippe, pp. 11-15 <sup>a</sup>	O-MBA11L5-12	RTC BIO-1 RTC, p. 13.19-1	General approach to analysis
H.4	July 26 Lippe, pp. 11-15 <sup>a</sup>	O-MBA11L5-13	RTC BIO-2 RTC, p. 13.19-10	Setting
H.4	July 26 Lippe, pp. 11-15 <sup>a</sup>	O-MBA11L5-13	RTC BIO-6 RTC, p. 13.19-40	Avian impacts
H.4	July 26 Lippe, pp. 11-15 <sup>a</sup>	O-MBA11L5-14 O-MBA11L5-15	RTC BIO-4 RTC, p. 13.19-16	Sensitive natural communities
H.4	July 26 Lippe, pp. 11-15 <sup>a</sup>	O-MBA11L5-16	RTC BIO-5 RTC, p. 13.19-25	Wetlands
H.4	July 16 BSK Wetlands (Exhibit K to Nov 2 Lippe)	O-MBA20L7-28	LC BIO-1 Exh D, p. D-291	Wetlands
H.4	July 21 Ringelberg (Exhibit 2 to July 24 Lippe)	O-MBA11L5-20	RTC BIO-1 RTC, p. 13.19-1	Approach to analysis
H.4	July 21 Ringelberg (Exhibit 2 to July 24 Lippe)	O-MBA11L5-21	RTC BIO-2 RTC, p. 13.19-10	Setting
H.4	July 21 Ringelberg (Exhibit 2 to July 24 Lippe)	O-MBA11L5-22	RTC BIO-3 RTC, p. 13.19-12	Special-status species
H.5	July 21 Ringelberg (Exhibit 2 to July 24 Lippe)	O-MBA11L5-25 O-MBA11L5-26 O-MBA11L5-28 O-MBA11L5-29 O-MBA11L5-30 O-MBA11L5-31 O-MBA11L5-34 O-MBA11L5-35	RTC BIO-5 RTC, p. 13.19-25	Wetlands
H.5	July 21 Ringelberg (Exhibit 2 to 7/24/15 letter from Lippe)	O-MBA11L5-23 O-MBA11L5-25 O-MBA11L5-34	RTC BIO-6 RTC, p. 13.19-40	Avian impacts
H.4	July 21 Ringelberg (Exhibit 2 to 7/24/15 letter from Lippe)	O-MBA11L5-24 O-MBA11L5-32 O-MBA11L5-33	RTC BIO-4 RTC, p. 13.19-16	Sensitive natural communities



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
H.4	Oct 29 BSK Wetland(Exhibit L to Nov 2 Lippe)	O-MBA20L7-9	LC BIO-1 Exh D, p. D-291	Wetlands
H.4	Nov 2 Lippe, pp. 10-15 <sup>b</sup>	O-MBA20L7-8	LC BIO-1 Exh D, p. D-291	Wetlands
H.4	Nov 2 BSK (Exhibit J to Nov 2 Lippe)	O-MBA20L7-39	LC BIO-2 Exh D, p. D-294	Biological resources setting
H.4	Nov 2 BSK (Exhibit J to Nov 2 Lippe)	O-MBA20L7-40 O-MBA20L7-46	LC BIO-3 Exh D, p. D-299	Special-status species and sensitive natural communities
H.4	Nov 2 BSK (Exhibit J to Nov 2 Lippe)	O-MBA20L7-41 O-MBA20L7-44	LC BIO-1 Exh D, p. D-291	Wetlands
H.4	Nov 2 BSK (Exhibit J to Nov 2 Lippe)	O-MBA20L7-42 O-MBA20L7-45	LC BIO-4 Exh D, p. D-302	Avian impacts
H.4	Nov 2 Ringelberg (Exhibit J to Nov 2 Lippe)	O-MBA20L7-38	LC ERP-6 Exh D, p. D-98	General Comments on Environmental Topics
		O-MBA20L7-39	LC BIO-2 Exh D, p. D-294	Biological resources setting
		O-MBA20L7-40	LC BIO-3 Exh D, p. D-299	Special-status species and sensitive natural communities
		O-MBA20L7-41	LC BIO-1 Exh D, p. D-291	Wetlands
		O-MBA20L7-42	LC BIO-4 Exh D, p. D-302	Avian impacts
		O-MBA20L7-43	LC HYD-5 Exh D, p. D-330	Water quality regulatory framework
		O-MBA20L7-44	LC BIO-1 Exh D, p. D-291	Wetlands
		O-MBA20L7-45	LC BIO-4 Exh D, p. D-302	Avian impacts
		O-MBA20L7-46	LC BIO-3 Exh D, p. D-299	Special-status species and sensitive natural communities
		O-MBA20L7-47	LC HYD-3 Exh D, p. D-324	Stormwater runoff during construction and operation
H.4	Oct 7 Soluri Meserve	O-MBA13S4-1	RTC BIO-5 RTC, p. 13.19-25	Wetlands

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 26 letter from Lippe. However, the Appellant is actually referring to a Lippe letter dated July 24, 2015 (coded in this appeal response as O-MBA11L5).

<sup>b</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015.

**H.5 Appeal Issue:** Appellant states that the SEIR fails to include all feasible mitigation measures to lessen or mitigate impacts to state and/or federal jurisdictional wetland features.

**Summary of Appeal Response H.5:** The project would not result in significant impacts on wetland habitat; therefore no mitigation is required.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
H.5	July 26 Lippe, pp. 11-15 <sup>a</sup>	O-MBA11L5-12	RTC BIO-1 RTC, p. 13.19-1	General approach to analysis
H.5	July 26 Lippe, pp. 11-15 <sup>a</sup>	O-MBA11L5-13	RTC BIO-2 RTC, p. 13.19-10	Setting
H.5	July 26 Lippe, pp. 11-15 <sup>a</sup>	O-MBA11L5-13	RTC BIO-6 RTC, p. 13.19-40	Avian impacts
H.5	July 26 Lippe, pp. 11-15 <sup>a</sup>	O-MBA11L5-14 O-MBA11L5-15	RTC BIO-4 RTC, p. 13.19-16	Sensitive natural communities
H.5	July 26 Lippe, pp. 11-15 <sup>a</sup>	O-MBA11L5-16	RTC BIO-5 RTC, p. 13.19-25	Wetlands
H.5	July 16 BSK Wetlands (Exhibit K to Nov 2 Lippe)	O-MBA20L7-28	LC BIO-1 Exh D, p. D-291	Wetlands
H.5	July 21 Ringelberg (Exhibit 2 to July 24 Lippe)	O-MBA11L5-20	RTC BIO-1 RTC, p. 13.19-1	Approach to analysis
H.5	July 21 Ringelberg (Exhibit 2 to July 24 Lippe)	O-MBA11L5-21	RTC BIO-2 RTC, p. 13.19-10	Setting
H.5	July 21 Ringelberg (Exhibit 2 to July 24 Lippe)	O-MBA11L5-22	RTC BIO-3 RTC, p. 13.19-12	Special-status species
H.5	July 21 Ringelberg (Exhibit 2 to July 24 Lippe)	O-MBA11L5-25 O-MBA11L5-26 O-MBA11L5-28 O-MBA11L5-29 O-MBA11L5-30 O-MBA11L5-31 O-MBA11L5-34 O-MBA11L5-35	RTC BIO-5 RTC, p. 13.19-25	Wetlands
H.5	July 21 Ringelberg (Exhibit 2 to July 24 Lippe)	O-MBA11L5-23 O-MBA11L5-25 O-MBA11L5-34	RTC BIO-6 RTC, p. 13.19-40	Avian impacts
H.5	July 21 Ringelberg (Exhibit 2 to July 24 Lippe)	O-MBA11L5-24 O-MBA11L5-32 O-MBA11L5-33	RTC BIO-4 RTC, p. 13.19-16	Sensitive natural communities
H.5	Oct 29 BSK Wetland (Exhibit L to Nov 2 Lippe)	O-MBA20L7-9	LC BIO-1 Exh D, p. D-291	Wetlands
H.5	Nov 2 Lippe, pp. 12-13 <sup>b</sup>	O-MBA20L7-8	LC BIO-1 Exh D, p. 291	Wetlands
H.5	Nov 2 BSK (Exhibit J to Nov 2 Lippe)	O-MBA20L7-39	LC BIO-2 Exh D, p. D-294	Biological resources setting
H.5	Nov 2 BSK (Exhibit J to Nov 2 Lippe)	O-MBA20L7-40 O-MBA20L7-46	LC BIO-3 Exh D, p. D-299	Special-status species and sensitive natural communities
H.5	Nov 2 BSK (Exhibit J to Nov 2 Lippe)	O-MBA20L7-41 O-MBA20L7-44	LC BIO-1 Exh D, p. D-291	Wetlands
H.5	Nov 2 BSK (Exhibit J to Nov 2 Lippe)	O-MBA20L7-42 O-MBA20L7-45	LC BIO-4 Exh D, p. D-302	Avian impacts



Appeal Code	Previous Comment/Letter Cited	Comment Code	Response Code	Topic
H.5	Nov 2 Ringelberg (Exhibit J to Nov 2 Lippe)	This is the same letter as 11/2/15 letter from BSK, above		

- <sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 26 letter from Lippe. However, the Appellant is actually referring to a Lippe letter dated July 24, 2015 (coded in this appeal response as O-MBA11L5).
- <sup>b</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

**H.6 Appeal Issue:** The SEIR fails to include all feasible mitigation to lessen or mitigate the significant and unavoidable cumulative impact associated with exceeding of the capacity of the Mariposa Pump Station.

**Summary of Appeal Response H.6:** As discussed in Impact UT-5 of the SEIR, the project wastewater flows would not cause the Mariposa Pump Station to exceed its pumping capacity. However, the SFPUC anticipates that it would need to replace or upgrade the Mariposa Pump Station to accommodate future cumulative flows, including those from build-out of the Mission Bay Redevelopment Plan and UCSF Long Range Development Plan. Needed improvements and the timing of these improvements to the pump station will be determined by the SFPUC in the future in consideration of its overall wastewater control system and are outside of the project sponsor's control. Further, because the exact nature of the improvements is not designed, it cannot be said with certainty whether impacts associated with the construction of any such improvements will be less than significant. Thus, there are no feasible mitigation measures within the control of the project sponsor to mitigate the cumulative effects related to exceeding the capacity of the Mariposa Pump Station.

Appeal Code	Previous Comment/Letter Cited	Comment Code	Response Code	Topic
H.6	July 26 Lippe, pp. 1-10 <sup>a</sup>	O-MBA11L5-2 O-MBA11L5-10	RTC UTIL-3 RTC, p. 13.17-7	Environmental effects of new facilities
H.6	July 26Lippe, pp. 1-10 <sup>a</sup>	O-MBA11L5-3	RTC UTIL-6 RTC, p. 13.17-17 RTC HYD-3 RTC, p. 13.21-14	Description of interim improvements
H.6	Nov 2 Lippe, pp. 8-12 <sup>b</sup>	O-MBA20L7-6	LC UTIL-1 Exh D, p. D-272	Cumulative impacts on wastewater facilities
H.6	Nov 2 BSK (Exhibit I to Nov 2 Lippe)	O-MBA20L7-35	LC HYD-4 Exh D, p. D-328	Water quality, interim wastewater system improvements
H.6	Nov 2 BSK (Exhibit I to Nov 2 Lippe)	O-MBA20L7-36	LC HYD-1 Exh D, p. D-313	NPDES permit compliance



Appeal Code	Previous Comment/Letter Cited	Comment Code	Response Code	Topic
H.6	Nov 2 BSK (Exhibit I Nov 2 Lippe)	O-MBA20L7-37	LC UTIL-2 Exh D, p. D-276	Description of interim improvements
H.6	Nov 2 Ringelberg (Exhibit I to Nov 2 Lippe)	This is the same letter as Nov 2 BSK, above		

- <sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 26 letter from Lippe. However, the Appellant is actually referring to a Lippe letter dated July 24, 2015 (coded in this appeal response as O-MBA11L5).
- <sup>b</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

**H.7 Appeal Issue:** Appellant states that the DSEIR is not sufficient as an informational document with respect to the Project's flooding risk and inundation impacts.

**Summary of Appeal Response H.7:** As discussed in Impact HY-7 of the SEIR, the project site is not within the existing 100-year flood zone and would not be subject to future flooding as a result of sea level rise in 2050 based on the projected amount of sea-level rise. Temporary flooding could occur by 2100 as a result of 100-year flooding in combination with sea level rise. However, the project includes flood resilient features consistent with San Francisco's Floodplain Management Ordinance for construction in flood zones. Below grade structures, including the parking garage and practice courts would be vulnerable to temporary inundation, but feasible flood proofing measures, such as installation of sand bags or flood barriers at the parking garage entrances would prevent impacts from flooding under this scenario if necessary. Flooding as a result of stormwater runoff would not occur because, while the storm sewer system is designed to accommodate the five-year storm in accordance with the Mission Bay and San Francisco subdivision regulations, the corridors used to convey overland stormwater flows in excess of the five - year storm are designed to accommodate 100 - year flood flows, also in accordance with the subdivision regulations.

Appeal Code	Previous Comment/Letter Cited	Comment Code	Response Code	Topic
H.7	July 26 Lippe, pp. 15-16 <sup>a</sup>	O-MBA11L5-17	RTC HYD-6 RTC, p. 13.21-30	Flooding as a result of stormwater runoff
H.7	July 26 Lippe, pp. 15-16 <sup>a</sup>	O-MBA11L5-18	RTC HYD-7 RTC, p. 13.21-33	Flooding as a result of sea level rise

- <sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 26 letter from Lippe. However, the Appellant is actually referring to a Lippe letter dated July 24, 2015 (coded in this appeal response as O-MBA11L5).



## TOPIC I: NOISE

**I.1 Appeal Issue:** Appellant does not describe any specific issues and only lists the documents listed below as the grounds for appeal.

**Summary of Appeal Response I.1:** All comment letters and supporting documentation previously submitted to OCII have been reviewed and substantive comments have been responded to in writing in the Response to Comments document or in Exhibit D of this appeal response. Refer to appeal responses I.2 to I.4 for responses to specific issues.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
I.1	July 25, Lippe	O-MBA9L3-1 to O-MBA9L3-9	RTC Section 13.12, pp. 13.12-1 to 13.12-29	Various Noise Issues, see appeal issues below for specific issues
I.1	July 24, Hubach <sup>a</sup>	O-MBA9L3-6 to O-MBA9L3-9	RTC Section 13.12, pp. 13.12-1 to 13.12-29	Various Noise Issues
I.1	Nov 2, Lippe <sup>b</sup>	O-MBA20L7-9	LC NOI-1 Exh D, p. D-197	Noise significance thresholds
I.1	Nov 2, Hubach	O-MBA20L7-50 to O-MBA20L7-52	LC NOI-1 and LC NOI-2 Exh D, p. D-197	Noise significance thresholds, and Noise impacts of project refinements

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 24 letter from Hubach. However, the Appellant is actually referring to a Hubach letter dated July 22, 2015 (coded in this appeal response as O-MBA9L3).

<sup>b</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

**I.2 Appeal Issue:** The appellant questions use of the San Francisco Noise Ordinance in assessing the significance of project-generated noise. The RTC document responses regarding use of the San Francisco Police Code as thresholds of significance is inconsistent with CEQA.

**Summary of Appeal Response I.2:** The noise analyses of the SEIR apply not only the limitation on construction equipment noise level (80 decibels at 100 feet) in the Police Code as a tool for determining significance but also apply a 10 decibel increase over existing conditions for assessment of construction noise impacts. The SEIR does not rely solely on compliance with regulatory standards in the Police Code to determine whether noise impacts are considered significant, the analysis for construction-related noise impacts also discusses the Mission Bay Good Neighbor Policy. The approach used is consistent with Appendix G of the CEQA Guidelines, which calls for addressing whether the proposed project would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the



project but leaves the determination of the quantitative threshold to be applied at the discretion of the lead agency. Thus, the approach used is consistent with the CEQA Guidelines in that it considered whether construction activities would increase ambient noise above the 10 decibel level, an increased above which the FSEIR judged to be significant because it would result in a more than doubling of existing noise levels.

Appeal Code	Previous Comment/Letter Cited	Comment Code	Response Code	Topic
I.2	July 25, Lippe	O-MBA9L3-1 to O-MBA9L3-9	RTC Section 13.12, pp. 13.12-1 to 13.12-29	Various Noise Issues, see appeal issues below for specific issues
I.2	July 24, Hubach <sup>a</sup>	O-MBA9L3-6 to O-MBA9L3-9	RTC Section 13.12, pp. 13.12-1 to 13.12-29	Various Noise Issues
I.2	Nov 2, Lippe FSEIR, pp. 1-2, 14-15 <sup>b</sup>	O-MBA20L7-1	LC ERP-1 Exh D p. D-71	Adequacy of SEIR and CEQA process
		O-MBA20L7-2	LC ERP-4 Exh D, p. D-89	Public Comment
		O-MBA20L7-9	LC NOI-1 Exh D, p. D-197	Noise significance thresholds
I.2	Nov 2, Hubach	O-MBA20L7-50 to O-MBA20L7-52	LC NOI-1 and LC NOI-2 Exh D, p. D-197	Noise significance thresholds, and Noise impacts of project refinements

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 24 letter from Hubach. However, the Appellant is actually referring to a Hubach letter dated July 22, 2015 (coded in this appeal response as O-MBA9L3).

<sup>b</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

**I.3 Appeal Issue:** The SEIR uses ambient plus increment thresholds of significance for all noise impacts, which the Appellant asserts is a legal error.

**Summary of Appeal Response I.3:** The commenter's disagreement over the methodology used in the SEIR is noted. However a lead agency is vested with discretion to choose the proper significance threshold and does not violate CEQA when it chooses to reject different thresholds proposed by a project opponent. It should be noted that the CEQA Guidelines Appendix G, Section XII (c) calls for determining whether the project causes "A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project" and Section XII (d) calls for determining whether the project causes "A temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project." The noise impact methodology used in the SEIR responds directly to those CEQA Guideline inquiries with respect to identifying whether or not the project would result in a substantial increase over ambient noise levels.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
I.3	July 24, Hubach, p. 5 <sup>a</sup>	O-MBA9L3-8	RTC NOI-2b RTC p. 13.12-14	Operational noise thresholds
I.3	July 25, Lippe	O-MBA9L3-1 to O-MBA9L3-9	RTC Section 13.12, pp. 13.12-1 to 13.12-29	Various Noise Issues, see appeal issues below for specific issues
I.3	July 24, Hubach <sup>a</sup>	O-MBA9L3-6 to O-MBA9L3-9	RTC Section 13.12, pp. 13.12-1 to 13.12-29	Various Noise Issues
I.3	Nov 2, Lippe FSEIR, pp. 1-2, 14-15 <sup>b</sup>	O-MBA20L7-1	LC ERP-1 Exh D, p. D-71	Adequacy of SEIR and CEQA process
		O-MBA20L7-2	LC ERP-4 Exh D, p. D-89	Public Comment
		O-MBA20L7-9	LC NOI-1 Exh D, p. D-197	Noise significance thresholds
I.3	Nov 2, Hubach	O-MBA20L7-50 to O-MBA20L7-52	LC NOI-1 and LC NOI-2 Exh D, p. D-197	Noise significance thresholds, and Noise impacts of project refinements

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 24 letter from Hubach. However, the Appellant is actually referring to a Hubach letter dated July 22, 2015 (coded in this appeal response as O-MBA9L3).

<sup>b</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

#### **I.4 Appeal Issue:** The SEIR does not use thresholds of significance based on human health and welfare.

**Summary of Appeal Response I.4:** See responses above to Appeal Issues I.2 and I.3.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
I.4	July 25, Lippe, pp. 4-7	O-MBA9L3-2	RTC NOI-2a RTC, p. 13.12-6	Construction noise thresholds
		O-MBA9L3-3	RTC NOI-3 RTC, p. 13.12-21	Construction noise impacts
		O-MBA9L3-4	RTC NOI-2b RTC, p. 13.12-14	Operational noise thresholds
		O-MBA9L3-5	RTC NOI-5 RTC, p. 13.12-26	Vibration impacts
I.4	July 24, Hubach, pp. 3-6 <sup>a</sup>	O-MBA9L3-8	RTC NOI-2b RTC, p. 13.12-14	Operational noise thresholds
		O-MBA9L3-9	RTC NOI-5 RTC, p. 13.12-26	Vibration impacts
I.4	Nov 2, Lippe FSEIR, pp. 1-2, 14-15 <sup>b</sup>	O-MBA20L7-1	LC ERP-1 Exh D, p. D-71	Adequacy of SEIR and CEQA process
		O-MBA20L7-2	LC ERP-4 Exh D, p. D-89	Public Comment



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
I.4 (cont.)	Nov 2, Lippe FSEIR, pp. 1-2, 14-15 <sup>b</sup>	O-MBA20L7-9	LC NOI-1 Exh D, p. D-197	Noise significance thresholds
I.4	Nov 2, Hubach	O-MBA20L7-50 to O-MBA20L7-52	LC NOI-1 and LC NOI-2 Exh D, p. D-197	Noise significance thresholds, and Noise impacts of project refinements

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 24 letter from Hubach. However, the Appellant is actually referring to a Hubach letter dated July 22, 2015 (coded in this appeal response as O-MBA9L3).

<sup>b</sup> In the appeal letter, the Appellant references a November 2 letter from Lippe (coded in this appeal response as O-MBA20L7). Please note that the first page of this letter is dated November 2, 2015, however, pages 2 through 16 of this letter are dated November 3, 2015. For consistency, this appeal response refers to this Lippe letter as being dated November 2, 2015.

## TOPIC J: GREENHOUSE GASES EMISSIONS

**J.1 Appeal Issue:** The SEIR's conclusion that greenhouse gases (GHG) emissions are less than significant is not supported by substantial evidence.

**Summary of Appeal Response J.1:** The SEIR GHG emissions impact analysis was conducted consistent with *San Francisco's Greenhouse Gas Reduction Strategy*, as approved by the Bay Area Air Quality Management District (BAAQMD) and consistent with CEQA Guidelines Sections 15064.4 and 15183.5. The SEIR GHG emissions analysis determined that the proposed project would be consistent with *San Francisco's Greenhouse Gas Reduction Strategy*, as documented on the Greenhouse Gas Analysis Compliance Checklist, whereby the project would reduce its GHG emissions through compliance with regulations and policies to increase energy efficiency, implement green building strategies, adopt zero waste strategies, incorporate recycling and composting, and more. Because the City's local GHG reduction targets are more aggressive than those of the region or the State, consistency with the City's Greenhouse Gas Reduction Strategy necessarily demonstrates consistency with the State's GHG regulations, the Governor's executive orders, and the Bay Area 2010 Clean Air Plan. Therefore, the project's impacts related to GHG emissions were determined to be less than significant.

The appellant has raised a number of concerns that mistakenly conflates the GHG emissions impact analysis for the SEIR with the GHG analysis required under the AB 900 process. The analysis for the AB 900 process is a separate and distinct requirement for the project to qualify as an environmental leadership project under AB 900 and was not used to support the CEQA analysis in the SEIR.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
J.1	June 30, oral comments by Osha Meserve	PH-Meserve-4	RTC GHG-2 RTC, p. 13-14-5	Greenhouse gases emissions, approach to analysis
J.1	June 30, oral comments by Susan Vaughn	PH-Vaughn-2 PH-Vaughn-3 PH-Vaughn-5	RTC GHG-2 RTC, p. 13-14-5	Greenhouse gases emissions, approach to analysis
J.1	July 26, Soluri Meserve, pp. 2-6	O-MBA7S2-2 O-MBA7S2-5	RTC GHG-2 RTC, p. 13-14-5	Greenhouse gases emissions, approach to analysis
		O-MBA7S2-3 O-MBA7S2-4	RTC AB-1 RTC, p. 13.4-10	AB 900 Environmental Leadership Certification
J.1	July 27, Susan Vaughn, Sierra Club	O-Sierra-6 O-Sierra-10 O-Sierra-11	RTC GHG-2 RTC, p. 13-14-5	Greenhouse gases emissions, approach to analysis
		O-Sierra-9 O-Sierra-10 O-Sierra-11	RTC AB-1 RTC, p. 13.4-10	AB 900 Environmental Leadership Certification
J.1	July 20, Patrick Sullivan and John Henkelman (Exhibit A to July 26 Soluri Meserve)	O-MBA7S2-41	RTC GHG-2 RTC, p. 13-14-5	Greenhouse gases emissions, approach to analysis
		O-MBA7S2-40 O-MBA7S2-41	RTC AB-1 RTC, p. 13.4-10	AB 900 Environmental Leadership Certification
J.1	Nov 2, Soluri Meserve, pp. 3-6	O-MBA16S6-3	LC GHG-1 Exh D, p. D-256	Greenhouse gases emissions, approach to analysis
J.1	Nov 2, Patrick Sullivan and John Henkelman (Exhibit 1 to Nov 2 Soluri Meserve)	O-MBA16S6-11	LC GHG-1 Exh D, p. D-256	Greenhouse gases emissions, approach to analysis

**J.2 Appeal Issue:** The appellant asserts that recirculation is required due to the Final SEIR's change in approach to GHG analysis from the Draft SEIR.

**Summary of Appeal Response J.2:** The appellant is mistaken. There was no change in approach between the Draft and Final SEIR for the GHG emissions impact analysis. The RTC document provided some text revisions to clarify this point. The appellant has raised a number of concerns that mistakenly conflates the GHG emissions impact analysis for the SEIR with the GHG analysis required under the AB 900 process. The analysis for the AB 900 process is a separate and distinct requirement for the project to qualify as an environmental leadership project under AB 900 and was not used to support the CEQA analysis in the SEIR. Recirculation is not warranted on the basis of the appellant's concerns on the approach to the GHG emissions impact analysis.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
J.2	Nov 2, Soluri Meserve, pp. 3-6	O-MBA16S6-3	LC GHG-1 Exh D, p. D-256	Greenhouse gases emissions, approach to analysis
J.2	Nov 2, Patrick Sullivan and John Henkelman (Exhibit 1 to Nov 2 Soluri Meserve)	O-MBA16S6-11	LC GHG-1 Exh D, p. D-256	Greenhouse gases emissions, approach to analysis



**J.3 Appeal Issue:** The appellant asserts that because quantitative methods of GHG emissions analysis are available, that the SEIR is required to employ them.

**Summary of Appeal Response J.3:** As described above in Summary of Appeal Response J.1, the SEIR GHG impact analysis was conducted consistent with the requirements of CEQA, using methods approved by the BAAQMD. The appellant is erroneous in stating that a quantitative method of analysis is required by law.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
J.3	Nov 2, Patrick Sullivan and John Henkelman (Exhibit 1 to Nov 2 Soluri Meserve)	O-MBA16S6-11	LC GHG-1 Exh D, p. D-256	Greenhouse gases emissions, approach to analysis
J.3	Nov 2, Soluri Meserve, pp. 4-5	O-MBA16S6-3	LC GHG-1 Exh D, p. D-256	Greenhouse gases emissions, approach to analysis

**J.4 Appeal Issue:** The appellant states that the SEIR fails to require all feasible mitigation of the GHG emissions of the project.

**Summary of Appeal Response J.4:** The SEIR GHG emissions impact analysis determined that the project would generate GHG emissions but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing GHGs. Therefore, this impact would be less than significant and no mitigation is required.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
J.4	July 26, Soluri Meserve, pp. 4-6	O-MBA7S2-5	RTC GHG-2 RTC p. 13-14-5	Greenhouse gases emissions, approach to analysis
J.4	Nov 2, Soluri Meserve, pp. 3-6	O-MBA16S6-3	LC GHG-1 Exh D, p. D-256	Greenhouse gases emissions, approach to analysis

**J.5 Appeal Issue:** The SEIR conflates analysis of the Project's design features (Improvement Measures) and mitigation measures, and thus fails to consider whether other possible mitigation measures would be more effective.

**Summary of Appeal Response J.5:** As described in Summary of Appeal Response J.4, the project's GHG emissions impact was determined to be less than significant, and therefore no mitigation is required. The appellant's issue regarding mitigation measures is irrelevant. However, in acknowledgment of the proposed project's designation as an environmental leadership project under AB 900 and its associated requirements, the SEIR includes Improvement Measure



I-C-GG-1, Purchase Voluntary Carbon Credits. As with all improvement measures included in the SEIR, Improvement Measure I-C-GG-1 is included in the MMRP to confirm the project sponsor implements the measure.

**J.6 Appeal Issue:** The Final SEIR fails to respond to comments about the GHG analysis and why it was proper to exclude the office towers from the GHG emissions inventory.

**Summary of Appeal Response J.6:** The appellant has mistakenly conflated the GHG emissions impact analysis for the SEIR with the GHG analysis required under the AB 900 process. The quantification of GHG emissions for AB 900 is separate and independent from the determination of significance required for CEQA. Thus, whether or not the AB 900 GHG emissions quantification included the office towers is immaterial to the determination of CEQA significance. For the purposes of the CEQA analysis, the SEIR analyzes potential GHG emission impacts for the entire project, including the office towers, using the City's Greenhouse Gas Reduction Strategy.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
J.6	Nov 2, Soluri Meserve, pp. 3-6	O-MBA16S6-3	LC GHG-1 Exh D, p. D-256	Greenhouse gases emissions, approach to analysis

## TOPIC K: GEOLOGY AND SOILS

**K.1 Appeal Issue:** Appellant states that the Record contains substantial evidence supporting a fair argument that the Project will result in potentially significant Geology and Soils impacts or, alternatively, supplemental review is required under Public Resources Code section 21166.

**Summary of Appeal Response K.1:** As discussed in Response RTC-GEO-1, FSEIR p. 13.20-8, there is a well-established regulatory framework and permitting process in place, enforced through the San Francisco Department of Building Inspection (DBI) Site Permit process and the San Francisco Building Code, which would require the detailed construction plans for the event center to be designed to current building code requirements for a “public assembly use” occupancy that would withstand seismic and geotechnical hazards as discussed in Impact GE-1 of the Initial Study. The extensive permitting and inspection process also would ensure that the building is constructed in accordance with the approved construction plans. Therefore, the project would not result in significant Geology and Soils impact, and supplemental review is not required. The overall approach to analysis used in the Initial Study has been found to be legally adequate in numerous legal cases as explained in Response RTC-GEO-1.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
K.1	July 26 Soluri Meserve, pp. 13-20	O-MBA7S2-11 O-MBA7S2-12 O-MBA7S2-13 O-MBA7S2-18 O-MBA7S2-20	RTC GEO-1 RTC, p. 13.20-1	Approach to analysis
		O-MBA7S2-20	RTC GEO-6 RTC, p. 13.20-25	Mitigation for corrosive soils
		O-MBA7S2-14	RTC GEO-3 RTC, p. 13.20-19	Mitigation for liquefaction-related hazards
		O-MBA7S2-15	RTC GEO-4 RTC, p. 13.20-21	Foundation system design
		O-MBA7S2-16	RTC GEO-5 RTC, p. 13.20-23	Impacts of pile driving and dewatering
K.1	July 21 Karp, pp. 1-11 (Exhibit C to July 26 Soluri Meserve)	O-MBA7S2-60	RTC GEO-1 RTC, p. 13.20-1	Approach to analysis
K.1	July 20 Cline and Balasek, pp. 1-9 (Exhibit D to July 26 Soluri Meserve) 1-18	O-MBA7S2-68 O-MBA7S2-70 O-MBA7S2-72	RTC GEO-2 RTC, p. 13.20-15	1998 Mission Bay FSEIR analysis
		O-MBA7S2-68 O-MBA7S2-75 O-MBA7S2-78 O-MBA7S2-80 O-MBA7S2-88 O-MBA7S2-90	RTC GEO-3 RTC, p. 13.20-19	Mitigation for liquefaction-related hazards
		O-MBA7S2-76 O-MBA7S2-77 O-MBA7S2-79 O-MBA7S2-84 O-MBA7S2-86	RTC GEO-1 RTC, p. 13.20-1	Approach to analysis
		O-MBA7S2-81 O-MBA7S2-82	RTC GEO-5 RTC, p. 13.20-23	Impacts of pile driving and dewatering
K.1	Nov 2 Cline and Balasek (Exhibit 2 to Nov 2 Soluri Meserve)	O-MBA16S6-12	LC GEO-2 Exh D, p. D-306	Reliance on building code requirements and emergency response
K.1	Nov 2 Soluri Meserve, pp. 9-11	O-MBA16S6-6	LC GEO-1 Exh D, p. D-304	Geology approach to analysis, tiering

**K.2 Appeal Issue:** Appellant states that the SEIR should not rely on the 1998 SEIR analysis of Geology and Soils because the Project is different than the project described in the 1998 FSEIR, the 1998 FSEIR relies on outdated data and methodology to analyze impacts and conditions have changed such that the 1998 FSEIR does not describe the present conditions at the site.

**Summary of Appeal Response K.2:** As discussed in Response RTC-GEO-2 (FSEIR p. 13.20-17) and Impact GE-1 of the Initial Study (pp. 86 and 87), the proposed



project would be constructed in accordance with current San Francisco Building Code requirements, implementing the recommendations of a site-specific geotechnical investigation that would be conducted for the proposed project. This would ensure that geologic and seismic impacts of the project are appropriately addressed. While this approach is consistent with the conclusions of the 1998 Mission Bay FSEIR that geologic and seismic impacts would be less than significant with the then current building code, the approach does not rely on the data and methodology used in the 1998 Mission Bay FSEIR. Compliance with current building code requirements results in construction of a more seismically safe building than one that would have been constructed under previous building code versions.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
K.2	July 26 Soluri Meserve, pp. 13-20	O-MBA7S2-11 O-MBA7S2-12 O-MBA7S2-13 O-MBA7S2-18 O-MBA7S2-20	RTC GEO-1 RTC, p. 13.20-1	Approach to analysis
		O-MBA7S2-20	RTC GEO-6 RTC, p. 13.20-25	Mitigation for corrosive soils
		O-MBA7S2-14	RTC GEO-3 RTC, p. 13.20-19	Mitigation for liquefaction-related hazards
		O-MBA7S2-15	RTC GEO-4 RTC, p. 13.20-21	Foundation system design
		O-MBA7S2-16	RTC GEO-5 RTC, p. 13.20-23	Impacts of pile driving and dewatering
K.2	July 21 Karp, pp. 1-11 (Exhibit C to July 26 Soluri Meserve)	O-MBA7S2-60	RTC GEO-1 RTC, p. 13.20-1	Approach to analysis
K.2	July 20 Cline and Balasek, pp. 1-18 (Exhibit D to July 26 Soluri Meserve)	O-MBA7S2-68 O-MBA7S2-70 O-MBA7S2-72	RTC GEO-2 RTC, p. 13.20-15	1998 Mission Bay FSEIR analysis
		O-MBA7S2-68 O-MBA7S2-75 O-MBA7S2-78 O-MBA7S2-80 O-MBA7S2-88 O-MBA7S2-90	RTC GEO-3 RTC, p. 13.20-19	Mitigation for liquefaction-related hazards
		O-MBA7S2-76 O-MBA7S2-77 O-MBA7S2-79 O-MBA7S2-84 O-MBA7S2-86	RTC GEO-1 RTC, p. 13.20-1	Approach to analysis
		O-MBA7S2-81 O-MBA7S2-82	RTC GEO-5 RTC, p. 13.20-23	Impacts of pile driving and dewatering
K.2	Nov 2 Cline and Balasek, pp. 1-4 (Exhibit 2 to Nov 2 Soluri Meserve)	O-MBA16S6-12	LC GEO-2 Exh D, p. D-306	Reliance on building code requirements and emergency response
K.2	Nov 2 Soluri Meserve, pp. 9-11	O-MBA16S6-6	LC GEO-1 Exh D, p. D-304	Geology approach to analysis, tiering



**K.3 Appeal Issue:** Appellant states that the EIR defers development of mitigation measures necessary to ensure that Geology and Soils impacts are mitigated to less than significant levels.

**Summary of Appeal Response K.3:** The appellant conflates regulatory requirements with mitigation measures. Under CEQA, impacts related to seismic phenomena such as ground shaking and seismically-induced ground failure (including liquefaction, lateral spread, and seismically-induced settlement) would be significant if the project would expose people or structures to potential substantial adverse effects related to these phenomena. Compliance with current building code requirements that are enforceable through DBI's Site Permit process would ensure that people and structures would not be exposed to such adverse effects. Therefore, the requirements of the building code are not mitigation measures, rather they are enforceable and mandatory regulatory requirements that would ensure that significant adverse geologic and seismic impacts are avoided.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
K.3	July 26 Soluri Meserve, pp. 13-20	O-MBA7S2-11 O-MBA7S2-12 O-MBA7S2-13 O-MBA7S2-18 O-MBA7S2-20	RTC GEO-1 RTC, p. 13.20-1	Approach to analysis
		O-MBA7S2-20	RTC GEO-6 RTC, p. 13.20-25	Mitigation for corrosive soils
K.3	July 21 Karp, pp. 1-11 (Exhibit C to July 26 Soluri Meserve)	O-MBA7S2-60	RTC GEO-1 RTC, p. 13.20-1	Approach to analysis
K.3	July 20 Cline and Balasek, pp. 1-18 (Exhibit D to July 26 Soluri Meserve)	O-MBA7S2-68 O-MBA7S2-70 O-MBA7S2-72	RTC GEO-2 RTC, p. 13.20-15	1998 Mission Bay FSEIR analysis
K.3	July 20 Cline and Balasek, pp. 1-18 (Exhibit D to July 26 Soluri Meserve)	O-MBA7S2-68 O-MBA7S2-75 O-MBA7S2-78 O-MBA7S2-80 O-MBA7S2-88 O-MBA7S2-90	RTC GEO-3 RTC, p. 13.20-19	Mitigation for liquefaction-related hazards
K.3	July 20 Cline and Balasek, pp. 1-18 (Exhibit D to July 26 Soluri Meserve)	O-MBA7S2-76 O-MBA7S2-77 O-MBA7S2-79 O-MBA7S2-84 O-MBA7S2-86	RTC GEO-1 RTC, p. 13.20-1	Approach to analysis
K.3	July 20 Cline and Balasek, pp. 1-18 (Exhibit D to July 26 Soluri Meserve)	O-MBA7S2-81 O-MBA7S2-82	RTC GEO-5 RTC, p. 13.20-23	Impacts of pile driving and dewatering



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
K.3	Nov 2 Cline and Balasek, pp. 1-4 (Exhibit 2 to Nov 2 Soluri Meserve)	O-MBA16S6-12	LC GEO-2 Exh D, p. D-306	Reliance on building code requirements and emergency response
K.3	Nov 2 Soluri Meserve, pp. 9-11	O-MBA16S6-6	LC GEO-1 Exh D, p. D-304	Geology approach to analysis, tiering

**K.4 Appeal Issue:** Appellant states that Recirculation is required due to new information presented in the FSEIR and within the Record regarding Geology and Soils impacts.

**Summary of Appeal Response K.4:** The information provided in Section 13.20 of the Responses to Comments document provide clarification and legal precedence supporting the analysis used the analysis of geologic and seismic impacts discussed in Section E.14 of the Initial Study. The responses do not provide new information, and recirculation is not required.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
K.4	July 21 Karp, pp. 1-11 (Exhibit C to July 26 Soluri Meserve) <sup>a</sup>	O-MBA7S2-60	RTC GEO-1 RTC, p. 13.20-1	Approach to analysis
K.4	July 20 Cline and Balasek, pp. 1-18 (Exhibit D to July 26 Soluri Meserve)	O-MBA7S2-68 O-MBA7S2-70 O-MBA7S2-72	RTC GEO-2 RTC, p. 13.20-15	1998 Mission Bay FSEIR analysis
K.4	July 20 Cline and Balasek, pp. 1-18 (Exhibit D to July 26 Soluri Meserve)	O-MBA7S2-68 O-MBA7S2-75 O-MBA7S2-78 O-MBA7S2-80 O-MBA7S2-88 O-MBA7S2-90	RTC GEO-3 RTC, p. 13.20-19	Mitigation for liquefaction-related hazards
K.4	July 20 Cline and Balasek, pp. 1-18 (Exhibit D to July 26 Soluri Meserve)	O-MBA7S2-76 O-MBA7S2-77 O-MBA7S2-79 O-MBA7S2-84 O-MBA7S2-86	RTC GEO-1 RTC, p. 13.20-1	Approach to analysis
K.4	July 20 Cline and Balasek, pp. 1-18 (Exhibit D to July 26 Soluri Meserve)	O-MBA7S2-81 O-MBA7S2-82	RTC GEO-5 RTC, p. 13.20-23	Impacts of pile driving and dewatering

<sup>a</sup> In the appeal letter, the Appellant mistakenly references a July 22, 2015 letter from Lawrence Karp. However, the Appellant is actually referring to a Lawrence Karp letter dated July 21, 2015 (coded in this appeal response as O-MBA7S2). The correct date of the letter is presented in the table, above.



**K.5 Appeal Issue:** The FSEIR fails to adequately respond in good faith to comments about Geology and Soils analysis.

**Summary of Appeal Response K.5:** Section 13.20 of the Responses to Comments document includes extensive responses to each and every comment received on Section E.4 of the Initial Study, Geology and Soils, and provides legal precedence for the approach to analysis used in the Initial Study. Comments received since certification of the SEIR are addressed in Exhibit D of this document.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
K.5	Nov 2 Cline and Balasek, pp. 1-4 (Exhibit 2 to Nov 2 Soluri Meserve)	O-MBA16S6-12	LC GEO-2 Exh D, p. D-306	Reliance on building code requirements and emergency response

## TOPIC L: HAZARDS AND HAZARDOUS MATERIALS

**L.1 Appeal Issue:** The Record contains substantial evidence supporting a fair argument that the Project will result in potentially significant Hazards and Hazardous Materials impacts or, alternatively, supplemental review is required under Public Resources Code section 21166.

**Summary of Appeal Response L.1:** As discussed in Responses RTC-HAZ-1, under CEQA, construction activities and locating new uses on a site that is included on a list of hazardous materials sites (such as the propose project site) could result in a significant impact if these actions create a significant hazard to the public or the environment. Implementation of the 1999 RMP prepared in accordance with the 1998 Mission Bay FSEIR, and associated implementation of Article 22A of the San Francisco Public Health Code, compliance with which is incorporated in the RMP, with oversight by the San Francisco Department of Public Health and the San Francisco Bay Regional Water Quality Control Board, ensures that construction and operation of the project would not result in significant impacts to the public or the environment. Implementation of the RMP is enforced through the Covenant and Environmental Restrictions recorded in the deed for the project site, as well as the deeds of all Mission Bay sites. Impact HAZ-2 of the Final SEIR appropriately concludes that impacts associated with exposure to hazardous materials in the soil and groundwater would be less than significant. Response RTC-HAZ-3 describes the results of subsequent investigations and planning that have been conducted in accordance with the 1999 RMP and Article 22A.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
L.1	July 26 Soluri Meserve, pp. 7-20	O-MBA7S2-6 O-MBA7S2-9 O-MBA7S2-10	RTC HAZ-1 RTC, p. 13.22-1	Reliance on 1998 Mission Bay FSEIR and 1999 RMP
		O-MBA7S2-7	RTC HAZ-2 RTC, p. 13.22-12	Contaminants addressed by cleanup order
		O-MBA7S2-8 O-MBA7S2-9	RTC HAZ-3 RTC, p. 13.22-15	Soil contamination and transport of hazardous wastes
		O-MBA7S2-10	RTC HAZ-4 RTC, p. 13.22-29	Reliance on regulatory standards for naturally-occurring asbestos
		O-MBA7S2-21	RTC HAZ-8 RTC, p. 13.22-35	Emergency evacuation
L.1	Nov 2 Soluri Meserve, pp. 11-14	O-MBA16S6-7	LC HAZ-2 Exh D, p. D-343	Naturally-occurring asbestos
		O-MBA16S6-8	LC HAZ-1 Exh D, p. D-336	Assessment of hazardous materials impacts
L.1	July 22 Cline, pp 1-15 (Exhibit B to July 26 Soluri Meserve)	O-MBA7S2-42 O-MBA7S2-44 O-MBA7S2-45 O-MBA7S2-46 O-MBA7S2-50 O-MBA7S2-51	RTC HAZ-1 RTC, p. 13.22-1	Reliance on 1998 FSEIR
L.1	July 22 Cline, pp 1-15 (Exhibit B to July 26 Soluri Meserve)	O-MBA7S2-47 O-MBA7S2-49 O-MBA7S2-52 O-MBA7S2-55 O-MBA7S2-57 O-MBA7S2-58 O-MBA7S2-59	RTC HAZ-3 RTC, p. 13.22-15	Site contamination
		O-MBA7S2-53 O-MBA7S2-54 O-MBA7S2-55	RTC HAZ-4 RTC, p. 13.22-29	Naturally occurring asbestos
		O-MBA7S2-43	RTC HAZ-5 RTC, p. 13.22-32	Reuse of excavated soil
		O-MBA7S2-48	RTC HAZ-6 RTC, p. 13.22-33	Disposal of treated wood
		O-MBA7S2-56	RTC HAZ-7 RTC, p. 13.22-34	Lead agency for school evaluations
L.1	Oct 20 Soluri Meserve	O-MBA15S5-1	LC HAZ-1 Exh D, p. D-336	Assessment of hazardous materials impacts – screening levels

**L.2 Appeal Issue:** Appellant states that the SEIR should not rely on the 1998 SEIR analysis of Hazards and Hazardous Materials because the Project is different than the project described in the 1998 FSEIR, the 1998 FSEIR relies on outdated data and methodology



to analyze impacts, and conditions have changed such that the 1998 FSEIR does not describe the present contamination at the site.

**Summary of Appeal Response L.2:** Implementation of the 1999 RMP prepared in accordance with the 1998 Mission Bay FSEIR, and associated implementation of Article 22A of the San Francisco Public Health Code, with oversight by the San Francisco Department of Public Health and the San Francisco Bay Regional Water Quality Control Board, ensures that construction and operation of the project would not result in significant impacts to the public or the environment. The RMP anticipates a wide variety of projects, and includes construction and operational measures that must be incorporated into every project to ensure that the public and environment are not adversely affected by hazardous materials in the soil and groundwater within Mission Bay. Impact HAZ-2 of the Initial Study appropriately concludes that impacts associated to exposure to hazardous materials in the soil and groundwater would be less than significant. The RTC document describes the results of subsequent investigations and planning that have been conducted in accordance with the 1999 RMP and Article 22A and include measures specific to the project's construction activities and design.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
L.2	July 26 Soluri Meserve, pp. 7-13	O-MBA7S2-6 O-MBA7S2-9 O-MBA7S2-10	RTC HAZ-1 RTC, p. 13.22-1	Reliance on 1998 Mission Bay FSEIR and 1999 RMP
		O-MBA7S2-7	RTC HAZ-2 RTC, p. 13.22-12	Contaminants addressed by cleanup order
		O-MBA7S2-8 O-MBA7S2-9	RTC HAZ-3 RTC, p. 13.22-15	Soil contamination and transport of hazardous wastes
		O-MBA7S2-10	RTC HAZ-4 RTC, p. 13.22-29	Reliance on regulatory standards for naturally-occurring asbestos
L.2	July 22 Cline, pp 1-15 (Exhibit B to July 26 Soluri Meserve)	O-MBA7S2-42 O-MBA7S2-44 O-MBA7S2-45 O-MBA7S2-46 O-MBA7S2-50 O-MBA7S2-51	RTC HAZ-1 RTC, p. 13.22-1	Reliance on 1998 FSEIR
		O-MBA7S2-47 O-MBA7S2-49 O-MBA7S2-52 O-MBA7S2-55 O-MBA7S2-57 O-MBA7S2-58 O-MBA7S2-59	RTC HAZ-3 RTC, p. 13.22-15	Site contamination and transport of hazardous waste
		O-MBA7S2-53 O-MBA7S2-54 O-MBA7S2-55	RTC HAZ-4 RTC, p. 13.22-29	Naturally occurring asbestos



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
L.2 (cont.)	July 22 Cline, pp 1-15 (Exhibit B to July 26 Soluri Meserve)	O-MBA7S2-43	RTC HAZ-5 RTC, p. 13.22-32	Reuse of excavated soil
		O-MBA7S2-48	RTC HAZ-6 RTC, p. 13.22-33	Disposal of treated wood
		O-MBA7S2-56	RTC HAZ-7 RTC, p. 13.22-34	Lead agency for school evaluations
L.2	Oct 20 Soluri Meserve	O-MBA15S5-1	LC HAZ-1 Exh D, p. D-336	Assessment of hazardous materials impacts – screening levels
L.2	Oct 20 Damian Applied Technology	O-MBA15S5-1	LC HAZ-1 Exh D, p. D-336	Assessment of hazardous materials impacts – screening levels

**L.3 Appeal Issue:** Appellant states that significant new information since the certification of the 1998 SEIR requires analysis of Hazards and Hazardous Materials impacts from risks of exposure.

**Summary of Appeal Response L.3:** OCII acknowledges that the environmental screening levels have been updated since preparation of the 1999 RMP for the Mission Bay Plan Area. However, the comment letter conflates this screening level information with the CEQA analysis of potentially significant hazards and hazardous materials impacts. None of the information presented by the commenter, including the updated environmental screening levels, affects the conclusions reached in the Final SEIR regarding hazards and hazardous materials impacts.

The public would not be exposed to hazardous materials in the soil during construction because the project sponsor would implement a dust monitoring plan in accordance with Articles 22A and 22B of the San Francisco Public Health Code and a stormwater pollution prevention plan in accordance with the Construction General Stormwater Permit issued by the State Water Resources Control Board. Implementation of these requirements would ensure that hazardous materials in the soil are not transported off-site via wind or stormwater runoff and would be protective of the public. Workers would be protected with implementation of the site-specific health and safety plan required by Article 22A as well as state and federal health and safety regulations.

Once the project is constructed, site occupants, commercial workers, and visitors, as well as adjacent property owners, visitors and residents, would not be exposed to chemicals in the soil or groundwater, therefore no health risk would occur. Site excavation would remove soil to a minimum depth of 12 feet as part of the site development, and clean engineered backfill would be used where needed. The



site would be occupied by buildings or paved, and none of the existing soil on the site would be exposed at grade. All landscaped areas on the site would be above structures, and clean soil would be brought in for all landscaped areas on the project site. Groundwater would not be used for any purposes.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
L.3	July 26 Soluri Meserve, pp. 7-13	O-MBA7S2-6 O-MBA7S2-9 O-MBA7S2-10	RTC HAZ-1 RTC, p. 13.22-1	Reliance on 1998 Mission Bay FSEIR and 1999 RMP
		O-MBA7S2-7	RTC HAZ-2 RTC, p. 13.22-12	Contaminants addressed by cleanup order
		O-MBA7S2-8 O-MBA7S2-9	RTC HAZ-3 RTC, p. 13.22-15	Soil contamination and transport of hazardous wastes
		O-MBA7S2-10	RTC HAZ-4 RTC, p. 13.22-29	Reliance on regulatory standards for naturally-occurring asbestos
L.3	Nov 2 Soluri Meserve, pp. 11-14	O-MBA16S6-7	LC HAZ-2 Exh D, p. D-343	Naturally-occurring asbestos
		O-MBA16S6-8	LC HAZ-1 Exh D, p. D-336	Assessment of hazardous materials impacts
L.3	July 22 Cline, pp 1-15 (Exhibit B to July 26 Soluri Meserve)	O-MBA7S2-42 O-MBA7S2-44 O-MBA7S2-45 O-MBA7S2-46 O-MBA7S2-50 O-MBA7S2-51	RTC HAZ-1 RTC, p. 13.22-1	Reliance on 1998 FSEIR
		O-MBA7S2-47 O-MBA7S2-49 O-MBA7S2-52 O-MBA7S2-55 O-MBA7S2-57 O-MBA7S2-58 O-MBA7S2-59	RTC HAZ-3 RTC, p. 13.22-15	Site contamination
		O-MBA7S2-53 O-MBA7S2-54 O-MBA7S2-55	RTC HAZ-4 RTC, p. 13.22-29	Naturally occurring asbestos
		O-MBA7S2-43	RTC HAZ-5 RTC, p. 13.22-32	Reuse of excavated soil
		O-MBA7S2-48	RTC HAZ-6 RTC, p. 13.22-33	Disposal of treated wood
		O-MBA7S2-56	RTC HAZ-7 RTC, p. 13.22-34	Lead agency for school evaluations
L.3	Oct 20 Soluri Meserve	O-MBA15S5-1	LC HAZ-1 Exh D, p. D-336	Assessment of hazardous materials impacts – screening levels
L.3	Oct 20 Damian Applied Technology	O-MBA15S5-1	LC HAZ-1 Exh D, p. D-336	Assessment of hazardous materials impacts – screening levels



**L.4 Appeal Response:** Appellant states that recirculation of the FSEIR was required due to new information regarding substantially more severe and/or significant impacts associated with the presence of asbestos on the Project site. (FSEIR, Vol. 5, p. 13-22 to 13-29.)

**Summary of Appeal Response L.4:** The Appellant inaccurately states that the SEIR did not acknowledge the presence of naturally occurring asbestos on-site and only prepared an Asbestos Dust Monitoring Plan in response to actions taken by the Bay Area Air Quality Management District (BAAQMD). Impacts associated with the potential presence of naturally-occurring asbestos in soil at the project site are addressed in the Final SEIR. This analysis acknowledges that the preliminary geotechnical investigation for the site identified cobble to boulder-sized pieces of serpentinite, a rock type known to contain naturally-occurring asbestos, in the artificial fill and concluded that impacts related to exposure to asbestos in the soil could be significant. Mitigation Measure M-HZ-1b requires the project sponsor to prepare an Asbestos Dust Monitoring Plan in accordance with the Asbestos Air Toxics Control Measure Implemented by the Bay Area Air Quality Management District. The project sponsor has subsequently prepared an Asbestos Dust Monitoring Plan in accordance with this mitigation measure.

The San Francisco Department of Public Health has contacted the BAAQMD regarding the soil sampling referred to in one of the appellant's comments and found that the soil sampled was stockpiled on Block 1, and not on the project site. The Mission Bay Development Company is conducting an infrastructure project on that site, and the RWQCB has required the developer to prepare an asbestos management plan to assure proper management of the soil. This work is not related to the proposed project and the events described do not alter the need for the project to comply with the Asbestos ATCM, as this is already being conducted by the project sponsor as part of implementation of Mitigation Measure M-HZ-1b.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
L.4	July 26 Soluri Meserve, p.13	O-MBA7S2-10	RTC HAZ-1 RTC, p. 13.22-1	Reliance on 1998 Mission Bay FSEIR and 1999 RMP
		O-MBA7S2-10	RTC HAZ-4 RTC, p. 13.22-29	Reliance on regulatory standards for naturally-occurring asbestos
L.4	July 22 Cline, pp. 4-6 (Exhibit B to July 26 Soluri Meserve)	O-MBA7S2-46 O-MBA7S2-50 O-MBA7S2-51	RTC HAZ-1 RTC, p. 13.22-1	Reliance on 1998 FSEIR
		O-MBA7S2-47 O-MBA7S2-49 O-MBA7S2-52 O-MBA7S2-55 O-MBA7S2-57	RTC HAZ-3 RTC, p. 13.22-15	Site contamination and transport of hazardous waste



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
L.4 (cont.)	July 22 Cline, pp. 4-6 (Exhibit B to July 26 Soluri Meserve)	O-MBA7S2-53 O-MBA7S2-54 O-MBA7S2-55	RTC HAZ-4 RTC, p. 13.22-29	Naturally occurring asbestos
		O-MBA7S2-48	RTC HAZ-6 RTC, p. 13.22-33	Disposal of treated wood
		O-MBA7S2-56	RTC HAZ-7 RTC, p. 13.22-34	Lead agency for school evaluations
L.4	Nov 2 Soluri Meserve, p.12; Exhibit 3, to Nov 2 Soluri Meserve, p. 3	O-MBA16S6-7	LC HAZ-2 Exh D, p. D-343	Naturally-occurring asbestos

**L.5 Appeal Response:** Appellant states that the Final SEIR fails to adequately respond in good faith to comments about the Hazards and Hazardous Materials analysis.

**Summary of Appeal Response L.5:** The RTC document includes extensive responses to each and every comment received on issues related hazards and hazardous materials, and provides legal precedence for the approach to analysis used in the Final SEIR.

## TOPIC M: URBAN DECAY

**M.1 Appeal Issue:** The SEIR fails to adequately analyze the potentially significant impacts of urban decay in Oakland.

**Summary of Appeal Response M.1:** Urban decay is not an explicit CEQA topic identified in CEQA Guidelines Appendix G. Further, economic impacts are not required be analyzed in a CEQA document unless they have the reasonably foreseeable indirect effect of leading to physical changes in the environment, such as urban decay, which is not the case here, as explained in the RTC document. Thus, under CEQA, the SEIR is not required to include an analysis of urban decay. Nevertheless, the RTC document includes a detailed review and response of the concerns submitted by the appellant regarding urban decay.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
M.1	July 26, Soluri Meserve	O-MBA7S2-37 O-MBA7S2-39	RTC GEN-4 RTC p. 13.2-18	Urban Decay
M.1	July 13, Philip King	O-MBA7S2-91	RTC GEN-4 RTC p. 13.2-18	Urban Decay
M.1	Nov 2, Soluri Meserve, p. 14	O-MBA16S6-9	LC GEN-3 Exh D p. D-60	Urban Decay



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
M.1	Nov 2, Philip King	O-MBA16S6-14	LC GEN-3 Exh D p. D-60	Urban Decay

**M.2 Appeal Issue:** The FSEIR fails to provide a good faith response to comments on the issue of urban decay.

**Summary of Appeal Response M.2:** Even though the subject of urban decay is not required to be analyzed in the SEIR under CEQA, the RTC document includes a detailed review and response of the concerns submitted by the appellant regarding urban decay. The response is summarized in Response GEN-4 in Section 13.2.5 of the RTC document, and is supplemented by a report by ALH Urban & Regional Economics provided in Appendix UD. This represents a comprehensive response to the appellant's issues on urban decay.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
M.2	Nov 2, Soluri Meserve, p. 14	O-MBA16S6-9	LC GEN-3 Exh D p. D-60	Urban Decay
M.2	Nov 2, Philip King	O-MBA16S6-14	LC GEN-3 Exh D p. D-60	Urban Decay

**M.3 Appeal Issue:** The analysis of urban decay contained in the Final SEIR requires recirculation.

**Summary of Appeal Response M.3:** As described in Appeal Response M.1 above, under CEQA, the SEIR is not required to include an analysis of urban decay, and the discussion of urban decay in the Final SEIR is not cause for recirculation.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
M.3	Nov 2, Soluri Meserve, p. 14	O-MBA16S6-9	LC GEN-3 Exh D p. D-60	Urban Decay



**TOPIC N: WIND**

- N.1 Appeal Issue:** The SEIR fails analyze and disclose significant wind impacts to open space within the project site.
- N.2 Appeal Issue:** The SEIR fails to adequately respond in good faith to comments about the wind analyses
- N.3 Appeal Issue:** Recirculation of the FSEIR is required because the FSEIR disclosed a new significant wind impact.

**Summary of Appeal Responses N.1, N.2 and N.3:** Pursuant to Mission Bay FSEIR Mitigation Measure D.7 (and the South Design for Development *Wind Analysis* standards), wind tunnel testing and analysis were conducted for the proposed project in this FSEIR. Consistent with the determination made in the Mission Bay FSEIR, the use of City Planning Code Section 148's wind hazard standards are an appropriate criteria for the analysis of the proposed project. Pursuant to the significance threshold used in the FSEIR, the FSEIR appropriately analyzes project wind hazard effects at off-site public areas. The FSEIR conservatively determined that wind hazard impacts at off-site public areas were potentially significant, and identified that implementation of FSEIR Mitigation Measure M-WS-1 would effectively mitigate the project off-site wind hazard to a less than significant level. In addition, the FSEIR determined that under cumulative-plus-project conditions, wind hazard impacts at off-site public areas would be less than significant.

While the project includes privately-owned publically-accessible open space areas within the project site, potential wind hazard effects on on-site publically accessible open space are not considered a significant environmental impact on the environment, and therefore, mitigation is not required for these effects.

Consequently, all potential wind hazard effects are adequately disclosed in the FSEIR, and no new issues have been raised by the commenter that would trigger recirculation of the FSEIR.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
N.1	July 26 Soluri Meserve, pp. 29-30	O-MBA7S2-32	RTC WS-1 RTC, p. 13.15-1	Analysis of Wind Impacts on Open Space within Project Site
N.1	Nov 2 Soluri Meserve, pp 6-8	O-MBA16S6-4	LC WS-1 Exh D, p. D-263	Analysis of Wind Impacts on Open Space within Project Site
N.2	Nov 2 Soluri Meserve, pp 6-8	O-MBA16S6-4	LC WS-1 Exh D, p. D-263	Adequacy of Responses to Comments on Wind Analyses
N.3	Nov 2 Soluri Meserve, pp 6-8	O-MBA16S6-4	LC WS-1 Exh D, p. D-263	Recirculation because FSEIR disclosed a new significant wind impact



## TOPIC O: RECREATION

- O.1 Appeal Issue:** A fair argument exists that the Project will accelerate substantial deterioration of Bayfront Park thereby requiring analysis in the SEIR.
- O.2 Appeal Issue:** Even if consistent with the 1998 Mission Bay FSEIR, the proposed project represents a major revision that will result in significantly more impact to deterioration of Bayfront Park than previously analyzed in 1998.
- O.5 Appeal Issue:** The FSEIR failed to adequately respond in good faith to comments about the Project's impacts to recreational facilities.

**Summary of Appeal Responses O.1, O.2 and O.5:** The FSEIR acknowledges that development of the proposed project would increase demand for recreational facilities. Such demand would be generally consistent with that described in the 1998 Mission Bay FSEIR for the entire Plan area and would be readily met by planned parks and open space areas developed as part of the Mission Bay Plan, as well as by existing facilities in the project vicinity. Given the availability of existing recreational facilities in the project vicinity and region and the ability of these facilities to accommodate large crowds combined with the inclusion of on-site publically accessible open space proposed by the project that would directly serve the project's demand for recreational facilities, the increased use of existing recreation facilities would not result in substantial physical deterioration of these resources, or otherwise result in physical degradation of existing recreational resources. The proposed project's impacts on recreational resources were determined to be less than significant, and no mitigation is required. Furthermore, the project would not result in any new or substantially more severe impacts than those previously identified in the 1998 Mission Bay FSEIR.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
O.1	July 26 Soluri Meserve, pp. 25-27	O-MBA7S2-30	RTC REC-1 RTC, p. 13.16-2	Bayfront Park
O.1	Nov 2 Soluri Meserve, pp. 8-9	O-MBA16S6-4	LC REC-1 Exh D, p. D-268	Bayfront Park
O.2	July 26 Soluri Meserve, pp. 25-27	O-MBA7S2-30	RTC REC-1 RTC, p. 13.16-2	Bayfront Park
O.2	Nov 2 Soluri Meserve, pp. 8-9	O-MBA16S6-4	LC REC-1 Exh D, p. D-268	Bayfront Park
O.5	Nov 2 Soluri Meserve, pp. 8-9	O-MBA16S6-4	LC REC-1 Exh D, p. D-268	Bayfront Park



**O.3 Appeal Issue:** The FSEIR fails as an informational document regarding impacts to recreation because it improperly excludes analysis of environmental impacts associated with development of Bayfront Park.

**O.4 Appeal Issue:** Even if construction of Bayfront Park was previously analyzed at a programmatic level in the 1998 SEIR, new information and changed circumstances results in a new and more severe significant impacts related to hazardous material exposure to residents of Bayfront Park than previously analyzed in 1998 and require analysis in a recirculated SEIR.

**Summary of Appeal Responses O.3 and O.4:** As discussed in the FSEIR, while the Bayfront Park public access improvements on P22 are triggered by development on Block 29-32 according the Mission Bay Plan, Bayfront Park is not part of the project and therefore does not need to be analyzed in the SEIR for the proposed project. Bayfront Park was planned as part of the Mission Bay Plan and analyzed in the 1998 Mission Bay FSEIR and will be implemented by the master developer, FOCIL-MB, LLC. Environmental review for the park has already been completed as part of the Mission Bay Plan and is already required to be constructed as a result of prior approval actions. Further, the project and Bayfront Park each have independent purposes, can be implemented independently, and have different project sponsors.

With respect to potential hazardous materials, implementation of the RMP and the legally required Article 22A of the San Francisco Health Code (as specified in the RMP) would ensure that the public would not be exposed to potential hazardous materials in the soil during construction and subsequent use of all sites within the Mission Bay Plan area, including Bayfront Park. With implementation of these requirements, Bayfront Park users would not be exposed to unacceptable levels of hazardous materials, and use of the park would not result in significant environmental impacts related to exposure to hazardous materials.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
O.3	July 26 Soluri Meserve, pp. 25-27	O-MBA7S2-30	RTC REC-1 RTC, p. 13.16-2 RTC HAZ-9 RTC, p. 13.22-37	Bayfront Park  Bayfront Park
O.3	Nov 2 Soluri Meserve, pp. 8-9	O-MBA16S6-4	LC REC-1 Exh D, p. D-268	Bayfront Park
O.4	July 26 Soluri Meserve, pp. 25-27	O-MBA7S2-30	RTC HAZ-9 RTC, p. 13.22-37	Bayfront Park
O.4	Nov 2 Soluri Meserve, pp. 8-9	O-MBA16S6-4	LC REC-1 Exh D, p. D-268	Bayfront Park



## TOPIC P: UTILITIES

**P.1 Appeal Response:** Appellant states that the FSEIR is not an adequate informational document regarding water supply infrastructure because it defers analysis of the impacts associated with constructing water supply infrastructure.

**Summary of Appeal Response P.1:** As discussed in Response RTC-UTIL-1 of the Responses to Comment document, water mains serving the project site have already been installed by the master developer under the Mission Bay Redevelopment Plan. Although OCII does not anticipate that water conveyance facility upgrades will be needed, the Initial Study discloses that, if required, “[t]he construction of new water mains and appurtenances would require excavation, trenching, soil movement, and other activities typical of construction of development projects in San Francisco, and similar to those activities analyzed in the Mission Bay FSEIR for the various infrastructure improvements.” Therefore, the Initial Study and Draft SEIR conclude that impacts of any improvements to the water conveyance system for the proposed project have been adequately disclosed in the 1998 Mission Bay FSEIR.

The current drought is not a changed circumstance for purposes of the water supply assessment prepared for the project because the SFPUC’s water supply planning that takes into account an 8.5-year design drought, consisting of the 1987-92 drought, the 1976-77 drought and another 18 months of hypothetical drought – a more conservative drought estimate than is on record since the SFPUC’s current water system was constructed in the early 1900s.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
P.1	July 26 Soluri Meserve, pp. 20-23	O-MBA752-24	RTC UTIL-1 RTC, p. 13.17-1	Water supply conveyance system

**P.2 Appeal Issue:** Appellant states that the FSEIR may not rely on the 1998 SEIR regarding analysis of water supply infrastructure because new information and/or changed circumstances results in new and more severe significant impacts associated with constructing these facilities that were not previously disclosed.

**Summary of Appeal Response P.2:** As discussed in Response RTC-UTIL-1 of the Responses to Comment document, the entitled water demand for Blocks 29-32 under the Mission Bay Plan is 0.15 mgd. As discussed in Impact UT-1 of the Initial Study (p. 66), the total estimated water demand for the proposed project would be 0.1 mgd, based on compliance with current building code requirements, which require more water conservation measures than previous code versions. This estimated demand is 0.05 mgd less than the entitled demand under the Mission Bay Plan.



Water mains serving the project site have already been installed by the master developer under the Mission Bay Redevelopment Plan, and are sized to accommodate the entitled water demand along with estimated fire flow demands in accordance with the Mission Bay Infrastructure Plan. Although OCII does not anticipate that water conveyance facility upgrades will be needed, the Initial Study discloses that, if required, “[t]he construction of new water mains and appurtenances would require excavation, trenching, soil movement, and other activities typical of construction of development projects in San Francisco, and similar to those activities analyzed in the Mission Bay FSEIR for the various infrastructure improvements.” Therefore, the Initial Study and Draft SEIR conclude that impacts of any improvements to the water conveyance system for the proposed project have been adequately disclosed in the 1998 Mission Bay FSEIR.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
P.2	July 26 Soluri Meserve, pp. 20-22	O-MBA7S2-24	RTC UTIL-1 RTC, p. 13.17-1	Water supply conveyance system

**P.3 Appeal Issue:** Appellant states that new information and/or changed circumstances prohibit the SEIR from relying on the Water Supply Assessment prepared for another project in 2013.

**Summary of Appeal Response P.3:** As discussed in Response RTC-UTIL-2 of the Responses to Comments document, the proposed project’s water demand is less than the demand approved by the SFPUC in the Water Supply Assessment for the project as it was previously proposed at Piers 30-32 and Seawall Lot 330. The project’s water demand is also less than the 0.15 mgd entitled demand for Blocks 29-32 estimated in the 1998 Mission Bay FSEIR.

The SFPUC has determined that an additional Water Supply Assessment is not necessary for the proposed project due to its relocation to Mission Bay because the following factors listed in Water Code Section 10910(h) that warrant preparation of another Water Supply Assessment do not exist:

- There are no changes to the project that result in a substantial increase in water demand.
- There has been no change in the circumstances or conditions which would substantially affect the ability of the SFPUC to provide a sufficient supply of water for the proposed project.
- There is no new information that might affect the conclusions of the previous Water Supply Assessment that sufficient water supplies are available.



Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
P.3	July 26 Soluri Meserve, pp. 20-22	O-MBA7S2-23 O-MBA7S2-25	RTC UTIL-2 RTC, p. 13.17-4	Water supply – water supply assessment

**P.4 Appeal Issue:** The FSEIR fails as an informational document with respect to its discussion of stormwater treatment facilities and the Project's impact.

**Summary of Appeal Response P.4:** The project site would be served by the Mission Bay South storm drain infrastructure, as constructed and operated by the master developer in accordance with the approved Mission Bay South Infrastructure Plan. The stormwater analysis completed for the proposed project, discussed in Impact C-UT-3 of the SEIR, p. 5.17-18, concluded that the capacity of the separated stormwater system as built is adequate to serve the project as well as other development projects that would be constructed at full build out of the Mission Bay South area. The project, either individually or cumulatively, would not require the construction of new stormwater drainage facilities or expansion of the existing facilities.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
P.4	July 26 Soluri Meserve, pp. 22-24	O-MBA7S2-26	RTC UTIL-7 RTC, p. 13.17-20	Stormwater system – impact analysis
P.4	July 26 Soluri Meserve, pp. 22-24	O-MBA7S2-27	RTC UTIL-8 RTC, p. 13.17-21	Sizing of stormwater system

**P.5 Appeal Issue:** Appellant states that the FSEIR fails as an informational document by not including a detailed statement of the project's energy demand in the DSEIR that was circulate for public review. The information contained in the FSEIR RTC constitutes new information that requires recirculation.

**Summary of Appeal Response P.5:** The discussion of energy impacts provided in the Initial Study (See Initial Study, pp. 122 to 126) complies with CEQA Guidelines Appendix F. The information in the RTC document provides a more detailed analysis to support the conclusions of the Initial Study and does not constitute significant new information requiring recirculation.



## TOPIC Q: LAND USE

**Q.1 Appeal Issue:** The Draft SEIR fails to address and the RTC document fails to adequately respond to comments regarding the inconsistency of the Warriors Arena Project with the primary and secondary uses encompassed in and allowed by the Mission Bay South Redevelopment Plan. The OCII findings on land use consistencies are not supported by substantial evidence.

**Summary of Appeal Response Q.1:** As demonstrated in OCII’s secondary use findings, a number of uses of the event center qualify as principal uses. Principal uses include office use, retail sales and services, restaurants, arts activities, art spaces, and outdoor activity areas. In addition to these principal uses, OCII’s secondary use findings demonstrate that the event center qualifies as a secondary use under four separate secondary uses authorized within the “Commercial Industrial / Retail” land use district: nighttime entertainment, recreation building, public structure, and a use of a nonindustrial character. Furthermore, no appeal is available from OCII’s approval of Resolution No. 70-2015 adopting CEQA findings, including adopting a mitigation monitoring and reporting program and a statement of overriding considerations. (Letter, T. Bohee to T. Lippe, at p. 2 (Nov. 20, 2015).) While no appeal is available from OCII’s approval of Resolution Nos. 70-2015, if the Board — in response to the Certification Appeal — reverses OCII’s certification of the SEIR, then “prior project approvals would be rescinded to allow CCII [OCII Commission] to, if and as necessary, adopt additional findings, revise the F[S]EIR, or amend the project approvals.” (*Ibid.*)

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
Q.1	July 26 Brandt-Hawley Law Group, pp. 2-4	O-MBA6B1-5  O-MBA6B1-6	RTC LU-2 RTC, p. 13.8-9 RTC PD-1 RTC, p. 13.5-4	Land use plan consistency  Mission Bay Redevelopment Plan, South Plan Area development controls
Q.1	Nov 2 Brandt-Hawley Law Group, pp 1-4	O-MBA19B3-1	LC PP-1 Exh D, p. D-121	Secondary Uses under the Mission Bay South Redevelopment Plan
Q.1	Nov 3 FSEIR Certification Hearing	PH2-Lippe-1 PH2-Lippe-5 PH2-Hawley-1	LC PP-1 Exh D, p. D-121	Secondary Uses under the Mission Bay South Redevelopment Plan

**Q.2 Appeal Issue:** The Draft SEIR fails to address and the RTC document fails to adequately respond to comments regarding the inconsistency of the Warriors Arena Project with land use policies established by the Mission Bay South Redevelopment Plan and the Design for Development.



**Summary of Appeal Response Q.2:** The Draft SEIR (as provided in the Initial Study) and the FSEIR Responses to Comment document demonstrate the project is consistent with the Mission Bay South Redevelopment Plan and the Design for Development. (See, e.g., RTC, pp. 13.5-4 – 13.5-10.) The final determination of consistency was made by OCII’s Executive Director and the OCII Commission in adopting the secondary use findings and OCII’s CEQA findings, respectively. While the SEIR includes a detailed discussion of consistency with the Plan, it should be noted that CEQA only requires an EIR to include a discussion of an applicable plan if a project is inconsistent with the plan; it does not require a discussion of reasons a “project is consistent with the relevant plans.” (*City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 918-19; CEQA Guidelines, § 15125, subd. (d); see also *Pfeiffer v. City of Sunnyvale City Council* (2011) 200 Cal.App.4th 1552, 1566.)

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
Q.2	July 26 Brandt-Hawley Law Group, pp. 4	O-MBA6B1-7	RTC PP-1 RTC, p. 13.6-3	Design for Development for the Mission Bay South Project

**Q.3 Appeal Issue:** The Draft SEIR fails to address and the RTC document fails to adequately respond to comments regarding the inadequacy of the EIR’s analysis of changing the land use planned for the Mission Bay South area by changing the planned community character as a biotechnology and medical hub with the Event Center.

**Summary of Appeal Response Q.3:** The Mission Bay South Redevelopment Plan does not envision buildout of the Plan Area solely as a biotechnology and medical hub; the Plan envisions Mission Bay South as a “vibrant urban community in Mission Bay South which incorporates a variety of uses including medical research, office, business services, retail, entertainment, hotel, light industrial, education, utility, housing, recreation and open space, and community facilities.” (Plan, § 104(A).) The Final SEIR explained that the proposed event center would increase the intensity of the site’s use and would thus alter the land use character of the project site from that analyzed in the 1998 Mission Bay FSEIR, and the presence of event center-associated spectators in the surrounding Mission Bay neighborhood would be noticeable compared to existing conditions. However, the Final SEIR also explained that the proposed project would not hinder operation of those existing uses such that adverse land use impacts may occur. The Final SEIR acknowledged other changes in land use conditions that have occurred since preparation of the 1998 Mission Bay FSEIR, but concluded that the operation of office, entertainment and retail uses at the project site would not conflict with the changed land use character. On the basis of these factors, the FSEIR determined the project would not have any new or



substantially more severe effects than those identified in the Mission Bay FSEIR relating to the existing character of the vicinity.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
Q.3	July 26 Brandt-Hawley Law Group, pp. 7	O-MBA6B1-10	RTC LU-1 RTC, p. 13.8-1	Land use character and compatibility

## TOPIC R: CULTURAL RESOURCES

**R.1 Appeal Issue:** The Draft SEIR fails to adequately address and the RTC document fails to adequately respond to comments regarding the inadequacy of the SEIR's project specific analysis and mitigation of cultural resources, and failure to provide an updated investigation of resources as part of the environmental setting.

**Summary of Appeal Response R.1:** The FSEIR sufficiently addressed potential impacts to archaeological resources by summarizing relevant analyses conducted as part of the program-level Mission Bay FEIR and 1998 Mission Bay FSEIR, addressing potential project-level impacts of the proposed project, and identifying feasible project-level mitigation measures, including certain new mitigation measures, to reduce potential impacts to less than significant. The FSEIR analysis updates to the analyses presented in the Mission Bay FEIR and 1998 Mission Bay FSEIR by incorporating knowledge gained through recent San Francisco investigations of deeply buried prehistoric archaeological resources in areas previously thought to have low potential for prehistoric archaeological resources.

In addition, subsequent to the publication of the Draft SEIR, new archaeological testing and monitoring of the project site was conducted in support of the project. The archaeological testing program confirmed the finding of no potential effect to legally-significant archaeological resources by the proposed project. As such, the proposed project would not result in any new or substantially more severe impacts on archaeological resources than were analyzed and disclosed in the 1998 Mission Bay FSEIR.

Appeal Code	Previous Comment/ Letter Cited	Comment Code	Response Code	Topic
R.1	July 26 Brandt-Hawley Law Group, pp. 11-14	O-MBA6B1-14	RTC CULT-1 RTC, p. 13.10-2	Archaeological Resources



## TOPIC S: CEQA FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS

**S.1 Appeal Issue:** The CEQA Findings adopted by the OCII are premature and unsupported. The SEIR cannot be relied upon as an informational document with respect to the analysis and public disclosure of impacts and mitigation measures regarding transportation under CEQA.

**Summary of Appeal Response S.1:** OCII disagrees with the Appellant. OCII has determined that the Final SEIR is adequate, accurate, and objective; the RTC document contains no significant revisions to the Draft SEIR; and the Final SEIR is in full compliance with CEQA and the CEQA Guidelines. For these reasons, the OCII Commission certified the Final SEIR (Resolution No. 69-2015). Furthermore, the OCII Commission has reviewed and considered the certified Final SEIR and has adopted the CEQA Findings for the proposed project, including the Mitigation Monitoring and Reporting Program, and a Statement of Overriding Considerations (Resolution 70-2015). Furthermore, no appeal is available from OCII's approval of Resolution No. 70-2015 adopting CEQA findings, including adopting a mitigation monitoring and reporting program and a statement of overriding considerations. (Letter, T. Bohee to T. Lippe, at p. 2 (Nov. 20, 2015).) While no appeal is available from OCII's approval of Resolution Nos. 70-2015, if the Board – in response to the Certification Appeal – reverses OCII's certification of the SEIR, then “prior project approvals would be rescinded to allow CCII [OCII Commission] to, if and as necessary, adopt additional findings, revise the F[S]EIR, or amend the project approvals.” (*Ibid.*)

**S.2 Appeal Issue:** The Statement of Overriding Considerations is premature and unsupported because OCII's CEQA findings are premature and unsupported. Without a legally adequate description of the nature and extent of the project's environmental harm, OCII and the City cannot properly weigh whether the project's benefits outweigh that harm.

**Summary of Appeal Response S.2:** See response to Appeal Issue S.1.





## Exhibit B

### Appeal Materials Submitted by Appellant

OCII CASE NO. ER 2014-919-97; PLANNING DEPARTMENT CASE NO. 2014.1441E –  
EVENT CENTER AND MIXED-USE DEVELOPMENT AT MISSION BAY BLOCKS 29-32  
CERTIFIED ON NOVEMBER 3, 2015

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MAYOR

Tiffany Bohee  
EXECUTIVE DIRECTOR

Mara Rosales  
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November 13, 2015

Ms Tiffany Bohee  
Executive Director  
Office of Community Investment and Infrastructure  
1 South Van Ness Avenue, 5th Floor  
San Francisco, CA 94103

  
**RECEIVED**

**NOV 13 2015**

**Office of Community Investment & Infrastructure  
One S. Van Ness Avenue, 5th Floor  
San Francisco, CA 94103**

**Re: Notice of Appeal and Appeal of Commission on Community Investment and Infrastructure Resolution 69-2015, certifying the Final Subsequent Environmental Impact Report for the Warriors Arena Project, and Resolution 70-2015, adopting CEQA Findings for the Warriors Arena Project, both approved on November 3, 2015.**

Dear Ms Bohee:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project").

The Mission Bay Alliance hereby appeals

1. Resolution 69-2015, approved by the Commission on Community Investment and Infrastructure on November 3, 2015, certifying the Final Subsequent Environmental Impact Report for the Warriors Arena Project, attached hereto as Exhibit 1.
2. Resolution 70-2015, approved by the Commission on Community Investment and Infrastructure on November 3, 2015, making CEQA Findings included in Resolution 70-2015, attached hereto as Exhibit 2.

This appeal is brought pursuant to Public Resources Code section 21151(c),<sup>1</sup> OCII Resolution 33-2015 (approved June 2, 2015), the Memorandum entitled "Appeal Filing to the Board of Supervisors In Its Capacity as Governing Body of the Successor Agency" (attached hereto as Exhibit

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<sup>1</sup>"If a nonelected decisionmaking body of a local lead agency certifies an environmental impact report, approves a negative declaration or mitigated negative declaration, or determines that a project is not subject to this division, that certification, approval, or determination may be appealed to the agency's elected decisionmaking body, if any."



Ms Tiffany Bohee

Executive Director. OCII

**Re: Notice of Appeal and Appeal of OCII Resolutions 69-2015 and 70-2015 Re Warriors Arena Project**

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3), and San Francisco Ordinance 25-12 (File No. 120898).

The grounds for this appeal are set forth below. The MBA intends this appeal to include all of the grounds it submitted to OCII in its many written and oral comments on the SEIR and Project, including but not limited to the grounds specifically listed in this letter. (See also, July 27, 2015, letter from the Alliance to OCII at FSEIR, Vol. 6, p. Com-37.)

Regarding the written and oral comments where these grounds were raised to OCII, each topic includes an index of said documents, and where helpful to clarify where a ground was so raised, certain grounds are followed by more specific references to the documentary record.

**A. PUBLIC COMMENT.**

1. The OCII thwarted public comment on the SEIR.

The October 23, 2015, notice of publication of the Response to Comments informed the public they would have no further opportunity to comment on the FSEIR/RTC. But the OCII hearing agenda for November 3, 2015, published on October 29, 2015, suggested that public comment on the FSEIR/RTC would be heard at the hearing, and in fact, it was. The October 23, 2015, notice of publication is inconsistent with CEQA section 21177(a), which contemplates public comment on EIRs up to the end of the hearing at which the project is approved. Therefore, the October 23, 2015, notice of publication has frustrated the ability of the public to comment. The City and OCII should remedy this misstep by recirculating the FSEIR with full disclosure that the public may comment on the FSEIR/RTC.

- November 2, 2015, letter from Thomas Lippe to OCII and Planning Department re: Comments on Final Subsequent Environmental Impact Report for the Warriors Arena Project Re Air Quality, Transportation, Hydrology, Water Quality, Biological, and Noise Impacts (“Nov 2 Lippe FSEIR”).

**B. PROJECT DESCRIPTION.**

1. The SEIR presents a shifting and inconsistent project description that thwarts informed decision-making and public participation about the project.

- July 26, 2015 letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-63-65;
- November 2, 2015 letter from Soluri Meserve, pp. 5-7

**C. TIERING.**

1. The SEIR attempts to rely on and tier from EIRs prepared in 1990 and 1998 for Mission Bay



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Redevelopment planning efforts, yet tiering is not permissible because the Project is different than the project described in the prior EIRs.

(a) Reliance on the 1990 and 1998 EIRs for analysis of the impact areas excluded from consideration in the SEIR was impermissible because new information and/or changes in circumstances rendered the prior analyses inapplicable to the currently proposed Project.

(b) The Record contains substantial evidence supporting a fair argument that the Project will result in potentially significant impacts associated with the resource areas excluded from consideration in the SEIR or, alternatively, supplemental review is required under Public Resources Code section 21166 for those same resource areas.

(c) The SEIR's approach to environmental review, including relying on environmental documents almost two decades old as well as numerous subsequently prepared reports and other documents prepared outside of the CEQA process fails to provide a cohesive, understandable document meeting CEQA's mandates for adequacy, completeness, and a good faith effort at full disclosure.

- June 30, 2015, oral comments by Osha Meserve at FSEIR, Vol. 6, p. PH-45;
- July 26, 2015, letter from the Brandt-Hawley Law Group, pp. 1-2;
- July 26, 2015, letter from the Mission Bay Alliance, by Thomas Lippe, Susan Brandt-Hawley, Patrick Soluri, and Osha Meserve, to OCII and Planning Department regarding EIR tiering, at FSEIR, Vol. 6, p. 33;
- June 30, 2015, oral comments by Osha Meserve at FSEIR, Vol. 6, p. PH-45;
- November 2, 2015, letter from Soluri Meserve, pp. 1-3.

**D. AB900 AND ADMINISTRATIVE RECORD.**

1. OCII has failed to comply with applicable requirements to compile and maintain a complete and adequately indexed Record, and also failed to timely make the Record made available online at the time of release of the DSEIR. Therefore, the Project may not rely on AB 900 litigation fast tracking.. (See Resolution 70-2015, CEQA Findings, pp. 14, 17.)

- July 9, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, p. Com-30;
- July 26, 2015, letter from the Mission Bay Alliance, by Thomas Lippe, Susan Brandt-Hawley, Patrick Soluri, and Osha Meserve to OCII and Planning Department regarding litigation streamlining



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under AB 900 at FSEIR, Vol.6, p. Com-35;

- November 2, 2015, letter from Soluri Meserve, p. 3.

#### **E. ALTERNATIVES.**

1. The Draft SEIR fails to adequately address and the Final SEIR fails to adequately respond to comments regarding the inadequacy of EIR analysis of the No Project alternative.

- July 26, 2015, DSEIR comment letter from Susan Brandt-Hawley, at FSEIR, Vol.6, p. COM-44, ALT-2.

2. The Draft SEIR fails to adequately address and the Final SEIR fails to adequately respond to comments regarding the failure to consider a potentially-feasible off-site alternative.

- July 26, 2015, DSEIR comment letter from Susan Brandt-Hawley, at FSEIR, Vol.6, p. Com-44-45, ALT-3.

3. The OCII findings regarding the feasibility of alternatives are not supported by substantial evidence, including the findings regarding the off-site alternative proposed by the Alliance near Pier 80.

- November 3, 2015, letter to OCII from Susan Brandt-Hawley.
- October 13, 2015, letter to OCII from Susan Brandt-Hawley.

#### **F. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO AIR QUALITY IMPACTS.**

1. The Alliance's Air Quality related grounds for appeal are set forth in detail in the following documents:

- July 26, 2015, letter from Thomas Lippe to OCII and Planning Department re Air Quality Impacts including all exhibits identified in and attached to said letter ("July 26 Lippe") at FSEIR, Vol.6, p. Com-86;
- July 19, 2015, letter from Greg Gilbert of Autumn Wind Associates ("July 19 Gilbert") at FSEIR, Vol.6, p. Com-96;
- July 20, 2015, letter from Paul Rosenfeld and Jessie Jaeger of SWAPE ("July 20 SWAPE") at FSEIR, Vol.6, p. Com-104;



Ms Tiffany Bohee

Executive Director. OCII

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- Nov 2 Lippe FSEIR;
- October 30, 2015, letter from Greg Gilbert of Autumn Wind Associates, submitted to OCII on November 3, 2015 (“October 30 Gilbert”);
- November 2, 2015, letter from John Farrow (“Nov 2 Farrow FSEIR”), attached as Exhibit A to Lippe Nov 2 FSEIR,
- November 2, 2015, letter report from Paul Rosenfeld and Jessie Jaeger of SWAPE to Thomas Lippe, attached as Exhibit 1 to Nov 2 Farrow FSEIR (“Nov 2 SWAPE”);
- “Health Risk Assessments for Proposed Land Use Projects,” California Air Pollution Control Officers Association 2009, attached as Exhibit 2 to Nov 2 Farrow FSEIR.<sup>2</sup>
- CEQA Air Quality Handbook, A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review, San Luis Obispo Air Pollution Control District 2012, attached as Exhibit 3 to Nov 2 Farrow FSEIR.<sup>3</sup>
- Mission Bay Land Use Plan, November 2005, attached as Exhibit 4 to Nov 2 Farrow FSEIR.<sup>4</sup>
- “Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessment.” Office of Environmental Health Hazard Assessment, February 2015, attached as Exhibit 5 to Nov 2 Farrow FSEIR.<sup>5</sup>
- Adoption of the Revised Air Toxics Hot Spots Program Technical Support Document for Cancer Potency Factors, Office of Environmental Health Hazard Assessment, June 1, 2009, attached as Exhibit 6 to Nov 2 Farrow FSEIR.<sup>6</sup>
- Adoption of the Revised Air Toxics Hot Spots Program Risk Assessment Guidelines: Revised Technical Support Document for Exposure Assessment and Stochastic Analysis, Office of

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<sup>2</sup>[http://www.capcoa.org/wpcontent/uploads/2012/03/CAPCOA\\_HRA\\_LU\\_Guidelines\\_8-6-09.pdf](http://www.capcoa.org/wpcontent/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf).

<sup>3</sup>[http://www.slocleanair.org/images/cms/upload/files/CEQA\\_Handbook\\_2012\\_v2%20%28Updated%20Sept%202015%29.pdf](http://www.slocleanair.org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20Sept%202015%29.pdf).

<sup>4</sup><http://sfocii.org/Modules/ShowDocument.aspx?documentid=783>.

<sup>5</sup>[http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html).

<sup>6</sup>[http://www.oehha.ca.gov/air/hot\\_spots/tsd052909.html](http://www.oehha.ca.gov/air/hot_spots/tsd052909.html).



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Environmental Health Hazard Assessment, August 27, 2012, attached as Exhibit 7 to Nov 2 Farrow FSEIR.<sup>7</sup>

- Technical Support Document for Exposure Assessment and Stochastic Analysis, Office of Environmental Health Hazard Assessment, August 2012, attached as Exhibit 8 to Nov 2 Farrow FSEIR.<sup>8</sup>

2. The City cannot use the SEIR's thresholds of significance for criteria air pollutants until it formally adopts them in a rule-making procedure. (July 26 Lippe, p. 3; July 19 Gilbert, p. 14.)

3. The SEIR's numerical construction and operational thresholds of significance for criteria pollutants (ozone precursors, PM10, PM2.5), toxics air contaminants, and health risk and its analysis of the significance of the Project's incremental and cumulative impacts from these pollutants for both construction and operation are invalid, based on legal errors and not supported by substantial evidence. (July 26 Lippe; July 19 Gilbert; July 20 SWAPE; Nov 2 Lippe FSEIR; October 30 Gilbert; Nov 2 Farrow FSEIR, Nov 2 SWAPE.)

(a) Air quality thresholds of significance for ozone precursors used in the SEIR are borrowed from another agency and not supported by substantial evidence. (July 26 Lippe, pp. 4-9; July 19 Gilbert, pp. 3-6; October 30 Gilbert, pp. 2-6.)

(b) Air quality thresholds of significance for ozone precursors used in the SEIR are based on inapplicable, outdated, non-scientific New Source Rule ("NSR") values. (July 26 Lippe, pp. 4-9; July 19 Gilbert, pp. 3-6; October 30 Gilbert, pp. 2-6.)

(c) The DSEIR's impact assessments for construction related criteria pollutants (ozone precursors, PM10, PM2.5) and TAC emissions are invalid. (July 26 Lippe, pp. 9-10; July 19 Gilbert, pp. 6-7);

(1) The SEIR underestimates the Project's construction related emissions by incorrectly using a default hauling trip length of 20-miles, provided by the California Emissions Estimator Model ("CalEEMod"), rather than actual trip length, to determine the on-road hauling emissions that would occur during construction. (July 26 Lippe, p. 10; July 20 SWAPE, 2-6.)

(d) The DSEIR's impact assessments for operational criteria pollutants (ozone

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<sup>7</sup>[http://www.oehha.ca.gov/air/hot\\_spots/tsd082712.html](http://www.oehha.ca.gov/air/hot_spots/tsd082712.html).

<sup>8</sup>[http://www.oehha.ca.gov/air/hot\\_spots/pdf/2012tsd/Chapter3\\_2012.pdf](http://www.oehha.ca.gov/air/hot_spots/pdf/2012tsd/Chapter3_2012.pdf).



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precursors, PM10, PM2.5) and TAC emissions are invalid. (July 26 Lippe, pp. 10-11; July 20 SWAPE, 2-6.)

- (1) The SEIR fails to include vehicle emissions from Warriors game traffic in its analysis of operational emissions. (July 26 Lippe, p. 11; July 19 Gilbert, p. 10; October 30 Gilbert, pp. 6-10.)

The DSEIR's impact assessment for operational ozone precursor emissions is also misleading because it omits from its quantitative tally of criteria pollutants the emissions the Project will generate in San Francisco and the Mission Bay neighborhood from basketball game-associated "vehicle miles traveled" (DSEIR, p. 5-37.) The DSEIR's rationale for this startling omission is that moving the Warriors games from Oakland to San Francisco will reduce the same number of "vehicle miles traveled" in Oakland that the Project will generate in San Francisco and the Mission Bay neighborhood.

This rationale is based on the unstated, but incorrect, assumption that the environmental setting at Oracle Arena and the Mission Bay site are identical. These settings are very different, in many crucial respects. First and foremost, the Mission Bay neighborhood and the surrounding areas of San Francisco are populated by San Franciscans, not Oaklanders. The residents, citizens, and registered voters of San Francisco are entitled to know what the Project's air quality impacts will be *on them*, regardless of whether the residents, citizens, and registered voters of Oakland will experience an air quality benefit as a result of the move. (July 26 Lippe, pp. 10-11.)

- (2) To the extent the SEIR's thresholds of significance are invalid, Mitigation Measure M-AQ-2b fails to reduce ozone precursor emissions to less-than-significant levels and SEIR does not consider the feasibility or effectiveness of more robust mitigation strategies that could reduce ozone precursor emissions further below the (invalid) thresholds. (See DSEIR, p. 5.4-39, Table 5.4-9, "Estimated Emissions Reduction Required".) (July 26 Lippe, p. 12.)

4. Mitigation Measure M-AQ-1 does not comply with CEQA's legal requirements.

(a) The SEIR attempts to mitigate the Project's criteria air pollutant emissions by limiting the offroad equipment used during construction to machinery equipped with, at a minimum, Tier 2 engines with 40 percent NOx verified diesel emission control strategies (VDECS), and at a maximum, Tier 4 or Tier 4 interim engines (Volume 2, p. 5.4-32). However, the SEIR does not demonstrate the feasibility of this proposed measure. The



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Project will need to acquire approximately 195 pieces of equipment outfitted with Tier 2 and/or Tier 4 engines. Due to the limited supply of cleaner-burning off-road equipment, the implementation of this measure, in its entirety, is highly unrealistic. As a result, the proposed Project should not rely on this mitigation measure to reduce emissions; rather the Project should pursue additional, feasible mitigation measures other than Tier 2/Tier 4 construction equipment to reduce the Project's criteria air pollutant emissions. (July 26 Lippe, p. 9; July 20 SWAPE, 6-8; October 30 Gilbert, pp. 10-14.)

(b) M-AQ-1 includes a limit on idling time of two minutes, and provides exceptions to this limit as provided in state law (DSEIR, p. 5.4-36), but fails to describe what these exceptions are. The DSEIR must fully describe this measure in order for the public and City decision makers to assess its effectiveness. (July 26 Lippe, p. 10.)

(c) M-AQ-1 is unenforceable and places inappropriate reliance on project sponsor for interpretation and compliance determinations. (July 26 Lippe, p. 10; July 19 Gilbert, pp. 7-10; October 30 Gilbert, pp. 14-16.)

(d) The Response to Comment AQ-6a is Inadequate. (Nov 2 Lippe FSEIR, pp. 2-3; October 30 Gilbert, p. 11.)

(e) The Response to Comment AQ-6e is Inadequate. (Nov 2 Lippe FSEIR, pp. 3-5; October 30 Gilbert, pp. 14-16.)

5. Mitigation Measure M-AQ-2b does not comply with CEQA's legal requirements and the response to this comment is Inadequate. (Nov 2 Lippe FSEIR, pp. 5-6; October 30 Gilbert, pp. 17-19; 19-21.)

(a) The per ton charge for emission offsets is too low to achieve complete offset of the Project's emissions (Comment AQ-7). (July 26 Lippe, pp. 11-12; October 30 Gilbert, pp. 17-19.)

(b) Mobile-based emission offsets sources are too short lived to completely offset Project generated emissions. (July 26 Lippe, pp. 12-13; July 19 Gilbert 14-15; October 30 Gilbert, pp. 19-21.)

6. The SEIR's cancer and health risk assessment for toxic air contaminants is invalid, based on legal errors and not supported by substantial evidence.

(a) The City's reliance on the EPA's judgment of "acceptable" cancer risk is legally flawed for several reasons. First, the City relies on a simplistic misrepresentation of actual EPA policy. Second, even if EPA policy is what the City implies it is, the DSEIR errs as a



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matter of CEQA law by using the EPA's judgment of "acceptable" cancer risk to determine the significance of the Project's impacts. (July 26 Lippe, pp. 13-18.)

(b) The SEIR does not assess the Project's individual excess cancer risk to the Bay Area Air Quality Management District's (BAAQMD) 10 in one million significance threshold. Rather, it determines the Project's significance by comparing the cumulative cancer risk (background risk plus Project risk) to BAAQMD's cumulative risk threshold of 100 in one million. (July 26 Lippe, pp. 13-18.)

(c) The DSEIR fails to utilize BAAQMD's cumulative PM2.5 threshold of 0.8  $\mu\text{g}/\text{m}^3$ . (July 26 Lippe, pp. 18-19; July 20 SWAPE, pp. 10-11.)

(d) The FSEIR fails to provide a project-specific health risk assessment for the Project. The thresholds of significance and the analysis in the FSEIR provide only a cumulative impact analysis. Thus, the FSEIR fails to consider whether the Project's toxic air contaminant (TAC) emissions are, by themselves, a significant impact. Although the FSEIR fails to identify a threshold of significance for project-specific effects, Project-caused excess TAC cancers are more than four times the threshold used by most California air districts to determine the significance of an individual project's impacts. (Nov 2 Farrow FSEIR, pp. 1-3; July 20 SWAPE, pp. 8-10; Nov 2 SWAPE, pp. 2-4.)

(e) The SEIR's assessment of cumulative TACs is invalid because it fails to include all sources of related impacts. The FSEIR fails to include all foreseeable sources of TAC emissions in its cumulative impact analysis, as it omits foreseeable future construction and operation of developments approved in the vicinity of the Project. The health risk assessment should be revised to include TAC emissions from these sources, as they could potentially result in a significant cumulative impact. (Nov 2 Farrow FSEIR, p. 3; Nov 2 SWAPE, pp. 4-12.)

(f) Project health risks are underestimated using older standards. The FSEIR fails to incorporate updated child breathing rates, set forth by OEHHA, in its health risk assessment. Even though OEHHA published these higher breathing rates for children in 2012 and recommends that TAC analyses use these rates, and even though comments requested that the FSEIR provide an updated analysis using these breathing rates, the FSEIR failed to do so. (July 19 Gilbert, pp. 13-14; Nov 2 Farrow FSEIR, pp. 4-5; Nov 2 SWAPE, pp. 12-15.)

7. The SEIR's impact assessment for construction-related dust pollution is based on legal errors or is not supported by substantial evidence. (July 26 Lippe, pp. 1-3.)

8. Construction and operational mitigation options have not been thoroughly reviewed for diesel alternatives. (July 19 Gilbert, pp. 6-7; October 30 Gilbert, p. 16-17.)



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9. Operational mitigation measure for electrical outlets is vague and unenforceable. (July 19 Gilbert, p. 10.)
10. Construction emissions from wastewater improvements have not been adequately Reviewed in the SEIR. (See July 24, 2015, letter from Thomas Lippe to OCII re Hydrology, Water Quality and Biological Impacts, pp. 1-4; July 19 Gilbert, pp. 2-3.)
11. Changes to the project since publication of the DSEIR require recirculation of a revised DSEIR due to new and more severe significant impacts. (Lippe Nov 2 FSEIR, pp. 6-7.)
12. New Information regarding Mitigation Measure M-AQ-2b since publication of the DSEIR require recirculation of a revised DSEIR. ((Lippe Nov 2 FSEIR, pp. 5-6; October 30 Gilbert, pp. 17-18; Oral testimony of Thomas N. Lippe at November 3, 2015, OCII hearing).

By letter dated November 2, 2015, to the OCII, the Bay Area Air Quality Management District announced that it would not participate in Mitigation Measure M-AQ-2b's offset plan because the City and Project Sponsor refuse to agree to BAAQMD's offset fees.

The City cannot find that "Impact AQ-4: Potential conflicts with BAAQMD's 2010 Clean Air Plan" is less than significant with mitigation because the City and Project Sponsor refuse to agree to BAAQMD's offset fees per Mitigation Measure M-AQ-2b. (See Exhibits 4 and 5.)

There is also no evidence that the "Option 2" offset within Mitigation Measure M-AQ-2b is feasible. There are too many unanswered questions regarding Option 2, including lack of assured verification of offsets to ensure their effectiveness, and lack of assurance that offset sources are available in the quantity required. BAAQMD's offset program at least answers some, if not all, of these questions.

The City cannot find that all feasible mitigation measures that would substantially reduce "Impact AQ-1: Impacts of Criteria Air Pollutants from Construction" have been adopted as required by CEQA section 21081, because there is no evidence that paying the offset fees demanded by BAAQMD is infeasible. Also, as discussed above, there is no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible; therefore, it is not an adequate substitute for BAAQMD's offset program. This also applies to Impact AQ-2 [Impacts of Criteria Air Pollutants from Project Operations]; and Impact C-AQ-1 [Project Contribution to Regional Air Quality Impacts].

**G. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO TRANSPORTATION IMPACTS.**



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1. The Alliance's Transportation-related grounds for appeal are set forth in detail in the following documents:

- July 27, 2015, letter from Thomas Lippe to OCII and Planning Department re Transportation Impacts ("July 27 Lippe") at FSEIR, Vol. 6, p. Com-117, , including all exhibits listed on page 20 thereof, including:
- Exhibit 1 thereto, July 23, 2015, letter to Tom Lippe from traffic engineer Dan Smith ("July 23 Smith") at FSEIR, Vol. 6, p. Com-127; and
- Exhibit 2 thereto, July 21, 2015, letter to Tom Lippe from traffic engineer Larry Wymer ("July 21 Wymer") at FSEIR, Vol. 6, p. Com-141;
- Nov 2 Lippe FSEIR, including:
- As Exhibit F thereto, a November 2, 2015, letter from Dan Smith ("Nov 2 Smith FSEIR")
- As Exhibit G thereto, a November 2, 2015, letter from Larry Wymer ("Nov 2 Wymer FSEIR").
- November 10, 2015, letter from Dan Smith to Tom Lippe re Emergency Access, which is attached hereto as Exhibit 4 ("Nov 10 Smith FSEIR Access").
- November 10, 2015, letter from Dan Smith to Tom Lippe re Port Parking Facilities, which is attached hereto as Exhibit 5 ("Nov 10 Smith FSEIR Port").
- November 13, 2015, letter from Dan Smith to Tom Lippe re King Street Electrical Work, which is attached hereto as Exhibit 6 ("Nov 13 Smith FSEIR King St").

2. The SEIR fails to assess the Project's traffic impacts on the entire affected environment.

(a) The City's selections of intersections (and freeway ramps) studied in the DSEIR excludes intersections it knew or should have known would potentially be significantly impacted by the project.

- July 27 Lippe, p. 1; July 23 Smith, p. 8; July 21 Wymer, pp. 1-12; Nov 2 Smith FSEIR pp. 5-8; Nov 2 Wymer FSEIR.

3. The SEIR fails to disclose the severity of the Project's impacts on intersections and freeway ramps which the project will cause to deteriorate to Level of Service (LOS) F.

- July 27 Lippe, p. 3; July 23 Smith, p. 11; July 21 Wymer, p. 12-13; Nov 2 Smith FSEIR p. 16-18.



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4. The SEIR fails to identify the significance and severity of the Project's impacts on intersections where the Project will use Parking Control Officers.

- July 27 Lippe, p. 4; July 23 Smith, p. 11; Nov 2 Smith FSEIR pp. 16-18.

5. The SEIR's analysis of the project's construction-related traffic congestion and delay impacts is legally flawed because it is based on invalid criteria, it fails to lawfully assess the Project's cumulative construction period impacts, and it improperly defers the development of mitigation measures to reduce the Project's construction-related traffic impacts to less than significant.

- July 27 Lippe, pp. 5-7; July 23 Smith, p. 15; Nov 2 Smith FSEIR p. 22.

6. The SEIR's Analysis of the Project's Operational Traffic and Transit Congestion and Delay Impacts Is Legally Flawed.

(a) The SEIR understates traffic and transit volumes in the PM peak period of 4:00 to 6:00 PM by using "time of arrival" at the Arena as a proxy measurement for "time of travel."

- July 27 Lippe, p. 7; July 23 Smith, p. 1; July 21 Wymer, p. 12-13; Nov 2 Smith FSEIR p. 13-16.

(b) The DSEIR only analyzes impacts of weeknight basketball games that start at 7:30 PM, not at other start times closer to the PM peak.

- July 23 Smith, p. 5; July 21 Wymer, pp. 12-13; Nov 2 Smith FSEIR pp. 3-5.

7. The SEIR's Analysis of the Project's Cumulative Impacts Does Not Comply With CEQA.

(a) The 5% threshold of significance for impacts at intersections and freeway ramps operating at LOS E or F violates CEQA.

- July 27 Lippe, p. 11.

(b) The year 2040 baseline for assessing the significance of the Project's cumulative impacts violates CEQA and the SEIR's excessively distant time frame and massive development assumptions masks significance of project's nearer term cumulative impacts.

- July 27 Lippe, p. 12; July 23 Smith, pp. 25-26; Nov 2 Smith FSEIR pp. 20-22.

(c) The SEIR's use of a "projection" based approach to the Project's cumulative impacts is misleading.



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- July 27 Lippe, p. 13.

(d) The SEIR's cumulative analysis fails to consider and analyze the project in the context of the City's proposal to remove the northern portion of I-280 as far south as the Mariposa Street interchange.

- July 23 Smith, p. 13.

8. The SEIR's methodology for analyzing project impacts on the transit system is legally flawed. The SEIR's use of transit screenline and route capacities is misleading and unsupported, so the City's process for evaluating a project's impacts on public transit evades disclosure of significant impacts. The SEIR's use of a project specific threshold of significant impact of 100 percent of screenline capacity rather than the normal 85 percent of screenline capacity exacerbates overcrowding impacts on the regular user community of and is unsupported and unwarranted.

- July 27 Lippe, p. 14; July 23 Smith, pp. 5-8; Nov 2 Smith FSEIR p. 18-20.

9. The SEIR Unlawfully Defers the Development of Mitigation Measures.

- Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts. (DSEIR, p. 1-15.)
- Mitigation Measure E.47: Transportation System Management Plan. (DSEIR, p. 1-17.)
- Mitigation Measure M-TR-5a: Additional Caltrain Service. (DSEIR, p. 1-18.)
- Mitigation Measure M-TR-5b: Additional North Bay Ferry and/or Bus Service. (DSEIR, p. 1-19.)
- Mitigation Measure M-TR-9a: Crane Safety Plan for Project Construction. (DSEIR, p. 1-20.)
- Mitigation Measure M-TR-9d: Event Center Exterior Lighting Plan. (DSEIR, p. 1-21.)
- Mitigation Measure M-TR-11b: Participation in the Ballpark/Mission Bay Transportation Coordinating Committee. (DSEIR, p. 1-22.)
- Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events. (DSEIR, p. 1-23.)
- Mitigation Measure M-TR-13: Additional Muni Transit Service during Overlapping Events. (DSEIR, p. 1-24.)



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- Mitigation Measure M-TR-14: Additional BART Service to the East Bay during Overlapping Events. (DSEIR, p. 1-24.)

- Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring. (DSEIR, p. 1-25.)

- July 27 Lippe, p. 16; July 23 Smith, pp. 17-25.

10. Mitigation measures are vague, insubstantive, unresponsive to the impact purportedly addressed or do not qualify as mitigation under ceqa.

- Improvement Measure I-TR-1

- Mitigation Measure M-TR-2a

- Mitigation Measure M-TR-2b

- Impact and Mitigation Measure TR-5a

- Impact and Mitigation Measure TR-5b

- July 23 Smith, pp. 17-25.

11. The SEIR impermissibly characterizes mitigation measures for the Project's transportation impacts as elements or components of the Project thereby failing to adequately analyze and disclose the Project's potentially significant impacts separate from the analysis of the feasibility and effectiveness of proposed mitigation measures.

- November 3, 2015, letter from Soluri Meserve to SFMTA, pp. 1-3;

- July 26, 2015, letter from Dan Smith of Smith Engineering & Management at FSEIR, Vol. 6, pp. Com-135-139;

- July 27 letter from Thomas Lippe at FSEIR, p. Com-126.

12. By characterizing mitigation measures for the Project's transportation impacts as elements or components of the Project, the SEIR fails to set forth enforceable mitigation.

- November 3, 2015, letter from Soluri Meserve to SFMTA, pp. 1-3;

- July 26, 2015, letter from Dan Smith of Smith Engineering & Management at FSEIR, Vol. 6, pp.



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Com-135-139;

- July 27 letter from Thomas Lippe at FSEIR, p. Com-126.

13. The SEIR relies on the Project's contribution to a fair-share fee program to mitigate the Project's transportation impacts without adequately disclosing the required information about such mitigation.

- November 3, 2015, letter from Soluri Meserve to SFMTA, pp. 1-4;
- November 2, 2015, letter from Dan Smith of Smith Engineering & Management, pp. 2-3. Urban Decay

14. The Transit Analysis understates impacts because it relies on stale transit baseline data.

- July 23 Smith, p. 9; Nov 2 Smith FSEIR pp. 9-13.

15. The Traffic Analysis understates impacts because it relies on stale traffic baseline data.

- July 23 Smith, p. 10; Nov 2 Smith FSEIR pp. 9-13.

16. The SEIR's discussion of transportation impacts is incomplete.

- July 27 Lippe, p. 18; Nov 2 Smith FSEIR p. 1-3;

17. Complex interrelated issues are not addressed in the SEIR

- July 23 Smith, p. 12.

18. There is no evidence the DSEIR considered the disruptive impacts of the at-grade rail crossing of 16th Street on intersection LOS at the intersections of 16th and 3rd and 16th and 7th Streets.

July 23 Smith, p. 14.

19. The Project's truck loading and truck staging provisions are inadequate.

- July 23 Smith, p. 14; Nov 2 Smith FSEIR p. 22.

20. The SEIR concludes, without adequate foundation, that the project would not have an adverse impact on emergency access to UCSF hospitals.



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- July 23 Smith, p. 16; Nov 2 Smith FSEIR p. 22; Nov 10 Smith FSEIR Access.

21. New information since publication of the DSEIR require recirculation of a revised DSEIR because the omission of this information from the DSEIR rendered public comment meaningless.

Section 13.11.6 – Response TR-5 of the FSEIR/RTC responds to comments by BART (Comments A-BART-1, -4, -5, -7, -8, and -9) and the Alliance (O-MBA10L4-19) supplying a station-level analysis of impacts on BART that was critically missing in the DSEIR. This station-level analysis provides completely new information, including Table 13.11-2, and conclusions that were previously missing. Consequently, the information should be available for review for the full 45 day review period in Recirculated Draft status under CEQA.

- Nov 2 Smith FSEIR p. 22.

22. Changes to the project since publication of the DSEIR require recirculation of a revised DSEIR due to new and more severe significant impacts. The new project variant will dig up King Street for six months and Third Street for fourteen months. (FSEIR, pp. 12-11, 12-25.) This will exacerbate construction phase impacts on traffic, either creating new significant impacts not previously identified in the SEIR.

- Nov 13 Smith FSEIR King St.

**H. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO HYDROLOGY, WATER QUALITY, AND BIOLOGICAL IMPACTS.**

1. The Alliance's Hydrology, Water Quality, and Biological Impacts related grounds for appeal are set forth in detail in the following documents:

- July 24, 2015, letter from Thomas Lippe to OCII and Planning Department re Impacts on Hydrology, Water Quality, and Biological Resources ("July 24 Lippe") at FSEIR, Vol. 6, p. Com-147, including:
- July 21, 2015, letter to Thomas Lippe from Matt Hageman ("July 21 Hageman") at FSEIR, Vol. 6, p. Com-155;
- July 21, 2015, letter to Thomas Lippe from Erik Ringelberg and Kurt Balasek ("July 21 Ringelberg") at FSEIR, Vol. 6, p. Com-159;
- July 22, 2015, letter report by geotechnical engineer Martin Cline and Kurt Balasek, regarding Hazardous Materials ("July 22 Cline"), at FSEIR, Vol. 6, p. Com-70 (attached as Exhibit B to July



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26, 2015 Soluri Meserve letter to OCII re DSEIR at FSEIR, Vol. 6, p. Com-48.)

- Nov 2 Lippe FSEIR;
- As Exhibit H thereto, November 2, 2015, letter to Thomas Lippe from Matt Hageman (“Nov 2 Hageman”).
- As Exhibit I thereto, a November 2, 2015, letter from Erik Ringelberg and Kurt Balasek of BSK Associates (“Nov 2 BSK”)
- As Exhibit J thereto, a November 2, 2015, letter from Erik Ringelberg (“Nov 2 Ringelberg”).
- As Exhibit K thereto, a July 16, 2015, BSK Technical Memorandum Regarding the Proposed Warrior Arena Wetland Features by Erik Ringelberg and Kevin Grove (“July 16 BSK Wetland”).
- As Exhibit L thereto, an October 29, 2015, Draft Waters and Wetland Delineation Report Proposed Mission Bay Development, Blocks 29-32 San Francisco, California, by Erik Ringelberg and Kevin Grove of BSK Associates (“Oct 29 BSK Wetland”).

2. The DSEIR is not sufficient as an informational document with respect to the project’s wastewater treatment infrastructure impacts, and the Response to this comment (UTIL-3) is inadequate.

- July 26 Lippe, pp. 1-4; Nov 2 Lippe FSEIR, pp. 8-10;

3. The DSEIR is not sufficient as an informational document with respect to the Project’s contaminated wastewater (i.e. combined sewage and stormwater) impacts on San Francisco Bay water quality or biological resources (including from inadequately treated sewage and toxic chemicals (e.g., PCB’s and metals), and the FSEIR’s Response to these comments (Hyd-3 - Hyd-6) are inadequate.

- July 26 Lippe, pp. 4-10; Nov 2 Lippe FSEIR, pp. 10-12; July 21 Hageman; Nov 2 Hageman; Nov. 2 BSK; July 22 Cline, pp. 1-15.

4. The DSEIR is not sufficient as an informational document with respect to project impacts on biological resources, including wetlands and wildlife.

- (a) The SEIR’s exclusion of the Project’s impacts on biological resources is erroneous because there is substantial evidence supporting a fair argument the Project may have a significant effect by destroying the on-site wetland. And even if CEQA section 21166 applies, CEQA requires including this issue in the subsequent EIR because the presence of



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the wetland is a change in circumstances since certification of the 1998 FSEIR that gives rise to the potential for new significant effects not previously identified.

(b) The SEIR's exclusion of the Project's impacts on biological resources is erroneous because the lead agency failed to prepare any CEQA document that adequately describes the Project's environmental setting to allow an assessment of the Project's impacts on biological resources.

(c) The SEIR's failure to analyze wetland resources on the Project site resulted in the failure to disclose the Project's need for a federal Clean Water Act section 404 fill permit, as well as a consistency determination under the Coastal Zone Management Act.

- July 26 Lippe, pp. 11-15; July 16 BSK Wetland; July 21 Ringelberg; Oct 29 BSK Wetland; Nov 2 Lippe FSEIR, pp. 10-15; Nov 2 BSK; Nov 2 Ringelberg; October 7, 2015, letter to OCII from Soluri Meserve regarding Clean Water Act 404 and CZMA Consistency.

5. The SEIR fails to include all feasible mitigation measures to lessen or mitigate impacts to state and/or federal jurisdictional wetland features.

- July 26 Lippe, pp. 11-15; July 16 BSK Wetland; July 21 Ringelberg; Oct 29 BSK Wetland; Nov 2 Lippe FSEIR, pp. 12-13; Nov 2 BSK; Nov 2 Ringelberg.

6. The SEIR fail to include all feasible mitigation to lessen or mitigate the significant and unavoidable cumulative impact associated with exceeding of the capacity of the Mariposa Pump Station.

- July 26 Lippe, pp. 1-10; Nov 2 Lippe FSEIR, pp. 8-12; Nov 2 BSK; Nov 2 Ringelberg.

7. The DSEIR is not sufficient as an informational document with respect to the Project's flooding risk and inundation impacts.

- July 26 Lippe, pp. 15-16.

**I. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO NOISE IMPACTS.**

1. The Alliance's Noise related grounds for appeal are set forth in detail in the following documents:

- July 25, 2015, letter from Thomas Lippe to OCII and Planning Department re Noise Impacts ("July 25 Lippe"), at FSEIR, Vol. 6, p. Com-109, including all the exhibits attached thereto,



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including:

- July 24, 2015, letter to Thomas Lippe from acoustic engineer Frank Hubach (“July 24 Hubach”) at FSEIR, Vol. 6, p. Com-113,
- Nov 2 Lippe FSEIR, including
- As Exhibit S thereto, November 2, 2015, letter to Thomas Lippe from acoustic engineer Frank Hubach (“Nov 2 Hubach”)

2. The SEIR rigidly adheres to the regulatory scheme of the San Francisco Noise Ordinance in assessing the significance of Project generated noise, and this is true of both impact and non-impact equipment to be sued in construction and operational noise sources such as crowds and traffic. This is an error of law, because it injects the question of what is “allowed” into the determination of “significance.” The question of what is allowed is the final step in the CEQA process, and involves weighing considerations relating to the social and economic benefits of the Project.

Injecting consideration of what is “allowed” into the first step subverts the integrity of the entire analysis. For projects for which an EIR has been prepared, both the EIR and the mandatory findings required by CEQA section 21081, the analysis starts with whether an impact is significant.

A finding of significance triggers the obligation to identify and adopt feasible mitigation measures that are effective in substantially reducing the significant impact. Once all feasible and effective mitigation measures have been identified and adopted, if the impact remains significant, the agency may approve the project if it finds that social or economic considerations outweigh environmental harm. Each of these steps in the analysis is distinct.

The RTC’s responses to comments conflate and confuse these steps, and thereby undermine the integrity of the analysis. This conflation of the distinct steps in the analysis explains why the FSEIR/RTC’s insistence on using the San Francisco Police Code’s regulatory requirements (i.e., the City’s final resolution of what is allowed and what is not allowed) as thresholds of significance is inconsistent with CEQA. The Police Code’s regulatory requirements reflect the City’s effort to balance the protection of people from harmful noise against the need for social and economic activity. That balance does not necessarily reflect the point at which impacts become significant. Under CEQA, such balancing is also required, but not where significance is determined. In short, even where the lead agency believes an activity should be “allowed” because the social or economic considerations outweigh the environmental harm, the EIR must still disclose whether the impact is significant.

- July 25 Lippe; July 24 Hubach, Nov 2 Lippe FSEIR, pp. 1-2, 14-15; Nov 2 Hubach.



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3. The SEIR uses “ambient plus increment” thresholds of significance for all noise impacts. This is a legal error because as described by Mr. Hubach in the context of operational noise impacts (Impact NO-5), the DSEIR uses a series of “ambient plus increment” thresholds. As discussed by Mr. Hubach, using “ambient plus increment” thresholds where existing noise levels are already high:

disregards the fact the Project will make severe conditions worse. In addition, using these “ambient plus increment” thresholds for operational noise results in an unsustainable gradual increase in ambient noise. It is a formula for ever-increasing noise levels because each new project establishes a new, higher, baseline; then when the next project is approved, the incremental change will be added to the new baseline.

(July 24 Hubach, p. 5.)

By ignoring the severity of existing noise levels and only looking to the “de minimis” nature of the Project’s incremental effect, the DSEIR’s noise impact determinations violate CEQA. (See *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 120 (“CBE”) “[T]he relevant question”... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether “any additional amount” of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant. [footnote omitted]”).<sup>9</sup> *Communities* and *Kings County* teach that the significance of a cumulative impact depends on the environmental setting in which it occurs, especially the severity of existing environmental harm.

- July 25 Lippe; July 24 Hubach, Nov 2 Lippe FSEIR, pp. 1-2, 14-15; Nov 2 Hubach.

4. The SEIR fails to use thresholds of significance based on human health and welfare (e.g., the thresholds stated in San Francisco Police Code section 2909(d) without the narrow regulatory constraints of that ordinance, or the World Health Organization (WHO) standards referenced in the Alliance’s comment letter.

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<sup>9</sup>*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-21 [“They contend in assessing significance the EIR focuses upon the ratio between the project’s impacts and the overall problem, contrary to the intent of CEQA.... We find the analysis used in the EIR and urged by GWF avoids analyzing the severity of the problem and allows the approval of projects which, when taken in isolation, appear insignificant, but when viewed together, appear startling. Under GWF’s ‘ratio’ theory, the greater the overall problem, the less significance a project has in a cumulative impacts analysis. We conclude the standard for a cumulative impacts analysis is defined by the use of the term ‘collectively significant’ in Guidelines section 15355 and the analysis must assess the collective or combined effect of energy development”].)



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- July 25 Lippe, pp. 4-7; July 24 Hubach, pp. 3-6, Nov 2 Lippe FSEIR, pp. 1-2, 14-15; Nov 2 Hubach.

**J. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO GREENHOUSE GAS EMISSION IMPACTS.**

1. The SEIR's conclusion that greenhouse gas ("GHG") emissions are less than significant is not supported by substantial evidence.

- June 30, 2015, oral comments by Osha Meserve and Susan Vaughn at FSEIR, Vol. 6, PH-44 - PH-45;
- July 26, 2015, letter from Soluri Meserve, pp. 2-6;
- July 27, 2015, letter from Susan Vaughn, Sierra Club, FSEIR, Vol. 6, COM-180 - COM 181;
- July 20, 2015, letter report by air quality professionals Patrick Sullivan, CPP, REPA, and John Henkelman, regarding Greenhouse Gas Emissions, pp. 1-34 (Exhibit A to July 26, 2015 Soluri Meserve letter);
- November 2, 2015, letter from Soluri Meserve, pp. 3-6;
- November 2, 2015, letter report by air quality professionals Patrick Sullivan, CPP, REPA, and John Henkelman, regarding Greenhouse Gas Emissions, pp. 1-4 (Exhibit 1 to November 2, 2015 Soluri Meserve letter).

2. Recirculation is required due to the FSEIR's change in approach to GHG analysis from the quantitative analysis described in the DSEIR that relied on the faulty GHG inventory prepared for AB 900 Leadership Development Project certification concluding there would be "no net emissions" to a "qualitative" analysis stating GHG emissions would be less than significant based on the Project's consistency with the local GHG reduction plan.

- November 2, 2015, letter from Soluri Meserve, pp. 3-6;
- November 2, 2015, letter report by air quality professionals Patrick Sullivan, CPP, REPA, and John Henkelman, regarding Greenhouse Gas Emissions, pp. 1-4 (Exhibit 1 to November 2, 2015 Soluri Meserve letter).

3. As quantitative methods of assessing Project-level GHG emissions are available, the EIR's lack of quantification of the impact was a failure to proceed in the manner provided by law.



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- November 2, 2015, letter report by air quality professionals Patrick Sullivan, CPP, REPA, and John Henkelman, regarding Greenhouse Gas Emissions, pp. 1-4 (Exhibit 1 to November 2, 2015, Soluri Meserve letter);

- November 2, 2015, letter from Soluri Meserve, pp. 4-5.

4. The SEIR fails to require all feasible mitigation of the GHG emissions from the Project.

- July 26, 2015, letter from Soluri Meserve, pp. 4-6;

- November 2, 2015, letter from Soluri Meserve, pp. 3-6.

5. The SEIR impermissibly conflates analysis of the Project's design features (Improvement Measures) and mitigation measures, and thus fails to consider whether other possible mitigation measures would be more effective

6. The FSEIR fails to adequately respond in good faith to comments about the GHG analysis, including but not limited to explaining why it was proper to exclude the office towers from the GHG emissions inventory.

- November 2, 2015, letter from Soluri Meserve, pp. 3-5.

**K. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO GEOLOGY AND SOILS IMPACTS.**

1. The Record contains substantial evidence supporting a fair argument that the Project will result in potentially significant Geology and Soils impacts or, alternatively, supplemental review is required under Public Resources Code section 21166.

- July 26, 2015, letter from Soluri Meserve, pp. 13-20;

- July 21, 2015, letter report by geotechnical engineer Lawrence Karp, CE, CEG, regarding Geology and Soils impacts, pp. 1-11 (Exhibit C to July 26, 2015 Soluri Meserve letter);

- July 20, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-18 (Exhibit D to July 26, 2015, Soluri Meserve letter);

- November 2, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-4 (Exhibit 2 to November 2, 2015 Soluri Meserve letter);



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- November 2, 2015, letter from Soluri Meserve, pp. 9-11;

2. Reliance on the 1998 SEIR analysis of Geology and Soils was impermissible because the Project is different than the project described in the 1998 FSEIR, the 1998 FSEIR relies on outdated data and methodology to analyze impacts, and conditions have changed such that the 1998 FSEIR does not describe the present conditions at the site.

- July 26, 2015, letter from Soluri Meserve, pp. 13-20;

- July 21, 2015, letter report by geotechnical engineer Lawrence Karp, CE, CEG, regarding Geology and Soils impacts, pp. 1-11 (Exhibit C to July 26, 2015 Soluri Meserve letter);

- July 20, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-18 (Exhibit D to July 26, 2015 Soluri Meserve letter);

- November 2, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-4 (Exhibit 2 to November 2, 2015 Soluri Meserve letter);

- November 2, 2015, letter from Soluri Meserve, pp. 9-11

3. The EIR impermissibly defers development of mitigation measures necessary to ensure that Geology and Soils impacts are mitigated to less than significant levels.

- July 26, 2015, letter from Soluri Meserve, pp. 18-20;

- July 21, 2015, letter report by geotechnical engineer Lawrence Karp, CE, CEG, regarding Geology and Soils impacts, pp. 1-11 (Exhibit C to July 26, 2015 Soluri Meserve letter);

- July 20, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-18 (Exhibit D to July 26, 2015, Soluri Meserve letter);

- November 2, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-4 (Exhibit 2 to November 2, 2015 Soluri Meserve letter);

- November 2, 2015, letter from Soluri Meserve, pp. 9-11.

4. Recirculation is required due to new information presented in the FSEIR and within the



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Record regarding Geology and Soils impacts.

- July 22, 2015, letter report by geotechnical engineer Lawrence Karp, CE, CEG, regarding Geology and Soils impacts;
- July 22, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts);

5. The FSEIR fails to adequately respond in good faith to comments about Geology and Soils analysis.

- November 2, 2015, letter report by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts, pp. 1-4 (Exhibit 2 to November 2, 2015 Soluri Meserve letter);

**L. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO HAZARDS AND HAZARDOUS MATERIALS IMPACTS.**

1. The Record contains substantial evidence supporting a fair argument that the Project will result in potentially significant Hazards and Hazardous Materials impacts or, alternatively, supplemental review is required under Public Resources Code section 21166.

- July 26, 2015, letter from Soluri Meserve, pp. 7-20;
- November 2, 2015, letter from Soluri Meserve, pp. 11-14;
- July 22, 2015, letter report by geotechnical engineer Martin Cline, GEG and Kurt Balasek, PG, CHg, QSD, regarding Hazardous Materials, pp. 1-15 (Exhibit B to July 26, 2015, Soluri Meserve letter);
- October 20, 2015, letter to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review for Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 - Updated Soil and Screening Levels

2. Reliance on the 1998 SEIR analysis of Hazards and Hazardous Materials was impermissible because the Project is different than the project described in the 1998 FSEIR, the 1998 FSEIR relies on outdated data and methodology to analyze impacts, and conditions have changed such that the 1998 FSEIR does not describe the present contamination at the site.

- July 26, 2015, letter from Soluri Meserve, pp. 7-13;



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- November 2, 2015, letter from Soluri Meserve, pp. 11-14;
- July 22, 2015, letter report authored by geotechnical engineer Martin Cline, GEG and Kurt Balasek, PG, CHg, QSD, regarding Hazardous Materials, pp. 1-15 (Exhibit B to July 26, 2015 Soluri Meserve letter);
- October 20, 2015, letter from Soluri Meserve to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review - Updated Soil and Screening Levels;
- October 20, 2015, report by Damian applied Technology regarding Updated Soil and Groundwater Screening Levels for the Golden State Warriors Arena;

3. Significant new information since the certification of the 1998 SEIR requires analysis of Hazards and Hazardous Materials impacts from risks of exposure.

- July 26, 2015, letter from Soluri Meserve, pp. 7-13
- November 2, 2015, letter from Soluri Meserve, pp. 11-14;
- July 22, 2015, letter report authored by geotechnical engineer Martin Cline, GEG and Kurt Balasek, PG, CHg, QSD, regarding Hazardous Materials, pp. 1-15 (Exhibit B to July 26, 2015 Soluri Meserve letter);
- October 20, 2015, letter from Soluri Meserve to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review - Updated Soil and Screening Levels;
- October 20, 2015, report by Damian applied Technology regarding Updated Soil and Groundwater Screening Levels for the Golden State Warriors Arena;

4. Recirculation of the FSEIR was required due to new information regarding substantially more severe and/or significant impacts associated with the presence of asbestos on the Project site. (FSEIR, Vol. 5, p. 13-22 to 13-29.)

- July 26, 2015, letter from Soluri Meserve, p. 13;
- July 22, 2015, letter report by geotechnical engineer Martin Cline, GEG and Kurt Balasek regarding Hazardous Materials, pp. 4-6 (Exhibit B to July 26, 2015 Soluri Meserve letter);
- November 2, 2015, letter from Soluri Meserve, p. 12, Exhibit 3, p. 3.

5. The FSEIR fails to adequately respond in good faith to comments about the Hazards and



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Hazardous Materials analysis.

**M. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO URBAN DECAY IMPACTS IN OAKLAND.**

1. The SEIR fails to adequately analyze the potentially significant impact of urban decay in Oakland.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, p. Com-65;
- July 13, 2015, memo from Philip King, Ph.D at FSEIR, Vol. 6, pp. Com-82-86;
- November 2, 2015, letter from Soluri Meserve, p. 14;
- November 2, 2015, memo from Philip King, Ph.D.

2. The FSEIR fails to provide a good faith response to comments on the issue of urban decay.

- November 2, 2015, letter from Soluri Meserve, p. 14;
- November 2, 2015, memo from Philip King, Ph.D.

3. The purported analysis of urban decay contained in the FSEIR requires recirculation.

- November 2, 2015, letter from Soluri Meserve, p. 14.

**N. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO WIND AND SHADOW IMPACTS.**

1. The FSEIR fails to adequately analyze and disclose significant wind impacts to open space within the Project site.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-62-63;
- November 2, 2015, letter from Soluri Meserve, pp. 6-8.

2. The FSEIR fails to adequately respond in good faith to comments about the wind analysis.

- November 2, 2015, letter from Soluri Meserve, pp. 6-8.

3. Recirculation of the FSEIR is required because the FSEIR disclosed a new significant wind



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impact.

- November 2, 2015, letter from Soluri Meserve, p. 8.

**O. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO RECREATION IMPACTS.**

1. A fair argument exists that the Project will accelerate substantial deterioration of Bayfront Park thereby requiring analysis in the SEIR.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-60-61;
- November 2, 2015, letter from Soluri Meserve, pp. 8-9.

2. Even if consistent with the 1998 SEIR, the proposed Project represents a major revision that will result in a significantly more significant impact to deterioration of Bayfront Park than previously analyzed in 1998.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-60-61;
- November 2, 2015, letter from Soluri Meserve, pp. 8-9.

3. The FSEIR fails as an informational document regarding impacts to recreation because it improperly excludes analysis of environmental impacts associated with development of Bayfront Park.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-60-61;
- November 2, 2015, letter from Soluri Meserve, pp. 8-9.

4. Even if construction of Bayfront Park was previously analyzed at a programmatic level in the 1998 EIR, new information and changed circumstances results in a new and more severe significant impacts related to hazardous material exposure to residents of Bayfront Park than previously analyzed in 1998 and require analysis in a recirculated SEIR.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-60-61;
- November 2, 2015, letter from Soluri Meserve, pp. 8-9.
- The FSEIR failed to adequately respond in good faith to comments about the Project's impacts to recreational facilities.



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- November 2, 2015, letter from Soluri Meserve, pp. 8-9.

**P. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO UTILITIES IMPACTS.**

1. The FSEIR fails as an informational document regarding water supply infrastructure because it impermissibly defers analysis of the impacts associated with constructing water supply infrastructure.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-58-59.

2. The FSEIR may not rely on the 1998 SEIR regarding analysis of water supply infrastructure because new information and/or changed circumstances results in new and more severe significant impacts associated with constructing these facilities that were not previously disclosed.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-58-59.

3. New information and/or changed circumstances prohibit the SEIR from relying on the Water Supply Assessment prepared for another project in 2013.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-58-59.

4. The FSEIR fails as an informational document with respect to its discussion of stormwater treatment facilities and the Project's impact.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-59-60.

5. The FSEIR fails as an informational document by not including a detailed statement of the Project's energy demand in the DSEIR that was circulate for public review. The information contained in the FSEIR RTC constitutes new information that requires recirculation.

- July 26, 2015, letter from Soluri Meserve at FSEIR, Vol. 6, pp. Com-61-62.

**Q. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO LAND USE IMPACTS.**

1. The Draft SEIR fails to address and the Final SEIR fails to adequately respond to comments regarding the inconsistency of the Warriors Arena Project with the primary and secondary uses encompassed in and allowed by the Mission Bay South Redevelopment Plan. The OCII findings on land use consistencies are not supported by substantial evidence.



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- July 26, 2015, DSEIR comment letter from Susan Brandt-Hawley, at FSEIR, Vol.6, p. Com-40-41, LU-2, PD-1.
- November 2, 2015, letter to OCII from Susan Brandt-Hawley re FSEIR/RTC.
- Testimony at November 3, 2015, OCII public hearing by Susan Brandt-Hawley.

2. The Draft SEIR fails to address and the Final SEIR fails to adequately respond to comments regarding the inconsistency of the Warriors Arena Project with land use policies established by the Mission Bay South Redevelopment Plan and the Design for Development.

- July 26, 2015, DSEIR comment letter from Susan Brandt-Hawley, at FSEIR, Vol.6, p. COM-41, PP-1.

3. The Draft SEIR fails to address and the Final SEIR fails to adequately respond to comments regarding the inadequacy of the EIR's analysis of changing the land use planned for the Mission Bay South area by changing the planned community character as a biotechnology and medical hub with the Event Center.

- July 26, 2015, DSEIR comment letter from Susan Brandt-Hawley, at FSEIR, Vol.6, p. COM-43, LU-1.

**R. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO CULTURAL RESOURCE IMPACTS.**

1. The Draft SEIR fails to adequately address and the Final SEIR fails to adequately respond to comments regarding the inadequacy of the EI's project specific analysis and mitigation of cultural resources, and failure to provide an updated investigation of resources as part of the environmental setting.

- July 26, 2015, DSEIR comment letter from Susan Brandt-Hawley, at FSEIR, Vol.6, p. COM-45-46, CULT-1.

**S. THE OCII'S CEQA FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS ARE PREMATURE AND UNSUPPORTED.**

1. The CEQA Findings adopted by the OCII are premature and unsupported, as explained in the Alliance's comments on the SEIR. The SEIR is defective and cannot be relied upon as an informational document with respect to the analysis and public disclosure of impacts and mitigation measures regarding transportation under CEQA.



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Arena Project**

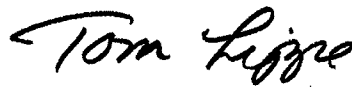
November 13, 2015

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2. Similarly, the Statement of Overriding Considerations is also premature and unsupported, because the OCII's CEQA findings adopted by are premature and unsupported, and without a legally adequate description of the nature and extent of the Project's environmental harm, the OCCI and the City cannot properly weigh whether the Project's benefits outweigh that harm.

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

**List of Exhibits**

- Exhibit 1: Resolution 69-2015, approved by the Commission on Community Investment and Infrastructure on November 3, 2015, certifying the Final Subsequent Environmental Impact Report for the Warriors Arena Project.
- Exhibit 2: Resolution 70-2015, approved by the Commission on Community Investment and Infrastructure on November 3, 2015, making CEQA Findings included in Resolution 70-2015.
- Exhibit 3: Memorandum entitled "Appeal Filing to the Board of Supervisors In Its Capacity as Governing Body of the Successor Agency."
- Exhibit 4: November 10, 2015, letter from Dan Smith to Tom Lippe re Emergency Access.
- Exhibit 5: November 10, 2015, letter from Dan Smith to Tom Lippe re Port Parking Facilities.
- Exhibit 6: November 13, 2015, letter from Dan Smith to Tom Lippe re King Street Electrical.

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**List of Exhibits to November 13, 2015 Letter from Thomas N. Lippe, Law Offices of Thomas N. Lippe, APC Re: Notice of Appeal and Appeal of OCII Resolutions 69-2015 and 70-2015 Re Warriors Arena Project**

Exhibit 1: Resolution 69-2015. (Please see Exhibit C of the Appeal Response Packet for this resolution)

Exhibit 2: Resolution 70-2015. (This resolution is not appealable. This resolution is on file at OCII, and on OCII's website at <http://sfocii.org/warriors-draft>)

Exhibit 3: Appeal Filing to the Board of Supervisors In Its Capacity as Governing Body of the Successor Agency. (This document is on the San Francisco Board of Supervisors' website at <http://www.sfbos.org/>)

Exhibit 4: November 10, 2015 Smith Engineering & Management Letter re Emergency Access. (This letter is included in Exhibit E of this Appeal Response Packet as an attachment to Comment Letter O-MBA27S9)

Exhibit 5: November 10, 2015 Smith Engineering & Management Letter re Port Parking Facilities. (This letter is included in Exhibit E of this Appeal Response Packet as an attachment to Comment Letter O-MBA27S9)

Exhibit 5: November 10, 2015 Smith Engineering & Management Letter re Port Parking Facilities. (This letter is included in Exhibit E of this Appeal Response Packet as Exhibit 6 to Comment Letter O-MBA29L2)



## Exhibit C

# OCII Resolution No. 69-2015 Certifying the Final Subsequent Environmental Impact Report for the Golden State Warriors Event Center and Mixed-Use Development on Blocks 29-32 in Mission Bay South

OCII CASE NO. ER 2014-919-97; PLANNING DEPARTMENT CASE NO. 2014.1441E –  
EVENT CENTER AND MIXED-USE DEVELOPMENT AT MISSION BAY BLOCKS 29-32

CERTIFIED ON NOVEMBER 3, 2015

Edwin M. Lee  
MAYOR

Tiffany Bohee  
EXECUTIVE DIRECTOR

Mara Rosales  
CHAIR

Miguel Bustos  
Marily Mondejar  
Leah Pimentel  
Darshan Singh  
COMMISSIONERS

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**COMMISSION ON COMMUNITY INVESTMENT AND INFRASTRUCTURE**

**RESOLUTION NO. 69-2015**

*Adopted November 3, 2015*

**CERTIFYING THE FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT  
FOR THE GOLDEN STATE WARRIORS EVENT CENTER AND MIXED-USE  
DEVELOPMENT ON BLOCKS 29-32 IN MISSION BAY SOUTH UNDER THE  
CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") AND THE CEQA  
GUIDELINES; MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA**

WHEREAS, The Commission on Community Investment and Infrastructure, ("Commission"), the successor agency to the San Francisco Redevelopment Agency ("Successor Agency"), takes the following certification action in compliance with the California Environmental Quality Act ("CEQA"), the California Public Resources Code Sections 21000 et seq., and the CEQA Guidelines, 14 Cal. Code Reg. Sections 15000 et seq. ("CEQA Guidelines") and acting in its capacity as lead agency under CEQA Section 21067; and,

WHEREAS, On September 17, 1998, the Commission of the former Redevelopment Agency of the City and County of San Francisco ("Redevelopment Commission") by Resolution No. 182-98, and the San Francisco Planning Commission, by Resolution No. 14696, together acting as co-lead agencies for conducting environmental review for the Redevelopment Plans for the Mission Bay North Redevelopment Project Area and the Mission Bay South Redevelopment Project Area (the "Plans"), the Mission Bay North Owner Participation Agreement ("North OPA") and the Mission Bay South Owner Participation Agreement ("South OPA"), and other permits, approvals and related and collateral actions (the "Mission Bay Project"), certified the Final Subsequent Environmental Impact Report ("Mission Bay FSEIR") (State Clearinghouse Number 97092068), as a program EIR for Mission Bay North and South pursuant to CEQA and CEQA Guidelines Sections 15168 (Program EIR) and 15180 (Redevelopment Plan EIR). The Mission Bay FSEIR document provided programmatic environmental review of the overall Mission Bay Redevelopment Plan (consisting of the approximately 300-acre Mission Bay North and South Redevelopment Plan Areas); and,

WHEREAS, On the same day, the Redevelopment Commission adopted Resolution No. 183-98, which adopted environmental findings, including a mitigation monitoring and reporting program ("MMRP") and a statement of overriding considerations, in connection with the approval of the Plans and other Mission Bay Project approvals, and adopted Resolution No. 190-98, approving the Redevelopment Plan for the Mission Bay South Redevelopment Project Area ("Plan") and Resolution No. 193-98 authorizing execution of the South OPA and related documents between the Redevelopment Agency and the Mission Bay Master Developer (originally Catellus Development Corporation and now FOCIL-MB, LLC, the successor to Catellus Development Corporation); and,



WHEREAS, On October 19, 1998, the Board of Supervisors adopted Motion No. 98-132 affirming certification of the Mission Bay FSEIR by the Planning Commission and the Redevelopment Agency, and Resolution No. 854-98 adopting environmental findings, including an MMRP and a statement of overriding considerations, for the Mission Bay Project. On November 2, 1998, the San Francisco Board of Supervisors (“Board of Supervisors”), by Ordinance No. 335-98, adopted the Plans; and,

WHEREAS, On February 1, 2012, state law dissolved the Former Redevelopment Agency and required the transfer of certain of its assets and obligations to the Successor Agency, and on June 27, 2012, state law clarified that successor agencies are separate public entities, Cal. Health & Safety Code §34170 et seq. (“Redevelopment Dissolution Law”); and,

WHEREAS, Redevelopment Dissolution Law required creation of an oversight board to the successor agency and provided that with approval from its oversight board and the State Department of Finance (“DOF”), a successor agency may continue to implement “enforceable obligations” such as existing contracts, bonds and leases, that were executed prior to the suspension of redevelopment agencies’ activities. On January 24, 2014, DOF finally and conclusively determined that the Mission Bay North and South Owner Participation Agreements and Mission Bay Tax Increment Allocation Pledge Agreements are enforceable obligations pursuant to Health and Safety Code Section 34177.5(i); and,

WHEREAS, On October 2, 2012, the Board of Supervisors of the City, acting as the governing body of the Successor Agency, adopted Ordinance No. 215-12 (the “Implementing Ordinance”), which Implementing Ordinance was signed by the Mayor on October 4, 2012, and which, among other matters: (a) acknowledged and confirmed that the Successor Agency is a separate legal entity from the City, and (b) established this Commission and the Office of Community Investment and Infrastructure (“OCII”) and delegated to the Commission the authority to (i) act in place of the Redevelopment Agency Commission to, among other matters, implement, modify, enforce and complete the Redevelopment Agency’s enforceable obligations, (ii) approve all contracts and actions related to the assets transferred to or retained by the Successor Agency, including, without limitation, the authority to exercise land use, development, and design approval, consistent with applicable enforceable obligations, and (iii) take any action that the Redevelopment Dissolution Law requires or authorizes on behalf of the Successor Agency and any other action that this Commission deems appropriate, consistent with the Redevelopment Dissolution Law, to comply with such obligations; and,

WHEREAS, The Board of Supervisors’ delegation to this Commission includes the authority to act as the lead agency that administers environmental review for private projects in Mission Bay North and South Redevelopment Plan Areas in compliance with the requirements of CEQA and the CEQA Guidelines, including CEQA Section 21067; and,



- WHEREAS, The proposed project is the Golden State Warriors Event Center and Mixed-Use Development at Mission Bay South Blocks 29-32, with the MUNI UCSF/Mission Bay Station Variant and the Third Street Plaza variant, and related actions ("Event Center Project" or "Project"), as described in Chapter 3 of the Final Subsequent Environmental Impact Report ("FSEIR"). The Project Sponsor is GSW Arena LLC ("GSW"), an affiliate of the Golden State Warriors, LLC, which owns and operates the Golden State Warriors National Basketball Association team. GSW proposes to construct a multi-purpose event center and a variety of mixed uses, including office, retail, open space, and structured parking on an approximately 11-acre site on Bocks 29-32. The Project site is bounded by South Street on the north, Third Street on the west, 16th Street on the south, and by the future planned realigned Terry A. Francois Boulevard on the east; and
- WHEREAS, In compliance with CEQA and the CEQA Guidelines, OCII determined that the Project required preparation of a Subsequent Environmental Impact Report and OCII provided public notice of that determination to governmental agencies and organizations and persons interested in the proposed project on November 19, 2014, initiating a 30-day public scoping period, which ended on December 19, 2014 and included a public scoping meeting on December 9, 2014.
- WHEREAS, On June 5, 2015, OCII published and circulated the Draft Subsequent Environmental Impact Report (hereinafter "GSW DSEIR") to local, state, and federal agencies and to interested organizations and individuals. In addition, electronic copies of the GSW DSEIR were made available for public review on the OCII website and paper copies of the GSW DSEIR were made available for public review at OCII (1 South Van Ness Avenue, 5th Floor), the San Francisco Planning Department (1660 Mission Street, 1st Floor, Planning Information Counter), the San Francisco Main Library (100 Larkin Street) and San Francisco Library, Mission Bay Branch (960 4th Street).
- WHEREAS, Notices of availability of the GSW DSEIR and of the date and time of the public hearing were posted near the project site and published in a newspaper of general circulation in San Francisco on June 5, 2015.
- WHEREAS, On October 23, 2015, OCII published the Final Subsequent Environmental Impact Report ("FSEIR") for the Event Center Project consisting of the GSW DSEIR, the comments received during the review period, any additional information that became available after the publication of the GSW DSEIR, and the Responses to Comments document, all as required by law, copies of which are available through the Secretary of the Commission and at [www.gsweventcenter.com](http://www.gsweventcenter.com), and are incorporated herein by reference; and,
- WHEREAS, The administrative record that contains the GSW DSEIR, the FSEIR and all documents related to, or relied on in the preparation thereof has been prepared by OCII in accordance with the Jobs and Economic Improvement through Environmental Leadership Act (AB 900). Governor Jerry Brown certified the proposed project as an environmental leadership development project under this Act on April 30, 2015, and on May 27, 2015, the Joint Legislative Budget



Committee concurred with this certification. Therefore, this project is eligible for streamlined judicial review. Project EIR files have been made available for review by the Commission and the public. These files are available for public review at OCII at 1 South Van Ness Avenue, 5th Floor, can be found at [www.gsweventcenter.com](http://www.gsweventcenter.com) and are part of the record before the Commission; now therefore be it,

RESOLVED, The Commission hereby certifies the Final Environmental Impact Report identified as OCII Case No. ER-2014-919-97 (also identified as Planning Department Case No. 2014.1441E and State Clearinghouse No. 2014112045), Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 (hereinafter "Project"), based upon the following findings:

1. The Commission has reviewed and considered the FSEIR and hereby does find that the contents of said report and the procedures through which the FSEIR was prepared, publicized, and reviewed comply with the provisions of CEQA and the CEQA Guidelines.
2. The Commission hereby does find that the FSEIR concerning Case No. ER-2014-919-97, Event Center and Mixed-Use Development at Mission Bay Blocks 29-32, reflects its independent judgment and analysis, is adequate, accurate and objective, and that the Comments and Responses document contains no significant revisions to the GSW DSEIR, and hereby does certify the completion of said FSEIR in compliance with CEQA and the CEQA Guidelines.
3. The Commission, in certifying the completion of said FSEIR, hereby does find that the Project:
  - A. Will have a significant and unavoidable project-specific effect on the environment in the following areas:
    - 1) On days without a SF Giants game at AT&T Park:
      - a) Increased traffic congestion and traffic impacts at seven intersections that would operate at LOS E or LOS F.
      - b) Increased traffic congestion and traffic impacts at one freeway ramp location that would operate at LOS E or LOS F.
      - c) A substantial increase in transit demand that could not be accommodated by regional transit capacity that would result in a significant impact to North Bay and South Bay regional transit service (Caltrain, Golden Gate Transit and Water Emergency Transportation Authority (WETA)).
    - 2) On days with overlapping evening events at the project site and at



AT&T Park:


- a) Increased traffic and traffic impacts at ten additional intersections that would operate at LOS E or LOS F.
  - b) Increased traffic and traffic impacts at three freeway ramp locations that would operate at LOS E or LOS F.
  - c) A substantial increase in transit demand that could not be accommodated by regional transit capacity would result in a significant impact to East Bay, North Bay and South Bay regional transit service (Bay Area Rapid Transit, Caltrain, Golden Gate transit and WETA).
- 3) Without implementation of the Muni Special Event Transit Service Plan:
- a) Increased traffic congestion and traffic impacts at nine intersections that would operate at LOS E or LOS F.
  - b) Increased traffic congestion and traffic impacts at three freeway ramp locations that would operate at LOS E or LOS F.
  - c) Transit service operation impacts on the Muni T Third light rail line and the 22 Fillmore bus route.
  - d) Capacity utilization standard exceedances for Caltrain, Golden Gate Transit and WETA.
- 4) Increased ambient noise levels due to increased vehicular traffic along local roadways in the project vicinity and to crowd noise associated with events at the event center.
- 5) Construction-related emissions of criteria air pollutants (reactive organic gases and nitrogen oxides) that would exceed applicable significance thresholds.
- 6) Long-term operational emissions of criteria air pollutants (ROG and NOx) that would exceed applicable significance thresholds in connection with project operations, from sources including new vehicle trips, maintenance and operation of standby diesel generators, boilers and area sources such as landscape equipment and use of consumer products.
- B. Will result in unavoidable cumulatively considerable contributions to the following significant cumulative effects on the environment:
- 1) During peak hours, cumulative increased traffic congestion and



traffic impacts at 16 intersections that would operate at LOS E or LOS F.

- 2) Cumulative increased traffic congestion and traffic impacts at three freeway ramp locations that would operate at LOS E or LOS F.
  - 3) Cumulative capacity utilization exceedances for BART, Caltrain, Golden Gate Transit and WETA.
  - 4) Increased cumulative roadway traffic noise in the project vicinity.
  - 5) Increased cumulative construction-related and operational emissions of criteria air pollutants that would exceed applicable significance thresholds.
  - 6) Cumulative wastewater flows that could exceed the capacity of the Mariposa Pump Station and associated force mains and conveyance piping, and construction impacts resulting from future construction of improvements to the Mariposa Pump Station and associated facilities to expand wastewater treatment capacity.
4. The Commission has reviewed and considered the information contained in the FSEIR prior to approving the Project.

I hereby certify that the foregoing resolution was adopted by the Commission at its meeting of November 3, 2015.



Commission Secretary





## Exhibit D

### OCII Responses to Late Comments

OCII CASE NO. ER 2014-919-97; PLANNING DEPARTMENT CASE NO. 2014.1441E –  
EVENT CENTER AND MIXED-USE DEVELOPMENT AT MISSION BAY BLOCKS 29-32  
CERTIFIED ON NOVEMBER 3, 2015

#### BACKGROUND

GSW Arena LLC (GSW), an affiliate of Golden State Warriors, LLC, which owns and operates the Golden State Warriors National Basketball Association (NBA) team, proposes to construct a multi-purpose event center and a variety of mixed uses, including office, retail, open space and structured parking on an approximately 11-acre site (Blocks 29-32) within the Mission Bay South Redevelopment Plan Area of San Francisco. The project site is bounded by South Street on the north, Third Street on the west, 16th Street on the south, and by the future planned realigned Terry A. François Boulevard on the east. The proposed event center would host the Golden State Warriors basketball team during the NBA season, as well as provide a year-round venue for a variety of other uses, including concerts, family shows, other sporting events, cultural events, conferences and conventions.

The San Francisco Office of Community Investment and Infrastructure (OCII), as lead agency responsible for administering the environmental review for private projects in the Mission Bay North and South Redevelopment Plan Area of San Francisco, published a Draft SEIR on the project on June 5, 2015, and the 52-day public review period ended on July 27, 2015. OCII prepared a Responses to Comments (RTC) document that provided written responses to all comment received during the public review period as well as to several late comment letters received after the close of the public review period. OCII published the RTC document on October 23, 2015.

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Tiffany Bohee  
EXECUTIVE DIRECTOR

Mara Rosales  
CHAIR

Miguel Bustos  
Marilyn Mondejar  
Leah Pimentel  
Darshan Singh  
COMMISSIONERS

CEQA does not require published responses to any comments received after the close of the public comment period, which ended on July 27, 2015. However, OCII received numerous additional comment letters or emails on the SEIR too late to be responded to in the RTC document, including public testimony at the OCII public hearing on November 3, 2015 (referred to as "Late Comments"). Some of these late comments provide supplemental comments on the Draft SEIR, while some, received after publication of the RTC document, provide comments on the RTC document and Final SEIR. OCII staff presented written responses to the OCII Commission for five of these additional comment letters at the certification hearing on November 3, 2015, and also present oral responses to several of the late comments at the same hearing.

This Exhibit D presents the comments and provides written responses for all of these late comments. It lists all of the substantive issues raised in these late comments and provides written responses to those late comments, using the same format as the RTC document (i.e.,

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comments and responses are organized by topic). Exhibit D includes a verbatim copy of the substantive late comments, with similar comments on the same topic grouped together, followed by a comprehensive response on that topic. Exhibit E contains copies of the additional comment letters and copies of oral comments on the adequacy of the Final SEIR excerpted from the OCII public hearing transcript, with coding in the margin that corresponds to the responses in this exhibit. Due to the volume of late comments and because all substantive comments are reproduced verbatim in Exhibit D, Exhibit E is provided on CD.

This Exhibit D is organized as follows:

- Section 1. List of Persons Submitting Late Comments
- Section 2. Responses to Late Comments on General Topics
- Section 3. Responses to Late Comments on the Environmental Review Process
- Section 4. Responses to Late Comments on the AB 900 Process
- Section 5. Responses to Late Comments on the Project Description
- Section 6. Responses to Late Comments on Plans and Policies
- Section 7. Responses to Late Comments on Archaeological Resources
- Section 8. Responses to Late Comments on Transportation
- Section 9. Responses to Late Comments on Noise
- Section 10. Responses to Late Comments on Air Quality
- Section 11: Responses to Late Comments on Greenhouse Gases Emissions
- Section 12. Responses to Late Comments on Wind
- Section 13. Responses to Late Comments on Recreation
- Section 14. Responses to Late Comments on Utilities
- Section 15. Responses to Late Comments on Biological Resources
- Section 16. Responses to Late Comments on Geology
- Section 17. Responses to Late Comments on Hydrology and Water Quality
- Section 18. Responses to Late Comments on Hazardous Materials
- Section 19. Responses to Late Comments on Alternatives

## **SECTION 1: LIST OF PERSONS SUBMITTING LATE COMMENTS**

Table 1 lists the persons or entities who submitted late comment letters/emails or presented public testimony at the certification hearing critiquing the SEIR. The table also identifies a general summary of the primary issues raised in the late comments and all attachments and exhibits submitted by the commenters. In some cases, the attachments are duplicates of previously submitted comments or contain general information that does not specifically address the SEIR or the project; no specific response is provided for those attachments.



**TABLE 1**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<b>State Agency</b>				
A-Caltrans2	Patricia Maurice, District Branch Chief, Local Development-Intergovernmental Review, State of California Department of Transportation	Letter	11/02/2015	Transportation
A-UCSF2	Lori Yamauchi, Associate Vice-Chancellor, UCSF Campus Planning,	Letter	11/03/2015	Transportation; Exterior Lighting Plan; Utilities and Service Systems (wastewater treatment capacity); MOU regarding gatehouse
<b>Regional/Local Agency</b>				
A-BAAQMD2	Jean Roggencamp, Deputy Air Pollution Control Officer, Bay Area Air Quality Management District	Letter	11/02/2015	Air Quality
A-MTC	Ken Kirkey, Director, Planning, Metropolitan Transportation Commission	Letter	10/30/2015	Consistency with Plan Bay Area; Transportation
<b>Non-Governmental Organizations</b>				
O-MBA14B2	Susan Brandt-Hawley, Brandt-Hawley Law Group, on behalf of Mission Bay Alliance, submitted to OCII <ul style="list-style-type: none"> <li>w/ Attachment of links to various newspaper articles, and UCSF letter</li> </ul>	Letter -	10/13/2015	Alternatives (Pier 80)
O-MBA15S5	Osha R. Meserve, Soluri Meserve, on behalf of Mission Bay Alliance, submitted to OCII <ul style="list-style-type: none"> <li>w/ Attachment from Damian Applied Toxicology, LLC (10/20/2015)</li> </ul>	Letter	10/20/2015	Hazards and Hazardous Materials
O-MBA16S6	Patrick M. Soluri, Soluri Meserve, on behalf of Mission Bay Alliance, submitted to OCII	Letter	11/02/2015	Tiering; AB 900; Greenhouse Gases; Wind and Shadow; Recreation; Geology and Soils; Hydrology and Water Quality; Hazards and Hazardous Materials; Urban Decay; Transportation Mitigation/Funding
	<ul style="list-style-type: none"> <li>Exhibit 1: SCS Engineers</li> </ul>	-	11/02/2015	Greenhouse Gases; AB 900
	<ul style="list-style-type: none"> <li>Exhibit 2: BSK Associates</li> </ul>	-	11/02/2015	Geology and Soils; Hydrology and Water Quality
	<ul style="list-style-type: none"> <li>Exhibit 3: Soluri Meserve letter to DTSC</li> </ul>	-	10/23/2015	Hazards and Hazardous Materials
	<ul style="list-style-type: none"> <li>Exhibit A: BSK Associates</li> </ul>	-	07/22/2015	Hazards and Hazardous Materials [This is same 07/22/15 BSK Associates letter included in O-MBA7S2 Exhibit in the RTC Document]



**TABLE 1 (Continued)**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<i>Non-Governmental Organizations (cont.)</i>				
O-MBA16S6 (cont.)	– Exhibit B: Damian Applied Toxicology, LLC [ <i>same as attachment in O-MBA15S5, above</i> ]	-	10/20/2015	Hazards and Hazardous Materials; [ <i>Exhibit B: 10/20/15 Damian Applied Toxicology, LLC letter is the same as attachment in O-MBA15S5</i> ]
	• Exhibit 4: Philip King, Ph.D.	-	11/02/2015	Urban Decay
	• Exhibit 5: SFMTA spreadsheet: Capital and Operating Cost Estimates for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32	-	10/13/2015	Transportation Mitigation/Funding
	• Exhibit 6: Marin Economic Consulting	-	11/02/2015	Transportation Mitigation/Funding
O-MBA17L5	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to OCII	Letter	11/02/2015	Secondary Use Findings; Lack of Fair Trial; and Sunshine Ordinance
O-MBA18L6	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to OCII	Letter	11/02/2015	Violation of Variance Requirement
O-MBA19B3	Susan Brandt-Hawley, Brandt-Hawley Law Group, on behalf of Mission Bay Alliance, submitted to OCII	Letter	11/02/2015	Consistency with Secondary Use Classification
	• With Attachment of 2005 Resolution of MOU between Redevelopment Agency and UCSF			
O-MBA20L7	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to OCII	Letter	11/03/2015	General; CEQA Process (Noticing); Air Quality/Health Risk; Utilities and Service Systems; Transportation, Hydrology and Water Quality; Biological Resources; and Noise
	• Exhibit A: MR Wolfe and Associates, PC, Attorneys at Law (Comments on Health Risk)	-	11/02/2015	Health Risks
	– Exhibit 1: SWAPE		11/02/2015	Health Risk
	– Exhibit 2: CAPCOA Guidance Document	-	07/2009	Health Risk
	– Exhibit 3: San Luis Obispo Air Pollution Control District Air Quality Handbook	-	04/2012	Health Risks
	– Exhibit 4: Mission Bay Land Use Plan	-	11/2005	--



**TABLE 1 (Continued)**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<i>Non-Governmental Organizations (cont.)</i>				
O-MBA20L7 (cont.)	<ul style="list-style-type: none"> <li>Exhibit B: <ul style="list-style-type: none"> <li>Exhibit 5: Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program Risk Assessment Guidelines</li> </ul> </li> </ul>	-	02/2015	Health Risks
	<ul style="list-style-type: none"> <li>Exhibit 6: Office of Environmental Health Hazard Assessment website page on Air Toxicology and Epidemiology (Adoption of the Revised Air Toxics Hot Spots Program Technical Support Document for Cancer Potency Factors</li> </ul>	-	Accessed 11/02/2015	Health Risks
	<ul style="list-style-type: none"> <li>Exhibit 7: Office of Environmental Health Hazard Assessment website page on Air Toxicology and Epidemiology (Notice of Adoption of Air Toxics Hot Spots Program Risk Assessment Guidelines))</li> </ul>	-	Accessed 11/02/2015	Health Risks
	<ul style="list-style-type: none"> <li>Exhibit 8: Office of Environmental Health Hazard Assessment, excerpt from Technical Support Document for Exposure Assessment and Stochastic Analysis)</li> </ul>	-	08/2012	Health Risks
	<ul style="list-style-type: none"> <li>Exhibit C: Autumn Wind and Associates, Inc.: Comments Regarding Air Quality Impact Analysis and Mitigation (Comments on Air Quality)</li> </ul>	-	10/30/2015	Air Quality
	<ul style="list-style-type: none"> <li>Exhibit D: Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, Public Records Act/ Sunshine Ordinance Request</li> </ul>	-	08/13/15	Sunshine Ordinance
	<ul style="list-style-type: none"> <li>Exhibit E: Email from Thomas Lippe to Christine Lamorena, San Francisco Planning Department, and Sally Oerth, Deputy Director, OCII</li> </ul>	-	09/30/15	Sunshine Ordinance
	<ul style="list-style-type: none"> <li>Exhibit F: Smith Engineering and Management</li> </ul>	-	11/02/15	Transportation
	<ul style="list-style-type: none"> <li>Exhibit G: Larry Wymer and Associates Traffic Engineering</li> </ul>	-	11/2/2015	Transportation
	<ul style="list-style-type: none"> <li>Exhibit H: SWAPE</li> </ul>	-	11/01/2015	Hydrology and Water Quality (potential PCBs in Stormwater)
	<ul style="list-style-type: none"> <li>Exhibit I: BSK Associates</li> </ul>	-	11/02/2015	Hydrology and Water Quality (HYD-3 and HYD-4); and Utilities and Service Systems (UTIL-5, and UTIL-6)
	<ul style="list-style-type: none"> <li>Exhibit J: BSK Associates</li> </ul>	-	11/02/15	Biological Resources



**TABLE 1 (Continued)**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<i>Non-Governmental Organizations (cont.)</i>				
O-MBA20L7 (cont.)	<ul style="list-style-type: none"> <li>Exhibit K: BSK Associates</li> </ul>	-	07/16/15	Biological Resources (Assessment of project site's water and wetland conditions)
	<ul style="list-style-type: none"> <li>Exhibit L: BSK Associates, Draft Waters and Wetlands Delineation Report</li> </ul>	-	10/29/15	Biological Resources (Draft Waters and Wetlands Delineation Report)
	<ul style="list-style-type: none"> <li>Exhibit M: <ul style="list-style-type: none"> <li>Summary of Recent City of San Francisco NPDES Permit Violations</li> <li>Regional Water Quality Board Reports</li> </ul> </li> </ul>	-	Various dates	Hydrology and Water Quality
	<ul style="list-style-type: none"> <li>Exhibit N: State Executive Order W-59-93</li> </ul>	-	08/23/1993	Biological Resources
	<ul style="list-style-type: none"> <li>Exhibit O: State Water Resources Control Board, Effect of SWANCC v. United States on the 401 Certification Program)</li> </ul>	-	01/25/2001	Biological Resources
	<ul style="list-style-type: none"> <li>Exhibit P: State Water Resources Control Board, Guidance for Regulation of Discharges to "Isolated" Waters</li> </ul>	-	01/25/2004	Biological Resources
	<ul style="list-style-type: none"> <li>Exhibit Q: State Water Resources Control Board, Water Quality Order No. 2004-004-DWQ</li> </ul>	-	05/04/2004	Biological Resources
	<ul style="list-style-type: none"> <li>Exhibit R: State Water Resources Control Board, Resolution No. 2008-0026</li> </ul>	-	04/15/2008	Biological Resources
	<ul style="list-style-type: none"> <li>Exhibit S: Frank Hubach Associates (FHA)</li> </ul>	-	11/02/2015	Noise
O-MBA21L8	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to OCII	Email	11/03/2015	Adequacy of Time to Review and Comment on FSEIR/RTC; Violations of NPDES permits
O-MBA22B4	Susan Brandt-Hawley, Brandt-Hawley Law Group, on behalf of Mission Bay Alliance, submitted to OCII	Letter	11/03/2015	Process; Land Use, Alternatives; Cultural Resources
O-MBA23S7	Patrick M. Soluri, Soluri Meserve, on behalf of Mission Bay Alliance, submitted to SFMTA	Letter	11/03/2015	Project Description Assumptions vs. Mitigation Measures
	<ul style="list-style-type: none"> <li>Exhibit 1: Marin Economic Consulting (11/02/15) [<i>same as Exhibit 6 in Letter O-MBA16S6</i>]</li> </ul>	-	11/02/2015	[ <i>Exhibit 1: 11/12/15 Marin Economic Consulting letter is same as Exhibit 6 in Letter O-MBA16S6</i> ]



**TABLE 1 (Continued)**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<i>Non-Governmental Organizations (cont.)</i>				
O-MBA24L9	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to Planning Commission	Letter	11/05/2015	Compliance with D for D; Consistency with Redevelopment Plan; Office space allocation; General Plan consistency; CEQA Findings for General/BAAQMD/ Alternative Site
	<ul style="list-style-type: none"> <li>Exhibit 1: Brandt Hawley Law Group Letter [same as Letter O-MBA19B3]</li> </ul>	-	11/02/2015	[Exhibit 1: 11/02/15 Brandt Hawley Law Group letter is same as Letter O-MBA19B3]
	<ul style="list-style-type: none"> <li>Exhibit 2: Law Offices of Thomas N. Lippe, APC Letter [same as Letter O-MBA18L6]</li> </ul>	-	11/02/2015	[Exhibit 2: 11/02/15 Law Offices of Thomas N. Lippe, APC letter is same as Letter O-MBA18L6]
	<ul style="list-style-type: none"> <li>Exhibit 3: Office Development Annual Limitation ("Annual Limit") Program</li> </ul>	-	undated	
	<ul style="list-style-type: none"> <li>Exhibit 4: BAAQMD Letter [same as Letter A-BAAQMD2]</li> </ul>	-	11/02/2015	[Exhibit 4: 11//2/15 BAAQMD letter is same as Letter A-BAAQMD2]
	<ul style="list-style-type: none"> <li>Exhibit 5: Letter to OCII Executive Director regarding 11/2/15 BAAQMD Letter</li> </ul>	-	11/02/2015	Air Quality
O-MBA25L10	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to San Francisco DPW	Letter	11/06/2015	Request for notice of hearing on Subdivision Application; Compliance with CEQA, Mission Bay Redevelopment Plan, SF General Plan and Proposition M
	<ul style="list-style-type: none"> <li>Exhibit 1: Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance</li> </ul>	-	11/05/2015	[Exhibit 1: 11/05/15 Law Offices of Thomas N. Lippe, APC letter is same as Letter O-MBA24L9]
	<ul style="list-style-type: none"> <li>Exhibit 1: Brandt Hawley Law Group Letter [same as Letter O-MBA19B3]</li> </ul>	-	11/02/2015	[Exhibit 1: 11/02/15 Brandt Hawley Law Group letter is same as Letter O-MBA19B3]
	<ul style="list-style-type: none"> <li>Exhibit 2: Law Offices of Thomas N. Lippe, APC Letter [same as Letter O-MBA18L6]</li> </ul>	-	11/02/2015	[Exhibit 2: 11/02/15 Law Offices of Thomas N. Lippe, APC letter is same as Letter O-MBA18L6]
	<ul style="list-style-type: none"> <li>Exhibit 3: Office Development Annual Limitation ("Annual Limit") Program</li> </ul>	-	undated	[Exhibit 3 is same as Exhibit 3 in as Letter O-MBA24L9]
	<ul style="list-style-type: none"> <li>Exhibit 4: BAAQMD Letter [same as Letter A-BAAQMD2]</li> </ul>	-	11/02/2015	[Exhibit 4: 11//2/15 BAAQMD letter is same as Letter A-BAAQMD2]
	<ul style="list-style-type: none"> <li>Exhibit 5: Letter to OCII Executive Director regarding 11/2/15 BAAQMD Letter</li> </ul>	-	11/02/2015	[Exhibit 5 is same as Exhibit 5 in as Letter O-MBA24L9]



**TABLE 1 (Continued)**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<i>Non-Governmental Organizations (cont.)</i>				
O-MBA26S8	Osha R. Meserve, Soluri Meserve, on behalf of Mission Bay Alliance, submitted to BOS Budget and Finance Committee	Letter	11/09/2015	Project Description Assumptions vs. Mitigation Measures
O-MBA27S9	Patrick M. Soluri, Soluri Meserve, on behalf of Mission Bay Alliance, submitted to Entertainment Commission	Letter	11/10/2015	Consistency with Redevelopment Plan; CEQA compliance; CEQA Findings; Project Description Assumptions vs. Mitigation Measures; Adequacy of Traffic Analysis
	• Attachment: Smith Engineering and Management	-	11/10/15	Transportation (Emergency Vehicle Access)
	• Attachment: Smith Engineering and Management	-	11/10/15	Transportation (Parking)
	• Attachment: Soluri Meserve [same as Letter O-MBA26S8]		11/09/15	[This attachment is same as Letter O-MBA26S8]
	• Attachment: Larry Wymer and Associates Traffic Engineering [same as Exhibit G in Letter O-MBA20L7]	-	11/2/2015	[This attachment is same as Exhibit G in Letter O-MBA20L7]
	• Attachment: Smith Engineering and Management [same as Exhibit F in Letter O-MBA20L7]	-	11/02/2015	[This attachment is same as Exhibit F in Letter O-MBA20L7]
	• Attachment: : Law Offices of Thomas N. Lippe, APC Letter [same as Letter O-MBA10L4]	-	07/27/2015	[This attachment is same as Letter O-MBA10L4]]
O-MBA28L11	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to the San Francisco Board of Supervisors Budget and Finance Committee	-	11/09/15	Compliance with CEQA; CEQA Findings; Compliance with General Plan and Proposition M; Air Quality; Alternatives
	• Exhibit 1: Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to Planning Commission	Letter	11/05/2015	[Exhibit 1: 11/05/15 Law Offices of Thomas N. Lippe, APC letter is same as Letter O-MBA24L9]
	• Exhibit 1: Brandt Hawley Law Group Letter [same as Letter O-MBA19B3]	-	11/02/2015	[Exhibit 1: 11/02/15 Brandt Hawley Law Group letter is same as Letter O-MBA19B3]
	• Exhibit 2: Law Offices of Thomas N. Lippe, APC Letter [same as Letter O-MBA18L6]	-	11/02/2015	[Exhibit 2: 11/02/15 Law Offices of Thomas N. Lippe, APC letter is same as Letter O-MBA18L6]
	• Exhibit 3: Office Development Annual Limitation ("Annual Limit") Program	-	undated	[Exhibit 3 is same as Exhibit 3 in as Letter O-MBA24L9]
	• Exhibit 4: BAAQMD Letter [same as Letter A-BAAQMD2]	-	11/02/2015	[Exhibit 4: 11//2/15 BAAQMD letter is same as Letter A-BAAQMD2]



**TABLE 1 (Continued)**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<b>Non-Governmental Organizations (cont.)</b>				
O-MBA28L11 (cont.)	<ul style="list-style-type: none"> <li>Exhibit 5: Letter to OCII Executive Director regarding 11/2/15 BAAQMD Letter</li> </ul>	-	11/02/2015	[Exhibit 5 is same as Exhibit 5 in as Letter O-MBA24L9]
O-MBA29L12	<ul style="list-style-type: none"> <li>Exhibit 6: Smith Engineering and Management [Exhibit to 11/13/15 Appeal Letter from Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to OCII]</li> </ul>	Letter	11/13/2015	Transportation [Exhibit to 11/13/15 Appeal Letter from Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance]
<b>Individuals</b>				
I-Templeton	John William Templeton	Email with Attachment	11/02/2015	Environmental Justice
<b>Individuals Commenting on the SEIR at the November 3, 2015 OCII Commission Hearing<sup>1</sup></b>				
PH2-Lippe	Thomas Lippe	Transcript	11/03/2015	Land Use; Plans and Policies, Hydrology and Water Quality; Air Quality
PH2-Hawley	Susan Brandt Hawley	Transcript	11/03/2015	Land Use; Plans and Policies
PH2-Templeton	John William Templeton	Transcript	11/03/2015	Environmental Justice

<sup>1</sup> Includes only persons critiquing the SEIR.



## SECTION 2: RESPONSES TO LATE COMMENTS ON GENERAL TOPICS

The comments and corresponding responses in this section address topics that do not relate to any specific section of the SEIR or to the environmental review process, although many of these topics are discussed in RTC document Section 13.2. These topics relate to other aspects of the proposed project that are outside the purview of the California Environmental Quality Act (CEQA). These include topics related to:

- Issue GEN-1: Fiscal Feasibility
- Issue GEN-2: Environmental Justice
- Issue GEN-3: Urban Decay
- Issue GEN-4: Fair Trial

### Issues Raised by Late Commenters on Fiscal Feasibility

This response addresses all or part of the following comments, which are quoted below:

O-MBA16S6-15

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#### Executive Summary

In order for the Golden State Warriors (GSW) to move to San Francisco, the City must make significant infrastructure investments in transit and commit to providing over \$6 million in support each year that the new arena operates. Although estimates of the costs to the City and estimates of City revenues exist, a cash flow analysis of this project has not been produced. Nor has the project been subject to a comparison with plausible alternatives. With a project of this magnitude and with the significant external costs imposed on San Francisco, it is deserving of such an analysis.

This report provides both a cash flow analysis of the arena development and a comparison with a plausible alternative. It also provides a discussion of some of the assumed revenues associated with the project. In particular, the assumptions regarding hotel/motel tax revenues and parking taxes are optimistic. The reality could be millions of dollars less than expected.

Although the cash flow analysis suggests that the project will turn a surplus of revenue in the fourth year of arena operations, a comparison with an alternative development suggests that from a financial perspective the City could do much better. If a biotech facility were constructed in place of the arena, it is possible that City revenues over the course of 22 years (two years of construction and 20 years of operation) could be more than \$39.9 million higher in net present discounted value terms, or \$1.8 million per year over 22 years. This comparison is with a conservative investment. With a more aggressive development option, the net present discounted value of revenues could be as much as \$150 million higher, or nearly \$7 million per year.

It is worth noting that the effective subsidy provided by the City of San Francisco to provide transit infrastructure and traffic mediation amounts to roughly \$150 million over the same 22 years, again in present discounted value terms. Were this subsidy not necessary, the Warriors development project would have a revenue impact to the City comparable to that of the more aggressive development option. Unfortunately, the Warriors development project requires the extensive subsidy while a biotechnology center would not. The biotechnology center, whether using conservative or aggressive assumptions, provides greater net revenues to the City of San Francisco than does the development including the Arena, by between \$1.8 and \$7 million per year.

These figures can be thought of as the amount that San Franciscans are paying to bring the Warriors to town. It is the amount of revenues that the City would forgo with the GSW project, relative to a



plausible alternative. This is not to say that the project is a bad idea, but merely to point out what is being given up in order to accommodate the Warriors' move.

#### **Key Findings**

1. A cash flow analysis of the arena through the first twenty years of operation suggests net revenues for San Francisco of \$96 million. This is net of City expenses of approximately \$150 million during this time for transit and traffic mitigation.
2. A cash flow analysis of the arena through the first twenty years of operation suggests net revenues for San Francisco of \$96 million. This is net of City expenses of approximately \$150 million during this time for transit and traffic mitigation.
3. Although the Arena generates significant revenues for San Francisco, the City's costs will exceed its revenues from the development for at least the first three years of Arena operation, putting the taxpayers on the hook for the difference.
4. There are elements of the estimates of City revenues that are filled with uncertainty. In particular, the hotel/motel and parking revenues are highly speculative. This uncertainty may imply a broader burden for City taxpayers.
5. If hotel/motel revenues are overstated by half, which is possible, that would reduce City revenues by \$13.2 million in the first 20 years of Arena operation.
6. If an alternative development, one suited to biotechnology, were pursued, the City's net revenues would be nearly \$40 million higher and possibly as much as \$150 million higher over 22 years, or \$7 million per year.
7. An alternative development would have considerably larger economic impacts for the rest of the San Francisco Economy than would an arena, and would generate significantly more jobs, more than 2,000 on-site. Oracle Arena currently generates just 494 jobs.
8. An alternative development would generate as much as \$1 billion in direct economic activity on-site and perhaps as much as an additional \$1 billion in ancillary benefits to the broader San Francisco economy.
9. Forgoing the biotechnology development and pursuing the Arena reduces net revenues to the City of San Francisco by \$2 to \$7 million per year.

#### **1: Introduction**

In 2017, the Golden State Warriors are expected to begin playing in San Francisco. Although this is an exciting development for the City of San Francisco, the economics of the Warriors presence in the City are unclear. There are likely to be significant revenue benefits for the City, but welcoming the Warriors will also involve significant infrastructure investments and ongoing expenses for the City and County of San Francisco. The net effects of these revenues and costs have not been adequately addressed.<sup>1</sup>

It is not clear whether San Francisco is importing a lucrative asset or a financial burden; that is, it is not clear whether the revenues associated with the Warriors play in San Francisco exceed the considerable upfront investments that the City must make. It is also an open question as to what exactly the City might be giving up in order to host the Warriors. The 12-acre parcel on which the arena is to be built is a valuable piece of real estate. In 2010, Salesforce paid \$278 million for a 14-acre site that includes the property in question. The property, located as it is across the street from UCSF and near a variety of biotech companies, seems a likely candidate for a biotech friendly building.<sup>2</sup> Were this to happen, it would yield significant benefits for the City. Whether or not these financial benefits exceed those associated with the Warriors is the subject of this report.

The report proceeds to review the costs and benefits associated with the Warriors, as they have been made public. This is followed by an estimate of the likely benefits of a biotech development



occupying the same space. The benefits of the GSW plan are then examined from a perspective of robustness, whether or not they are likely to come to pass.

This report provides a cash flow analysis of the GSW project and compares that analysis with an alternative development that includes a biotechnology-oriented commercial structure in place of the arena. The GSW project is cash flow positive, but not until at least the fourth year of operations. Relative to the alternative development, even after 20 years of operating, the GSW project falls short in terms of net government revenues by approximately \$39.9 million, or \$1.8 million per year over 22 years. Alternative developments, with more aggressive assumptions, though still plausible, suggest that City revenues could increase by as much as \$151.6 million after 22 years, or \$6.9 million per year, without the need for heavy subsidization on the part of the City in the early years. From a purely financial perspective, the GSW project is a significant drain on City revenues relative to what alternative developments might yield.<sup>3</sup>

## 2: Benefits and Costs of Hosting the Warriors

### – Benefits/Revenues

As with any economic activity, there are certainly financial benefits for the City of San Francisco associated with hosting the Warriors. A report has been produced for the City of San Francisco that provides a fiscal analysis of the GSW project.<sup>4</sup> These benefits are derived from one-time revenues from the purchase of the land and arena construction and ongoing benefits associated with the events that the stadium hosts. The ongoing benefits also include revenues from commercial and retail activity built into the project, as well as parking revenues both on-site and off-site and off-site hotel and motel taxes. Table 1 provides a summary of an estimate of those benefits. Annually, stadium, retail, and office operations associated with the development are estimated to provide just over \$14.1 million in revenues to the City of San Francisco.

**Table 1. Summary of San Francisco Revenues from Ongoing Stadium Operations**  
(Thousands of 2014 dollars)

<b>Annual Project-Generated Revenues</b>	<b>General Fund Revenues</b>	<b>Dedicated and Restricted Accounts</b>	<b>All Accounts</b>
<b>Revenues From on-Site Businesses</b>	\$9,626 (84%)	\$1,883 (73%)	\$11,509 (82%)
<b>Revenues From off-Site Hotels and Parking</b>	\$1,887 (16%)	\$714 (27%)	\$2,601 (18%)
<b>Total Annual Project-Generated Revenues</b>	<b>\$11,513 (100%)</b>	<b>\$2,597 (100%)</b>	<b>\$14,110 (100%)</b>

Source: EPS and Keyser Marston Associates

Of these \$14.1 million in revenues, \$11.5 million are associated with the arena and on-site businesses. Although the majority of these revenues accrue to the general fund (\$9.6 million), nearly \$2 million goes directly to dedicated and restricted accounts. At the same time, nearly \$2.6 million are estimated to be from off-site sources, \$714 thousand of which are destined for dedicated and restricted accounts.

Table 2 provides estimates of detailed categories of revenues associated with ongoing economic activity once the development is completed. The largest categories of revenue include the stadium admission tax (\$4.3 million), gross receipts taxes (\$2.5 million) property taxes (\$2.5 million, including both general fund and MTA revenues), hotel/motel or transient occupancy taxes (\$1.7 million), and parking taxes (\$2.4 million). These five categories account for the vast majority of revenues associated with the development.



**Table 2. Details of San Francisco Revenues from Ongoing Stadium Operations  
(2014 dollars)**

Item	Amount
<b>Annual General Revenue</b>	
Property Tax (General Fund)	\$912,000
Property Tax in Lieu of VLF	\$868,000
Sales Tax	\$521,000
Hotel/Motel Tax (General Fund)	\$1,667,000
Parking Tax	\$482,000
Stadium Admission Tax	\$4,336,000
<i>Gross Receipts Tax</i>	
On-site	\$2,431,000
Off-site	\$42,000
Utility User Tax	\$254,000
Subtotal	\$11,513,000
<b>Annual Other Dedicated and Restricted Revenue</b>	
Special Fund Property Taxes (Children's, Library, and Open Space)	\$148,000
Public Safety Sales Tax	\$260,000
San Francisco County Transportation Authority Sales Tax	\$260,000
MTA Parking Tax	\$1,929,000
Subtotal	\$2,597,000
<b>Total Ongoing Revenues</b>	<b>\$14,110,000</b>

Source: EPS, 9/25/15, Table 1

As mentioned, there will also be one-time revenues associated with the construction of the arena and the accompanying office and retail space (Table 3). These benefits amount to just over \$27.6 million, the vast majority of which is associated with the TIDF, or Transportation Impact Development Fee.<sup>5</sup> Another significant source of one-time revenue comes in the form of a Property Transfer Tax, \$4.2 million. Sales taxes and gross receipts taxes collected during construction add another \$5.4 million.

**Table 3. Summary of One-Time Revenues from Stadium Construction  
(2014 dollars)**

Item	Difference
<b>City Fees (per gross building sq. ft.)</b>	
Child Care	\$662,000
Transit Impact Development Fee	\$17,436,000
<b>Other One-Time Revenues</b>	
Sales Taxes During Construction	\$2,355,000
Gross Receipts Tax During Construction	\$2,953,000
Property Transfer Tax from Initial Land Sale	\$4,200,000
<b>Total One-Time Revenues</b>	<b>\$27,605,000</b>

Source: EPS, 9/25/15, Table 2. Revised by Marin Economic Consulting to reflect changes in Table A-6 of the EPS report.

#### **- Costs**

As with the benefits, there are also one-time and ongoing costs. The one-time costs are primarily those associated with enhancing transportation infrastructure and amount to \$55.3 million.<sup>6</sup> These costs include Transit Investments (the purchase of light rail vehicles), the installation of crossovers, the construction of a new center boarding platform, power augments to idling event trains, traffic/signals engineering investments, and a Mariposa Street restriping study.



These expenses are spread out over a four-year period, with the vast majority of expenses occurring in the 2016-17 MTA fiscal year. A major expenditure on light rail vehicles is slated to take place in the 2017-18 FY, when the Event Center begins operating. The costs to MTA are heavily loaded in the early years of the project, before ongoing revenues have begun. Estimated one-time revenues will be available during this time to cover expenses, but they will fall short of the total by approximately \$30.2 million.<sup>7</sup> This difference will be covered by contributions from San Francisco's General Fund, whether all at once or through the financing of these expenditures that are net of revenues.

Table 4 provides the details of the City's estimates of ongoing expenses related to the operation of the Event Center. As of early October, estimated annual net ongoing costs associated with operations at the Event Center amount to \$6.2 million.<sup>8</sup> The vast majority, \$5.1 million, are associated transit costs. It is worth noting that this estimate has decreased by \$0.4 million between May and October of this year. Other expenses are reported as they were presented in May, including nearly \$1 million in additional policing, and \$200 thousand in expenses incurred by DPW.

**Table 4. Ongoing Costs of the Arena (millions of 2014 dollars)**

Agency	May 18 Estimates	October 6 Revisions
SFMTA	\$5.5	\$5.1
SFPD	\$0.9	
DPW	\$0.2	
<b>Total</b>	<b>\$6.6</b>	<b>\$6.2</b>

Source: Golden State Warriors Arena: Event Management  
OCII Commission Presentation, May 18, 2015,  
and MTA, October 6, 2015.

#### – Net Benefits

The project comes with considerable costs and benefits. Both upfront net costs and ongoing net revenues are considerable. It is our view that the original EPS report was incomplete in not considering the implications of the project over time. It failed to provide a comparison of overall costs and benefits associated with the GSW project. The reviewer, Keyser Marston Associates, appeared to agree with the EPS approach, saying that a "cash flow approach is appropriate to evaluate a multi-phase project, which does not apply to this project." We respectfully disagree. There are two stages to this project: first, the one-time infrastructure investments and revenue implications of construction and parcel purchase, and second, the ongoing costs and revenues. The project's benefits to the City come inherently in two stages. If both stages yielded a net benefit, the need for a cash flow approach would not be nearly as acute. As the first stage is significantly negative, the overall net benefits must be evaluated over time in order to properly evaluate the project.

This has not been publicly done. Here, we consider a 20-year period following the construction of the Event Center. Given that many of these revenues accrue many years in the future, it is necessary to discount them to today's dollars. The bottom line is the present discounted value of the net stream of revenues to the City of San Francisco.

Assumptions crucial to the present value discount calculation:

1. Discount Rate: 4.0%
2. Rate of inflation: 2.5% (2% for property taxes, as per Proposition 13)

Table 5 provides an estimate of the present discounted value of net revenues to the City of San Francisco, using estimates from the EPS report of September 25, 2015 and from documents from the City of San Francisco. Once the facility has been operating for 20 years, net revenues are expected to be on the order of \$95.7 million, or approximately \$4.3 million per year over a 22-year period including two years of construction and 20 years of operation. This estimate includes the upfront expenses incurred by the City as well as the ongoing expenses associated with event traffic mitigation.



**Table 5. Net Benefits of GSW Event Center Project over 22 years (Millions of Present Discounted 2014 dollars)**

	Benefits	Costs	Net Benefits
One-Time	\$27.6	\$55.3	-\$27.7
Ongoing	\$221.4	\$98.0	\$123.4
<b>Total</b>	<b>\$249.1</b>	<b>\$153.3</b>	<b>\$95.7</b>

Source: Calculations by Marin Economic Consulting.

The project pencils out as estimated. This calculus, however, begs two important questions:

1. This is a 12-acre plot of land in the middle of a biotechnology hub. Are there better uses for this land from a revenue perspective?
2. Estimating the costs associated with event management is a more certain endeavor than estimating the benefits. How certain is it that the benefits will materialize?

For a project of this magnitude, it is vitally important to evaluate the potential for plausible alternatives to provide more benefits than the project in question. It is also important to consider robustness tests for the revenues in question. Neither of these issues has been publicly addressed. This report will present plausible revenues associated with an alternative development, a space designed with biotech in mind, and will discuss weak points in the revenue estimates presented above.

### 3: On the Economics of Biotech as an Alternative

When evaluating the benefits of an economic endeavor, an exploration of alternatives is vital to understanding the full implications of an investment. Suppose that instead of building a 750,000-square-foot arena, the amount of commercial space on the property were doubled. In this section, we consider such an investment. In this exercise, we follow as closely as possible the assumptions contained in the EPS estimate of revenues associated with the GSW project.

Important assumptions associated with this analysis include:

1. Instead of a 750,000-square-foot arena, a commercial facility is constructed that provides 522,000 square feet of space. This constitutes an exact doubling of the commercial space in the GSW plan. This alternative development is otherwise comparable to the Warriors plan, including the original commercial, retail, and parking structures.
2. The space is designed with biotechnology in mind, which brings with it significant laboratory space. As such, it has a relatively high amount of space per worker associated with it: 250 square feet per employee.<sup>9</sup>
3. The transaction price for the land is unchanged at \$172.5 million.<sup>10</sup>
4. It is assumed that just two-thirds of the biotech revenues generated onsite are subject to gross receipts taxation in San Francisco.<sup>11</sup>
5. It is also assumed that a commercial facility would have ancillary benefits in terms of indirect and induced economic activity in San Francisco. Consistent with the EPS report, it is assumed that 90% of the ancillary output generated is subject to the Gross Receipts Tax.<sup>12</sup>

With the addition of these assumptions, an exercise analogous to that undertaken by EPS is performed for the new development. The new development includes the same retail revenues and costs, the same parking revenues, and essentially double the revenues associated with commercial development. Doubling the office space and maintaining other assets leads to an assessed value of at least \$605.5 million. This is considerably less than the project's assessed value with an arena.

Support for the notion that this construction is feasible comes not only from the 750,000-square-foot arena that the buildings will be replacing, but also from a similar planned development. UCSF was planning to build 500,000 square feet on four acres of blocks 33-34, right next to the site.<sup>13</sup> A new



building of the size being considered is clearly feasible on the space currently to be occupied by the arena.

Table 5 presents a comparison of the one-time revenues and expenditures associated with the Event Center versus doubling the commercial space on the 12-acre property. While the Event Center brings with it a need for considerable infrastructure to accommodate the development, it is not clear that a doubling of the commercial space does. Accordingly, the Event Center brings with it a net upfront cost of \$37.5 million, relative to a commercial facility in place of the Center.

**Table 5. Summary of One-Time Revenues from Development**

(Thousands of 2014 Dollars)

Category	Biotech	GSW Arena	Difference
Property Transfer Tax	4,200	4,200	0
City Fees - TIDF	10,902	17,436	-6,534
- Child Care	1,263	662	601
Construction			
- Sales Taxes	1,617	2,354	-737
- Gross Receipts Taxes	2,028	2,953	-925
<b>Total</b>	<b>20,010</b>	<b>27,605</b>	<b>-7,595</b>
<b>One-Time Expenses Associated with Development</b>			
Infrastructure Improvements	10,901	55,308	-44,407
<b>Net One-Time Revenues Associated with Development</b>			
Immediate Net Revenue Impact	9,108	-28,410	37,518

Source: EPS Report (9/25/15) and calculations by Marin Economic Consulting.

Although capital expenditures related to the Event Center are significantly higher than the revenues brought in through the TIDF, such is not expected to be the case for additional commercial space. The TIDF was put in place with developments such as this alternative in mind. Therefore, the transit costs associated with the development are better approximated using the TIDF taxation formula. The TIDF collected from the hypothetical alternative development (including the commercial, retail and parking in the GSW project) will serve as our estimate of related transit costs, \$10,901.

In the analysis above, the sales price for the property on which the event center and accompanying commercial and retail structures will be built is the same as in the EPS report: \$172,546,000. Property transfer tax would result regardless of the purchaser and the end use, but conceivably at a higher price. Salesforce originally paid \$278 million dollars for 14 acres (including the space in question) in 2010. The current sales price is \$172.5 million for 12 acres (actual is \$150 million). The plot of land in question represents the majority of the plot originally purchased by Salesforce, and is the largest single contiguous piece. Property values have also increased substantially since the original purchase by Salesforce.<sup>14</sup> It seems likely then that the value of the land would have increased significantly over the last five years as San Francisco is currently starved for commercial real estate. In the end, the price that the Warriors have paid for the land is surprisingly low. It represents the bulk of a property that was valued at \$278 million in 2010 and market values have only increased in the intervening years. Therefore, the actual market value of the land may well be higher than the price the Warriors have been offered and have paid, with correspondingly higher transfer taxes resulting from some alternative development.

Table 6 provides an analysis of the annual City revenues and expenses that can be attributed to each of the projects.<sup>15</sup> The first column is for the alternative development which targets the biotechnology industry. The second column reflects estimates regarding the current Golden State Warriors project, and the final column presents the difference in expected revenue between the two.



**Table 6. Summary of Annual Revenues and Expenses (in Thousands of 2014 Dollars)**

Category	Biotech	GSW Arena	Difference
<b>Annual Direct General Revenue</b>			
Property Tax (General Fund)	\$603	\$912	-\$309
Property Tax in Lieu of VLF	\$570	\$868	-\$298
Sales Tax	\$253	\$521	-\$268
Hotel/Motel Tax (General Fund)	\$0	\$1,667	-\$1,667
Parking Tax	\$243	\$482	-\$239
Stadium Admission Tax	\$0	\$4,336	-\$4,336
Gross Receipts Tax			
On-site	\$4,078	\$2,431	\$1,647
Off-site	\$0	\$42	-\$42
Utility User Tax	\$249	\$254	-\$5
<b>Subtotal</b>	\$5,996	\$11,513	-\$5,517
<b>Annual Other Dedicated and Restricted Direct Revenue</b>			
Special Fund Property Taxes (Children's, Library, and Open Space)	\$98	\$148	-\$50
Public Safety Sales Tax	\$127	\$260	-\$133
San Francisco County Transportation Authority Sales Tax	\$127	\$260	-\$133
MTA Parking Tax	\$971	\$1,929	-\$958
<b>Subtotal</b>	\$1,322	\$2,597	-\$1,275
<b>Total Revenues</b>	\$7,318	\$14,110	-\$6,792
<b>Annual Development-Related Expenses</b>			
SFMTA	\$0	\$5,100	-\$5,100
SFPD	\$0	\$900	-\$900
DPW	\$0	\$200	-\$200
<b>Total Expenses</b>	\$0	\$6,200	-\$6,200
<b>Net Annual Revenues</b>	\$7,318	\$7,910	-\$592
<b>Ancillary Benefits Associated with Each Project</b>			
Gross Receipts Tax	\$754	\$0	\$754
<b>Total Annual Net Revenue Expectation</b>	\$8,071	\$7,910	\$162

Source: EPS Report and calculations by Marin Economic Consulting.

In most categories, the annual revenues are greater for the Event Center than for a development with additional commercial space. The exception is in the Gross Receipts Taxes, where a biotech firm occupies the additional commercial space. Taken as a whole, annual revenues from a purely commercial development are \$6.8 million less than for the project under consideration. Once the expenses related to the activities at the Event Center are taken into consideration, annual net revenues are nearly identical. However, expanding the commercial element of the development has considerable ancillary benefits. Most economic functions both make purchases from the broader economy and also compensate workers, who then in turn make purchases from the broader economy. The gross receipts taxes associated with output in the San Francisco economy that is related to activities in the additional commercial space are estimated to be \$754,000 per year.<sup>16</sup> Once these benefits have been considered, the commercial development results in \$162,000 more in revenues annually than would the arena (last line of Table 6). From a net revenue perspective, a commercial development dominates the Event Center.

As discussed above, merely calculating the one-time costs and an estimate of the ongoing revenue is insufficient. Were it sufficient, a commercial project focused on biotech would clearly dominate the current project. Table 7 provides an evaluation of the 22-year net benefits of an alternative development with space devoted to biotechnology comparable to the evaluation for the current project.



**Table 7. Net Benefits of Alternative Developments after 22 Years**  
(Millions of Present Discounted 2014 Dollars)

	Biotechnology		Net Benefits		
	Benefits	Costs	Biotech	GSW	Difference
One-Time	\$20.0	\$10.9	\$9.1	-\$27.7	\$36.8
Ongoing	\$126.5	\$0.0	\$126.5	\$123.4	\$3.1
<b>Total</b>	<b>\$146.5</b>	<b>\$10.9</b>	<b>\$135.6</b>	<b>\$95.7</b>	<b>\$39.9</b>

Source: Calculations by Marin Economic Consulting

According to these calculations, an alternative development would provide an extra \$39.9 million in revenues for the City of San Francisco (as in Table 7). Net present discounted revenues for the project with an Event Center are \$95.7 million, while a project with commercial space devoted to attracting biotechnology firms has a discounted value of net revenues expected to be \$135.6 million, a difference of \$39.9 million dollars, or an additional \$1.8 million each year on average over the 22 years.

From a cash flow perspective, there is a deep hole early on with the Event Center. The first three columns of Table 8 present annual present discounted flows of revenues into San Francisco City coffers. The final three columns provide a cash flow, or cumulative contribution to City coffers. Several things are immediately apparent from the table:

1. The Event Center puts an enormous hole in the City's budget in the first year (row 1, column 4).
2. Substituting a commercial development is cash flow positive in the first year (row 3, column 5).
3. It will take four years of operation of the Event Center to dig the City out of the hole (column 6).
4. Although the gap in annual discounted net revenue closes over time, it remains significant even in year 20 (last row, column 4).
5. In year 20 of Event Center operations, there remains a surplus of revenue in the amount of \$39.9 million for the biotechnology development (last row, last column), which continues to grow in subsequent years.

A final issue that differentiates a biotechnology-centric development over an arena is one of economic impact. It is clear from the economics literature that sports stadiums and arenas provide little economic boost to the local economy. At the same time, it is clear that these facilities are responsible for generating some local economic activity. The failure to add to a region's economy is because they tend to displace other entertainment purchases from the broader economy rather than to stimulate new spending. An individual may go to a basketball game instead of to a play, opera, symphony, or rock concert. These facilities are therefore not additive to the economy.

Nonetheless, it has been estimated that economic activity associated with Oracle Arena accounts for \$44.9 million in economic Activity and 494 jobs in Alameda County.<sup>17</sup> It seems likely that the impact of the new arena will be of a similar magnitude.

By comparison, a 522,000 square foot biotechnology facility, with a ratio of space to employee of 250 to 1 can accommodate more than 2,000 employees. That represents four times more employment for biotechnology than for the Arena. It is also consistent with an estimate of economic output on the order of \$1 billion, an order of magnitude higher than for the Arena. Accordingly, the biotechnology development can serve as a much more significant engine of economic growth for the region than can the new event center. Ancillary (indirect and induced) economic benefits for the City of San Francisco are estimated to similarly be in excess of \$1 billion. The gross receipts tax implications for the City of San Francisco are conservatively estimated to be \$754,000 per year.<sup>18</sup>



**Table 8. Stream of Net Revenues over Time**  
(Thousands of 2014 Discounted Dollars)

Year	Annual			Cumulative		
	Biotech	GSW	Difference	Biotech	GSW	Difference
<b>One-Time Net Revenues:</b>						
2016	\$9,108	-\$27,704	\$36,812	\$9,108	-\$27,704	\$36,812
<b>Start of Ongoing Revenues:</b>						
2017	\$7,600	\$7,440	\$160	\$16,708	-\$20,264	\$36,972
2018	\$7,450	\$7,290	\$160	\$24,158	-\$12,974	\$37,132
2019	\$7,302	\$7,142	\$160	\$31,460	-\$5,831	\$37,292
2020	\$7,157	\$6,998	\$159	\$38,618	\$1,167	\$37,451
2021	\$7,016	\$6,857	\$159	\$45,633	\$8,024	\$37,609
2022	\$6,877	\$6,718	\$158	\$52,510	\$14,742	\$37,768
2023	\$6,740	\$6,583	\$157	\$59,250	\$21,325	\$37,925
2024	\$6,607	\$6,450	\$157	\$65,857	\$27,775	\$38,082
2025	\$6,476	\$6,320	\$156	\$72,333	\$34,095	\$38,238
2026	\$6,348	\$6,192	\$155	\$78,681	\$40,288	\$38,393
2027	\$6,222	\$6,068	\$154	\$84,903	\$46,355	\$38,547
2028	\$6,099	\$5,945	\$154	\$91,001	\$52,300	\$38,701
2029	\$5,978	\$5,825	\$153	\$96,979	\$58,126	\$38,854
2030	\$5,860	\$5,708	\$152	\$102,839	\$63,834	\$39,006
2031	\$5,744	\$5,593	\$151	\$108,583	\$69,427	\$39,157
2032	\$5,630	\$5,480	\$150	\$114,213	\$74,907	\$39,307
2033	\$5,519	\$5,370	\$149	\$119,732	\$80,277	\$39,456
2034	\$5,410	\$5,262	\$148	\$125,142	\$85,538	\$39,603
2035	\$5,303	\$5,156	\$147	\$130,444	\$90,694	\$39,750
<b>Year 20 of Event Center operation:</b>						
2036	\$5,198	\$5,052	\$146	\$135,642	\$95,746	\$39,896

Source: Marin Economic Consulting

#### 4: Questioning the Benefits and Costs of the GSW Project

There are few guarantees with economic endeavors. Assuming that the conditions that exist today will exist tomorrow, the day after that, or 20 years from now is of dubious merit. Conditions change. The level of success of a basketball team ebbs and flows (though hopefully not for the Warriors), the economy grows and shrinks, modes of transportation change, and the availability of hotel rooms may decline as demand grows but supply does not.

This certainly holds true for the construction of an arena. While it is quite likely that the Warriors will play at the arena for the foreseeable future and experience a high level of success for some time, it is not certain that the estimated revenues will materialize. As a case in point, the EPS study assumes a sales price for the land of \$172,546,000. It has just been announced that the sales price was \$150,000,000. That represents a reduction in sales price of 13%, with a corresponding reduction in revenues that are tied to the sales price: transfer taxes and ongoing property taxes. Although the long-term implications of a decline in ongoing property taxes is likely small, the transfer tax is reduced from \$4.2 million to \$3.65 million, a reduction in one-time revenues of \$549,000. Granted, this is just one percent of the one-time transit costs associated with the project, but it is more than half a million dollars no longer available for other city needs.

Two categories of revenue are particularly suspect: hotels and parking. With regard to hotels, it is not immediately clear that moving the venue from Oakland to San Francisco will necessarily lead to a significant increase in demand for hotel rooms in San Francisco. With regard to parking, the demand for parking ebbs and flows with the economy. It is also likely that demand for parking will decline



significantly in the coming years. Estimates included in the EPS report are therefore likely biased upward and those revenues will not fully materialize.

#### **– Hotel/Motel Occupancy Tax**

There are primarily two concerns related to forecasts of increased demand for hotel rooms in San Francisco resulting from the construction of the Event Center. First, San Francisco hotel occupancy rates for much of the year are very high, implying little excess capacity to be filled by basket-ball fans. During times of high demand for hotel rooms in San Francisco, many of those staying overnight for an event at the arena may choose to stay outside of the City. Alternatively, the demand resulting from arena events may well divert others to hotel rooms outside of the City. Second, it is also likely that many overnight visitors for the Warriors games currently stay in San Francisco, despite attending a game played in Oakland. Despite the change of venue to San Francisco, it is not clear that this shift will result in a significant net increase in demand for San Francisco hotel rooms.

The EPS estimates of revenues associated with the GSW project indicate an increase in hotel room occupancy. However, San Francisco is generally regarded as having a significant shortage of hotel rooms and to be operating near full capacity. Indeed, occupancy rates for San Francisco are high by any standard. San Francisco ranks third nationally in occupancy rates; New York is ranked #1.

The EPS report assumes that 10% of Event Center attendees are potential overnight visitors but that only half of them will constitute new demand for hotel rooms in San Francisco. This assumption represents an increase in demand for hotel rooms of approximately 50,000. However, it is likely that many current overnight visitors to Oracle Arena stay in San Francisco. It is entirely possible that a new arena will have a much smaller net impact on the demand for hotel rooms in San Francisco. This puts some \$1.7 million in expected additional revenues in question. If half of this demand does not materialize, or is displacement of other demand for hotel rooms in the City, this could reduce overall revenues by half, or by \$800,000 to \$900,000 in each year of operation, amounting to more than \$13 million in present discounted terms over 20 years of arena operation.

#### **– Parking**

Going forward, the use of personal vehicles and hence the demand for parking, as well as transit services, is going to be subject to significant disruption. In particular, ride-sharing services continue to grow, especially in San Francisco. With the use of these vehicles, the demand for parking at an event site will likely decline. There is also growing evidence that autonomous vehicles will be available in the near future. Several automobile and tech companies have announced a target date of 2020 for making these cars, or cars with this capacity, available to the general public. The growth of ride-sharing and the development of autonomous vehicles will likely reduce the demand for parking, particularly the demand related to attending events. The advent of autonomous cars being used in car-sharing will significantly increase the rate at which parking demand declines. Current estimates are that the Event Center will result in the demand for parking spaces on the order of 422,000 per year. Some of this demand for parking is likely to evaporate over time.

There could also be a significant decline in the demand for public transportation resulting from increased car-sharing. This has several implications. First, planned investments in infrastructure designed to expand transit availability to serve events may be rendered to some extent obsolete as people move away from transit and toward the use of autonomous vehicles, whether shared or privately owned. This represents a move away from transit toward private vehicles. Despite the projected decline in parking demand, this represents increased need for traffic mitigation of some sort. There will likely be an increase in vehicular traffic to and from the Event Center that could have implications for the arena's neighbors.

With the advent of autonomous vehicles and greater use of ride-sharing services, it is possible that demand for parking could decline significantly over the coming years. If we assume that it declines at a rate of 1% each year, that would reduce revenues associated with parking by \$3.8 million over the 20-year time horizon. It will also reduce parking demand for a biotechnology development, but by less, just \$1.9 million over 20 years. Should parking demand decline more quickly (5%/year), revenues could decline by as much as \$15 million



**– Net Benefits**

The point of this discussion is that estimated revenues are suspect, while estimated costs are much more likely accurate. Fixed investments, in particular, are known and not subject to market whims. However in this case, there are unknowns lurking in the cost estimates. It is likely that the revenue implications are biased high, resulting in uncertainty over their future stream with more downside risk than upside. It is already the case that actual one-time revenues have turned out to be less than anticipated (such as the transfer tax, which was lower by \$549,000) and that the City has revised its estimates of one-time costs upward (by nearly \$16 million) and its estimates of ongoing expenses upward (by \$1.4 million in each year). Clearly, there is great uncertainty in almost all of these estimates.

**5: Some Sensitivity Analysis**

In each case, the revenue estimates relating to the GSW project and the revenue estimates relating to a biotechnology center are uncertain. It is therefore worthwhile to experiment with basic assumptions to better understand the implications for City revenues. Table 9 offers some evidence for the implications of particular assumptions. We provide four separate alternatives that relax in different ways the assumptions inherent in the baseline analysis. The top line of the table presents the baseline results of the analysis, the estimates of present discounted net revenues accruing to the City (corresponding to the last row in Table 7). In the case of the biotechnology development net present discounted revenues are \$135.6 million whereas they are just \$95.7 million for the GSW project, a difference of \$39.9 million.

**Table 9. Summary of Net Present Discounted Value Associated with Alternatives (22 Years, 2015-2036)  
Comparing the Multi-Purpose Venue with a Biotechnology Center (Millions)**

Item	Biotech	GSW	Difference	
			Over 22 Years	Per Year
Baseline	\$135.6	\$95.7	\$39.9	\$1.8
Alternative 1	\$135.6	\$82.6	\$53.1	\$2.4
- Hotel/Motel Revenues are overstated by 50% in EPS report		<i>OverBaseline :</i>	\$13.2	
Alternative 2	\$147.0	\$95.7	\$51.2	\$2.3
- Area to employee ratio for Biotech of 200/1		<i>OverBaseline :</i>	\$11.3	
Alternative 3	\$154.5	\$95.7	\$58.7	\$2.7
- Add 200,000 sq ft to New Commercial Space (722,000 total)		<i>OverBaseline :</i>	\$18.0	
Alternative 4 (Extreme)	\$234.2	\$82.6	\$151.6	\$6.9
- Area to employee ratio for Biotech of 150/1		<i>OverBaseline :</i>	\$111.7	
- 100% of Biotech revenues are subject to GRT				
- Hotel/Motel Revenues are overstated by 50%				
- Add 200,000 sq ft to New Commercial Space (722,000 total)				

Source: Marin Economic Consulting

The first alternative scenario assumes that one-half of the demand for hotel rooms in San Francisco fails to materialize with the GSW project. This results in a reduction of approximately \$13.2 million in net present discounted revenues. The revenues associated with the biotechnology development are unchanged because there are no transient occupancy tax revenues assumed to occur.

The second alternative assumes a greater density of employment in the new commercial facility, leaving the existing commercial plans constant. If there are 200 square feet per employee, rather than 250, revenues associated with the new facility increase by more than \$11.3 million relative to the baseline. This increase in revenue stems largely from an increase in the output produced by the building's occupants, resulting in increased gross receipts tax revenues. It also increases the occupants interactions with the broader San Francisco economy, having a positive impact on ancillary benefits. Further reducing the space per employee will have correspondingly larger increases in revenues.



A third alternative assumes a larger facility is constructed, with 722,000 square feet of space rather than 522,000 square feet of space. This increases the number of employees working in the space by nearly 40%, holding the assumption that 250 square feet per employee is required. With greater space comes increased employment and increased output and increased demand for the output of the rest of the San Francisco economy. Accordingly, revenues are estimated to increase by nearly \$18.0 million with an expanded space. Under this scenario, the net discounted value of City revenues increases by \$58.7 million relative to the GSW project. Even larger spaces would have a correspondingly larger impact on City revenues.

Finally, an extreme alternative is offered. Alternative 4 allows for a 150 to 1 ratio of square feet to employees, assumes that all of the revenues accruing to the biotech occupants are subject to the GRT, reduces by one-half assumed hotel/motel TOT revenues associated with the Event Center, and involves a building with 722,000 square feet. Under this alternative, City revenues increase by \$111.7 million relative to the baseline, with biotechnology revenues exceeding GSW revenues by nearly \$151.6 million over 22 years and \$6.9 million per year.

These alternatives are not put forward to suggest that there is \$151.6 million being left on the table (though there may be), but rather to illustrate the range of differences that underlying assumptions can make. At the same time, even the extreme alternative is plausible.

#### **6: Re-Evaluating the Net Benefits of Hosting the Warriors**

There are two fundamental points made in this report:

1. Estimates of costs and revenues are highly speculative, and the evidence suggests that there is more downside risk to the GSW project than upside.
2. There is significant revenue that is forgone by the City in order to bring the Warriors to town.

Both of these points raise significant questions about the Warriors arena project from a financial perspective. First, how comfortable are taxpayers in their understanding of the implications of this development? Second, is this the right development?

The respective answers are "not very" and "quite possibly no." There is uncertainty in the information available and replacing the Event Center in the project with additional commercial space has the potential to increase City revenues significantly.

Another way of thinking about the differences in revenues between the GSW project and a biotechnology development is that these differences reflect the price the City is paying in order to bring the Warriors to town. There are certainly other more tangible costs, but these costs are also real.

The above analysis indicates that even with relatively conservative assumptions, in particular those surrounding employment in the new development and the size of the new development, a biotechnology center would increase City revenues significantly relative to the Event Center. Under the baseline scenario, the difference is \$39.9 million over 22 years. Under the most extreme, yet plausible, scenario presented, an additional \$151.6 million could be raised over the 22-year period. This analysis presents a range of increases of between \$1.8 and \$6.9 million per year. It should be noted that the extreme alternative does not include the possibility of a larger facility. Were it to do so, the forgone annual revenues would be significantly higher. This suggests that the City of San Francisco is likely paying more than \$1.8 million and possibly upwards of \$7 million per year in forgone revenues in each of the next 22 years to accommodate the Warriors.

Every economic development represents a choice. That choice is between the proposed development and plausible alternatives. The City has chosen to pursue a basketball team without exploring or disclosing the relative merits of the project compared with plausible alternatives. This report is not designed to condemn the choice, but rather to better inform the debate on the implications of this choice.



**APPENDIX: Details of Annual Revenue Calculations for Biotech in Comparison with the Warriors Project**

This appendix provides tables illustrating key differences in the assumptions and results between the analysis presented in the EPS report of 9/25/15 and the biotechnology project discussed in the text. The tables very closely mirror those in the EPS report and reproduce assumptions and results from that report. Some tables are not applicable to the biotechnology project and are omitted. In particular, Tables A-9 through A-11 are omitted. It should also be noted that these tables have not been updated to reflect the actual purchase price paid by the Warriors. It does, however, include updates to the City's estimates of one-time and ongoing costs.

**Table A-1. San Francisco Revenue Summary (Thousands of 2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	GSW	Biotech	Difference
<b>Annual General Revenue</b>			
Property Tax (General Fund)	\$912	\$603	-\$309
Property Tax in Lieu of VLF	\$868	\$570	-\$298
Sales Tax	\$521	\$253	-\$268
Hotel/Motel Tax (General Fund)	\$1,667	\$0	-\$1,667
Parking Tax	\$482	\$243	-\$239
Stadium Admission Tax	\$4,336	\$0	-\$4,336
<i>Gross Receipts Tax</i>			
On-site	\$2,431	\$4,078	\$1,647
Off-site	\$42	\$0	-\$42
Utility User Tax	\$254	\$249	-\$5
Subtotal	\$11,513	\$5,996	-\$5,517
<b>Annual Other Dedicated and Restricted Revenue</b>			
Special Fund Property Taxes (Children's, Library, and Open Space)	\$148	\$98	-\$50
Public Safety Sales Tax	\$260	\$127	-\$133
San Francisco County Transportation Authority Sales Tax	\$260	\$127	-\$133
MTA Parking Tax	\$1,929	\$971	-\$958
Subtotal	\$2,597	\$1,322	-\$1,275
<b>TOTAL REVENUES</b>	<b>\$14,110</b>	<b>\$7,318</b>	<b>-\$6,792</b>

Source: EPS and Marin Economic Consulting

**Table A-2. San Francisco City One-Time Fee Revenue Summary (2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	GSW	Biotech	Difference
New Gross Building Area (sq.ft.)		1,156,500	
<b>City Fees (per gross building sq.ft.)</b>			
Child Care	\$661,870	\$1,263,240	\$601,370
Transit Impact Development Fee	\$17,435,765	\$10,901,655	-\$6,534,110
<b>Total Development Impact Fee</b>	<b>\$18,097,635</b>	<b>\$12,164,895</b>	<b>-\$5,932,740</b>
<b>Other In-Lieu Impact Fees</b>			
<b>Other One-Time Revenues</b>			
Sales Taxes During Construction	\$2,354,634	\$1,617,159	-\$737,475
Gross Receipts Tax During Construction	\$2,953,050	\$2,027,835	-\$925,215
Property Transfer Tax from Initial Land Sale	\$4,200,000	\$4,200,000	\$0

Source: EPS and Marin Economic Consulting

Note: The gross building area for the biotechnology development includes four commercial buildings with 1,044,000 square feet and retail of 112,500 square feet.



**Table A-3. San Francisco Property Tax Estimates (2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Biotech	Difference
<b>Secured Assessed Value</b>				
Multi-Purpose Venue		\$550,000,000	\$0	\$550,000,000
Other Development				
Event Management/Team Operations Space		\$14,500,000	\$0	\$14,500,000
Retail		\$41,343,750	\$41,343,750	\$0
Office		\$302,760,000	\$605,520,000	-\$302,760,000
Parking		\$33,250,000	\$33,250,000	\$0
Subtotal		\$941,853,750	\$680,113,750	\$261,740,000
<b>New Taxable Value</b>				
Gross Secured Possessory Interest/Property Tax	1.0% of new AV	\$9,418,538	\$6,801,138	\$2,617,400
Unsecured Tax from the Warriors		\$183,333	\$0	\$183,333
Unsecured Tax from Other Uses		\$391,854	\$0	\$391,854
Subtotal		\$9,993,725	\$6,801,138	\$3,192,587
(less) Existing Taxes		-\$1,795,169	-\$1,795,169	\$0
Total		\$8,198,556	\$5,005,969	\$3,192,587
<b>Property Tax</b>				
Tier 1 Property Tax Pass Through	20.00%	\$1,639,711	\$1,001,194	\$638,517
Tier 2 Property Tax Pass Through	16.8%	\$1,377,357	\$841,003	\$536,355
Tier 1 and 2 Property Tax Pass Throughs	36.80%	\$3,017,068	\$1,842,196	\$1,174,872
Net New General Fund Share (after ERAF)	55.59% property tax tier 1 pass through	\$911,515	\$556,564	\$354,952
Special Funds	9.00% property tax tier 1 pass through	\$147,574	\$90,107	\$57,467
SF Unified School District	7.70% property tax pass through	\$232,314	\$141,849	\$90,465
Affordable Housing Set Aside		\$1,639,711	\$1,001,194	\$638,517

Source: EPS and Marin Economic Consulting

**Table A-4. Property Tax in Lieu of VLF Estimates (2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	GSW	Biotech	Difference
Citywide Total Assessed Value (millions \$)	\$172,489	\$172,489	
Total Assessed Value of Project (millions of \$)	\$941.85	\$680.11	\$261.74
(less) Existing Value	-\$179.52	-\$179.52	
Net Increase in Project Assessed Value (millions \$)	\$762.34	\$500.59	\$261.75
Growth in Citywide AV due to Project	0.442%	0.290%	
Total Property Tax in Lieu of Vehicle License Fee (VLF) (FY2014-15)	\$196,480,000	\$196,480,000	
<b>New Property Tax in Lieu of VLF</b>	<b>\$868,372</b>	<b>\$570,220</b>	<b>\$298,152</b>

Source: EPS and Marin Economic Consulting

**Table A-5. Property Transfer Tax (2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Biotech
One-Time Transfer Tax			
Estimated Land Sale		\$172,546,000	\$172,546,000
<b>One-Time Transfer Tax</b>	<b>\$24.34 per \$1,000 value</b>	<b>\$4,199,770</b>	<b>\$4,199,770</b>

Source: EPS and Marin Economic Consulting

Note: The actual transaction price for the property is \$150 million.



**Table A-6. Sales Tax Estimate (thousands of 2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Biotech	Difference
<b>Taxable Sales from Multi-Purpose Venue</b>				
Warriors Game Concessions and Merchandise	\$21.60 per attendee	\$15,768		
Other Event Concessions	\$11.00 per attendee	\$12,859		
Total		\$28,627		
Sales Tax to General Fund	1.0% of taxable sales	\$286		
(less) Existing Sales Shift		-\$18		
Net New Sales Tax		\$267		
<b>Taxable Sales From Commercial Space</b>				
Retail	\$450 per sq ft	\$50,625	\$50,625	\$0
Sales Tax to San Francisco	1.0% of taxable sales	\$506	\$506	\$0
(less) Shift From Existing Sales		-\$253	-\$253	\$0
Net New Sales Tax		\$253	\$253	\$0
<b>Annual Sales Tax after Shift of Existing Sales</b>				
Sales Tax to the City General Fund	1.00%	\$521	\$253	-\$268
Public Safety Sales Tax	0.50% of taxable sales	\$260	\$126	-\$133
San Francisco County Transportation Authority	0.50% of taxable sales	\$260	\$127	-\$134
SF Public Financing Authority (Schools)	0.25% of taxable sales	\$130	\$63	-\$67
<b>One-Time Sales Taxes on Construction Materials and Supplies</b>				
New Taxable Value		\$941,854	\$680,114	-\$261,740
Supply/Materials Portion of Development Value	50.00%	\$470,927	\$340,057	-\$130,870
San Francisco Capture of Taxable Sales	50.00%	\$235,463	\$170,028	-\$65,435
Sales Tax to San Francisco	1.0% of taxable sales	\$2,355	\$1,700	-\$654

Source: EPS and Marin Economic Consulting

**Table A-7. Transient Occupancy Tax Estimates Estimate (2014 dollars)**  
**The implications of over-estimating hotel and motel occupancy.**

Item	Assumptions	GSW	50% of GSW	Difference
<b>Overnight Attendees in San Francisco for Multi-Purpose Venue Events</b>				
Events per Year		205	205	0
Total Turnstile Attendance		1,899,000	1,899,000	0
Potential Overnight Visitors		189,900	189,900	0
Net New Overnight Visitors	50% (25%)	94,950	47,475	-47,475
Hotel Room Demand	1.90 people per room	49,974	24,987	-24,987
Off-Site Hotel/Motel Room Proceeds	\$238 per-room night	\$11,907,203	\$5,946,868	-\$5,960,335
<b>Total Hotel/Motel Tax Revenue</b>	14% of room revenue	\$1,667,012	\$832,562	-\$834,450

Source: EPS and Marin Economic Consulting



**Table A-8. Parking Tax Estimates (2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Assumptions	50% of GSW	Difference
<b>Total Spaces On-Site</b>		950		950	
<b>Parking Revenues On-Site</b>					
Total	\$25 per day	\$8,668,750	\$20 per day	\$6,935,000	
(less) Vacancy	30%	—\$2,600,625	30%	—\$2,080,500	
Total		\$6,068,125		\$4,854,500	
<b>Spaces Off-Site</b>					
Annual Demand (spaces)		\$178,791			\$0
Total Parking Revenue	\$20 per day	\$3,575,821			\$0
<b>San Francisco Parking Tax</b>	25% of annual revenue	\$2,410,987	25% of annual revenue	\$1,213,625	—\$1,197,362
Parking Tax Allocation to Gen'l Fund/Special Projects	20% of tax proceeds	\$482,197	20% of tax proceeds	\$242,725	—\$239,472
Parking Tax Allocation to Municipal Transportation Fund	80% of tax proceeds	\$1,928,789	80% of tax proceeds	\$970,900	—\$957,889

Source: EPS and Marin Economic Consulting

**Table A-12. Parking Tax Estimates (2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Biotech	Difference
<b>Arena Utility Cost</b>		\$1,490,000	\$0	—\$1,490,000
<b>Other Uses</b>				
Retail	\$2.87 per sq ft.	\$322,875	\$322,875	\$0
Office (Including Event Management and Team Operations)	\$2.87 per sq ft.	\$1,569,890	\$2,996,280	\$1,426,390
Total Annual Commercial Utility Cost		\$3,382,765	\$3,319,155	—\$63,610
<b>Utility User Tax</b>	7.5% of commercial utility cost	\$253,707	\$248,937	—\$4,771

Source: EPS and Marin Economic Consulting

**Footnotes:**

- <sup>1</sup> Accepting the team also results in a significant revenue hole for the City of Oakland in that most events that currently take place at Oracle Arena are projected to move to the new arena.
- <sup>2</sup> Its neighbors would include UCSF, Celgene Corporation, National Multiple Sclerosis Society, venBio, Nurix, Clovis Oncology, FibroGen, and Illumina, among others.
- <sup>3</sup> The methodology used in this report is comparable to the methods and assumptions used by EPS in producing its fiscal impact analysis of the GSW arena. The Appendix provides a set of tables that indicate where common assumptions are used.
- <sup>4</sup> Economic Planning Systems, San Francisco Multi-Purpose Venue Project - Fiscal Impact Analysis: Revenues, 9/25/15. (EPS)
- <sup>5</sup> [http://www.sf-planning.org/ftp/files/legislative\\_changes/new\\_code\\_summaries/120523\\_TIDF\\_Transportation\\_Impact\\_Development\\_Fee\\_Update.pdf](http://www.sf-planning.org/ftp/files/legislative_changes/new_code_summaries/120523_TIDF_Transportation_Impact_Development_Fee_Update.pdf) Medical and Health Services, and Re-tail/Entertainment economic activity categories was increased to \$13.30 per square foot, except that the rate for museums, a subcategory of CIE, are \$11.05 per square foot, a reduction from the current amount. The rate for the Management, Information and Professional Services (MIPS) and Visitor Services economic activity categories was increased to \$12.64 per square foot, and the rate for the Production/Distribution/Repair (PDR) category was reduced to \$6.80 per square foot.
- <sup>6</sup> One-time costs are from SFMTA, **Capital and Operating Cost Estimates for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32**, 10/6/2015. Estimates are in 2014 dollars.
- <sup>7</sup> This figure is the difference between \$57.8 million, the total estimated capital uses estimate (not just that allocated to the project), and the total one-time revenues from Table 3.
- <sup>8</sup> bid. The word "net" is included because the City has estimated revenues from fares and parking from riders going to events at the arena. These revenues amount to approximately \$1.8 million, split roughly evenly between the two sources.



- <sup>9</sup> This is an extremely conservative assumption. Some estimates suggest that a ratio of 150 to 11 is possible. This would considerably increase employment and hence output at the site, increasing the resulting income to both City residents and City coffers.
- <sup>10</sup> The actual transaction price has been announced as \$150 million. San Francisco Times, **Warriors buy Mission Bay arena site from Salesforce**, 10/13/2015. In this analysis, the transaction price is kept at \$172.5 million to maintain comparability with the original EPS study. The change in sales price does have an effect on revenue estimates, but the effect is the same for both the Warriors plan and for the alternative, so it does not affect comparisons between the two.
- <sup>11</sup> There are several avenues through which revenues may be exempt from gross receipts taxes in San Francisco. This analysis is extremely conservative in assuming that this is more likely the case for biotechnology firms (perhaps because of significant revenues accruing through pass-through companies) than for firms in other industries.
- <sup>12</sup> Estimates of these benefits are derived from the 2013 San Francisco County model of IMPLAN. It should be noted that the EPS report does not provide estimates of the ancillary effects of the commercial aspect of the current project. This report similarly omits those benefits for the existing commercial development, but does include them for the commercial property that could be built in place of the stadium. These ancillary benefits are also reduced by one-half to provide a conservative estimate of the development's contribution to net revenues.
- <sup>13</sup> **UCSF, Salesforce in talks for S.F. Mission Bay land deal**, SFGate, March 15, 2014.
- <sup>14</sup> **Salesforce.com Is Said to Plan Sale of San Francisco Land**, Bloomberg Business, March 11, 2014.
- <sup>15</sup> This alternative is chosen because it will allow the use of most of the EPS parameters and assumptions in producing annual revenues for the alternative project. See the Appendix for a comparison of calculations between this project and the EPS report.
- <sup>16</sup> This is half of what is implied by IMPLAN in order to maintain the conservative nature of these estimates.
- <sup>17</sup> Memo to Patrick Soluri, Attorney at Law, from Philip King, Ph.D., regarding Urban Decay Analysis of Proposed Relocation of Golden State Warriors from Oakland to San Francisco, page 9.
- <sup>18</sup> These estimates are from the 2013 San Francisco County model of IMPLAN and have been scaled to 2014 dollars. The actual estimates of ancillary output generated were divided by two in order to keep the estimates conservative. The actual revenues could be significantly greater.

*(Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-15])*

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## Response to Late Comment GEN-1: Fiscal Feasibility

Exhibit 6 of a 104-page comment letter received by OCII on Nov 4, 2015 from the Soluri Meserve law firm (Comment O-MBA16S6-15) included an opinion critiquing the fiscal feasibility findings that the City's outside expert Economic & Planning Systems, Inc prepared, Keyser Marston Associates approved through a peer review, and with which the Controller's office concurred. It also argues that biotechnology would be a better use fiscally for the City. The economic benefits of the project in comparison to other hypothetical uses of the site, is not a significant environmental issue require a response under CEQA. (See CEQA Guidelines, § 15088(c).) The merits and opportunity cost of the proposed project are for the decisionmakers to evaluate. Nevertheless, for the reasons set forth below, OCII disagrees with the commenter. Further, as described in this response, the proposed project is a net financial benefit to the City and provides a means to invest in and improve the City's transit infrastructure. Regardless, the appellant's opinions concerning the fiscal feasibility analysis conducted for the project does not concern the physical environmental effects of the project, and is not germane to the adequacy and accuracy of the SEIR. Therefore, this is not a valid ground for an appeal of the SEIR.

1. In calculating induced demand, the Soluri Meserve consultant, Mr. Haveman, compares 2,000 added biotech employees to the approximately 500 permanent staff of the Warriors. He excludes from his analysis the estimated 372 retail employees and up to 1,000 event center staff that would serve concessions, event management, janitorial and other functions up to 225 times per year, thus the number of employees at the project site is comparable to a biotech use.



2. He assumes no independent utility of any of the upfront transportation investments (4 LRVs, crossover tracks, signals, signage). The transportation investments would benefit all users of the transit system in the neighborhood, other users of the area transit system, and the SFMTA and would serve the arena and neighborhood without cannibalizing service elsewhere in the City.
3. Mr. Haveman's assertion that the City would receive greater net gain from a biotech center than an event center assumes ongoing transit costs associated with a biotech center would be zero. Given the estimated 2,000 employees that a biotech center would add, this is a false premise. In the analysis, savings from zeroing out ongoing transit costs are partially offset by the loss of stadium admissions tax proceeds as well as reductions in every category of taxes collected other than gross receipts. In fact, an April 20, 2015 comparison by EPS of the proposed project to the previously proposed salesforce.com project which is nearly identical in scope to Mr. Haveman's proposed biotech campus (1,026,000 square feet of office and 30,000 square feet of retail employing 3,942 FTEs) would have generated only \$6,753,000. This is \$7,357,000 less than the \$14,110,000 estimated to be generated by the proposed project on an annual basis (See Attachment A to this Exhibit D).
4. The report questions the capacity of the City's hotel market to accommodate additional event attendees without simply displacing other overnight visitors and whether event attendees were already staying in the City when the events were held at Oracle Arena in Oakland. This analysis does not account for the interplay of hotel room prices. Since FY 2010-2011 the City's hotel room occupancy rate has increased modestly from an average of 81.1 to 86.4 percent in FY 2014-2015. Over the same period, average daily rates for hotel rooms have increased by more than 50 percent. The City's hotel market is constrained, but the City's experience is that limits on capacity have caused room rates to increase (and corresponding hotel tax revenues) as capacity is filled. In addition, there are numerous hotel projects currently planned or being built, including the Block 1 site on Third Street and Channel Street in Mission Bay North.
5. The report assumes that \$10,901,000, the amount of estimated TIDF [Transit Impact Development Fee] collected from the hypothetical alternative development (including the commercial, retail and parking in the GSW project) serves as an accurate estimate of all transit costs for a biotech alternative to the event center, whereas the event center transit cost assumptions substantially exceed the event center TIDF revenue. The justification given — that the TIDF was designed for an office development and not an event center is untrue — as the rates are based on a study of the comparative burdens placed on transit by different uses, including office uses and entertainment uses. (SF Planning Code Section 411.1 Findings). Further, the TIDF is a development impact fee and conservatively sets rates below actual costs; further, by law TIDF proceeds can only go to infrastructure and capital improvements, not operation and maintenance. Thus, costs to the transit system of a biotech use with 2,000 employees will be more than the amount of the TIDF collected.
6. The reported sales price excludes the purchase price of 132 parking spaces in the 450 South Street garage, which closed separately for about \$5 million, explaining some of the difference between the assumed \$172 million purchase price and the \$155 million it closed for.



7. The proposed project is estimated to generate \$14.1 million per year in 2014 dollars, revenues to the City and County above and beyond tax increment dedicated to OCII for Mission Bay infrastructure and affordable housing. Of this, the City estimates it needs \$6.1M in annual operating costs to run extra transit, traffic enforcement, public safety and street sweeping services and an estimated \$2.7 million in annual debt service payments to purchase four new light rail vehicles, expand the adjacent T-Third platform, install crossover tracks, update the nearby T-Third substation and install changeable message signs, intersection signals and closed circuit security cameras. The Mayor and ten members of the Board of Supervisors have sponsored a resolution authorizing the expenditure of additional \$0.9 million per year to ensure that arena events that overlap with SF Giants home games do not cause undue traffic congestion. Even if one were to conservatively assume that none of this capital or operating investment benefitted the neighborhood or the citywide network, this still leaves \$4.5 million per year for other City uses; \$2.6 million of this accrues by law to the Children's, Library and Open Space funds, the County Transportation Authority, the Public Safety sales tax and the SFMTA with the remaining \$1.9 million accruing to the City General Fund. The revenue generated by the proposed project compares favorably to every other NBA arena in America and once accounting for the City services a biotech alternative would generate, particularly given its addition of 2,000 employees during the busiest times of day in the a.m. and p.m. peak commute, the project compares favorably to a completely office development.

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### Issues Raised by Late Commenters on Environmental Justice

This response addresses all or part of the following comments, which are quoted below:

I-Templeton-1      PH2-Templeton-1

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After seeing the despicable comments by Planning Commissioner Michael Antonini last week, I was compelled to examine through critical race theory why the statement fails to comply with state and federal law and advisory opinions to address the profound environmental justice issues from the cumulative effects of decades of pollution centered on southeast San Francisco. The precedent for compliance was established firmly in the case of BART's Oakland Airport Connector.

Antonini wrote, as reported:

"Their effect has bought many new residents to San Francisco and helped to provide vitality to many of our neighborhoods that were heretofore economically depressed, unsafe, dirty areas of San Francisco to which few would travel to shop, dine and -much less-live... The population of the neighborhoods have changed dramatically."

\*Airbnb is better than... brothels?

"It's better to have short term renters sharing homes with owners, even in RH1 and RH2 neighborhoods, than to have multiple families living in a single family home or for such homes to be used for illegal criminal activities, often pretending to be message [sic] establishments."

For a decade, I engaged with the Excelsior and Bayview Hunters Point communities during the highly successful Branch Library Improvement Program as a board member of the Friends of the San Francisco Public Library, testifying before the Library Commission for the \$1 million to build the Bayview Linda Brooks Burton Branch Library instead of just a remodeling. I found those people in the forgotten parts of



the City to be hard-working, determined to raise their families and hopeful that they would share in the blessings that San Francisco has to offer. I also spent a lot of nights coming from evening meetings, particularly on Third Street, waiting for the T-Line in the cold, dark of night for as much as an hour.

Now that we have the Bayview Linda Brooks Burton Branch Library open for public programs as a magnet for the neighborhood, it troubles me that potential visitors would not be able to attend because their access would be blocked by the substantial and unmitigated impacts from placing such a gargantuan arena at the choke point of the \$2.2 billion investment of federal, state and local bond and property tax funds to build the T-Line, purportedly to finally link southeast to the rest of the City.

Unfortunately, Mr. Antonini's words are reflected in this EIR, because it assumes that the families of southeast San Francisco are much less valuable than the well-heeled luxury box purchasers who would enrich the owners of the Arena. Sports teams have morphed into a shell for real estate speculation. However, the desire to make windfall profits collides with the mandates of California's pioneering law in environmental justice, continually affirmed by the legislature since 1999 and most recently in advisory opinions by Atty. Gen. Kamala Harris.

It flies in the face of sustainable planning policy to move a large venue from a site which has access from an airport, Amtrak, BART, ACTransit and hundreds of acres of parking to rely on a single stop on the T-Line, which has failed to meet its promised service goals for the past eight years. The only conceivable reason is Antonini's assertion that certain types of people are more desirable. In the past year, two NBA franchises have changed hands because owners made similar admissions.

When the USF Dons had the opportunity in 1951 to play in the Cotton Bowl, only if they left their black players behind, the university and the players turned their back on the bowl, leading to their being labeled "the greatest college football team of all time." It is now time for our City officials to assert the primacy of justice over profit and reject this Arena.

#### **T'eedUP: Technical Fouls Make GSW Arena Bad for Environmental Justice Nov. 1, 2015**

##### **EXECUTIVE SUMMARY**

A critical race theory analysis of the proposed Golden State Warriors Event Center in Mission Bay indicates that the Subsequent Environmental Impact Report falls short of the standards on the California Environmental Protection Act and the Executive Order 12898 because:

1. It does not address the cumulative effects of a Superfund site, proximity to a highway with more than 200,000 vehicles per day, two power plants and an open air waste water treatment plant and decades of governmental disinvestment on the largest concentration of affordable family housing in the nation's most expensive city for housing.
2. It breaks promises made to African-Americans throughout the city and Bayview-Hunters Point specifically about the T-Line being the artery to enhance access to the city's economy.
3. It values wealth and race in land use decision-making to the financial, health and civic detriment of African-American, Latino and Chinese citizens.
4. It does not supply the stated objective of the General Plan to provide middle class jobs to a community which has 43 percent of the city median income.
  - a. This project would block for more than 200 days per year the primary artery from Bayview-Hunters Point during peak hours.
  - b. MUNI has a history of missing construction deadlines. The T-Line was 18 months late. The Central Subway was planned to open in 2009.
  - c. This project would endanger children forced to use the Muni system to attend public schools and foster truancy or inability to participate in afterschool events.
  - d. Utilization of the 22-Fillmore would impact African-American and Latino transit riders.
6. The Subsequent Environmental Impact Statement fails to include any consideration of Environmental Justice nor does it include an Equity Analysis.



7. Expert opinion indicates that it would be easier for most San Franciscans and other citizens throughout the Bay Area to reach the current location (a 15 minute BART trip) than to reach the new facility.
8. The Event Center will raise housing prices, increase real estate speculation, short-term leasing activity and displace minority home owners already having faced the most severe predatory lending activity in the country.
9. A much more effective use of the land would be the development of research and development geared to addressing health disparities, particularly in honor of the late Dr. B. Nathaniel Burbridge.

#### **T'eedUP**

Profound Environmental Justice  
Issues with the Golden State  
Warriors Event Center EIR

- The T-Line currently is on time less than half of its scheduled runs; compared to the predecessor 15 bus line, it carries 20 percent more passengers, but operates 60 percent slower.
- GSW Event Center worsens the race and poverty related stress factors for the highest concentration of affordable housing in the City.
- The City and County of San Francisco has denied southeast San Francisco needed investment for 60 years, according to a 2004 civil grand jury report.
- The Draft Subsequent EIR contradicts the General Plan and the 1998 EIR for the Third Street Light Rail by ignoring the negative impact on Bayview-Hunters Point.
- The 30-Stockton line serving Chinatown is a proxy for the expected demand along the Central Subway. It also fails to achieve on-time operation half of the time. The proposed arena is right at the choking point where the current T-Line and additional Central Subway riders would intersect.
- A critical race theory analysis of the proposal indicates a long history of sports owners using African-American communities to gain public benefits but giving little in return in the Bay Area
- Open air waste treatment in Bayview Hunters Point would lift the smells from 18,000 event center patrons using the toilet into the homes of Bayview-Hunters Point residents, undoing gains in air pollution from closure of power plants.

#### **T'eedUP**

Technical Fouls Make Proposed Warriors Arena  
Bad for Environmental Justice

*By John William Templeton\**

#### **DEFINING ENVIRONMENTAL JUSTICE**

Attorney General Kamala D. Harris defines environmental justice as "...the fair treatment of people of all races, cultures and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies," in an advisory for local and regional governments.<sup>1</sup>

The U.S. Department of Transportation requires that its grantees:

"avoid, minimize or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations;

"ensure the full and fair participation by all potentially affected communities in the transportation decision-making process;

"prevent the denial of, reduction in or significant delay in the receipt of benefits by minority and low-income populations..<sup>2</sup>



**\*Templeton is co-founder of National Black Business Month and architect of Our10Plan, the African-American economic fairness plan. Given a lifetime achievement award in February 2015 by the S.F. Public Utilities Commission Celebrating Black Achievement program, he served six years on the board of the Friends of the San Francisco Public Library and was active in the Excelsior and Bayview branch campaigns. Author of context statements on African-American history in San Francisco and San Jose, he is creator of the California African-American Freedom Trail. He has presented on environmental justice to Region 9 of the Environmental Protection Agency, the National Park Service, California Historical Resources Commission and U.S. Army Corps of Engineers, Sacramento district. Conservator of the 20,000 image Clarence Gatson Collection and the Wesley Johnson Collection, he convenes the annual Preserving California Black Heritage conference.**

In a 2012 regional videoconference<sup>3</sup> to Region 9 of the Environmental Protection Agency, this writer described southeastern San Francisco as a bellwether for the practice of environmental justice. Community members began addressing a variety of health and environmental factors in the 1940s, soon after World War II, and became famous in 1968 for sitting in at the office of the Secretary of the new Department of Housing and Urban Development until it received \$50 million as one for the first two Model Cities initiatives.<sup>4</sup>

#### CRITICAL RACE THEORY AND ENVIRONMENTAL JUSTICE

Critical race theory emerged as a scholarly field from the recognition that embedded practices in society lead to disparate outcomes. Foster<sup>5</sup> wrote:

“Consider the problem of environmental racism, understood as the disproportionate distribution of environmentally harmful substances (such as lead) and land uses (such as hazardous waste facilities) in communities of color. As with most adverse racially disparate outcomes across a spectrum of social contexts and goods, there is no clear perpetrator or encompassing theory of causation that explains these outcomes. Indeed, as I have argued, these outcomes are best understood as yet another manifestation of the racism and discrimination that exists throughout our social structure—in housing discrimination, political disenfranchisement, and lack of access to health care and other social amenities.”

Decisions for public infrastructure, in this analysis, can have long-lasting generational impacts such as the decision by the New Deal-era Federal Housing Agency to insist on racial covenants as a condition for federal mortgage insurance<sup>6</sup>. It took a 1946 Supreme Court decision to overturn the rule, but the effects for residential segregation have endured for more than 70 years.<sup>7</sup>

When the Bay Area attracted major league sports franchises in the 1950s and 1960s, it located all the facilities in African-American neighborhoods of San Francisco or Oakland.<sup>8</sup> Through the 1990s, all the major league teams played in Bayview Hunters Point or East Oakland, with combined football/baseball stadiums and basketball arenas attracting more than 150 events per year.

In the same year that Willie Mays arrived from New York with the San Francisco Giants, Roy Clay Sr. arrived in the Bay Area as a computer programmer on the most advanced such device in the world, at the Lawrence Radiation Lab in Livermore.<sup>9</sup> His contributions to programming and technology led to his naming as a Silicon Valley Engineering Hall of Fame member in 2002.

Also in 1957, the Santa Clara County Board of Supervisors, in a racially-motivated decision, chose not to join the Bay Area Rapid Transit District (BART), choosing instead to spend its transportation resources on highway construction.<sup>10</sup>

That decision would increase pollution to the north along US. 101 and I-280, built through the same neighborhoods as Candlestick Park and make lucrative defense contractor jobs relatively inaccessible to thousands of African-Americans who had worked in defense industries in the East Bay and southeastern San Francisco since World War II.

In 2015, the ramifications which those decisions set in motion have created a community severely impacted by a variety of air and ground pollutants without the employment base to maintain middle class communities.



A critical race theory analysis of environmental justice must address the long-standing inequities that go beyond the project in question. Although the project sponsors are ignorant of these inequities and may claim no role in causing them, they are the beneficiaries of these decisions and should be held accountable for not worsening already dire circumstances.

The question San Francisco decision-makers should ask is *"Why take the risk of increasing pollution to the most severely impacted community in the city and worsening transit access in order to move a sports arena away from another low-income, minority community?"*

In another decision of regional, long-lasting importance, the City and County of San Francisco now encourages, if not requires, its homeless or poverty-stricken African-American residents to use housing choice vouchers outside the city as far away as Fresno and Bakersfield, moving them even further away from opportunity.<sup>11</sup>

The consequences of its land use decisions must also take the same regional approach. A critical race theory approach is called upon to examine why the Subsequent Environmental Impact Report ("EIR") completely ignored the Bayview-Hunters Point General Plan, the Environmental Impact Report for the Third Street Light Rail and a long history of environmental racism towards the residents of southeastern San Francisco.

For example, the Subsequent EIR acknowledges:

"significant and unavoidable impacts in the areas of transportation and circulation (traffic impacts at multiple intersections and freeway ramps, and transit demand on regional transit providers exceeding capacity), noise (substantial permanent increase in roadway noise and crowd noise affecting sensitive receptors); air quality (construction and operational emissions or ozone precursors exceeding thresholds) wind, (substantial increase in wind hazard hours at off site public areas and utilities (construction of new or upgrader wastewater facilities and determination by the San Francisco Public Utilities Commission that it currently has inadequate capacity to serve the project's wastewater demand."

For the City and County of San Francisco to accept such outcomes is an act of environmental racism comparable to the restrictive covenants of the New Deal federal housing agency and the Santa Clara County supervisors who rejected BART (only to welcome it in 2015 at a much higher cost).

Ironically, the Santa Clara County employers who turned their back on workers from the East Bay and San Francisco have now gained approval to have their private shuttle buses stop at public transit stops, blocking the regular MUNI lines for a minimal fee without seeking any remediation for the impact on the 60 percent of MUNI riders who are minorities.

For the second time in 50 years, a county government is using transit infrastructure to promote employment segregation. As Goldman writes:

"Lower-income people should not bear the brunt of the negative externalities of economic development. "<sup>12</sup>

The disparity in the response to the concerns of the affluent and powerful neighbors of Mission Bay speaks volumes in contrast to the complete avoidance of the environmental injustice to be heaped on the long-suffering residents of Bayview-Hunters Point.

See these comments by Planning Commissioner Michael Antonini:<sup>13</sup>

\*Tech and Airbnb have saved San Francisco.

"Their effect has bought many new residents to San Francisco and helped to provide vitality to many of our neighborhoods that were heretofore economically depressed, unsafe, dirty areas of San Francisco to which few would travel to shop, dine and -much less-live... The population of the neighborhoods have changed dramatically."

\*Airbnb is better than... brothels?



"It's better to have short term renters sharing homes with owners, even in RH1 and RH2 neighborhoods, than to have multiple families living in a single family home or for such homes to be used for illegal criminal activities, often pretending to be message [sic] establishments."

Critical race theory highlights the importance of narratives to balance numerical processes which focus on the minutiae of individual projects without understanding how they affect people in the real world.

Talking to people in their own environment produces insights not available from outside "experts" with no cultural competency and different from what can be gathered through the typical public hearing format, with time limits on comments.

A process which says that notice was given in the legally proscribed way without any specific outreach into a community which has 43 percent of the median income of the city in general does not take into account financial and transportation pressures which can preclude participation in meetings, and the community's lack of resources to analyze massive amounts of data.

San Francisco's activists were legendary as relatively uneducated persons to take the time to study land use documents during the 1940s through the 1990s as the likes of Geraldine Johnson, Dr. Hannibal Williams and Mary Helen Rogers became more expert than the city officials they tormented.

A generation of health practitioners and scholars such as Dr. Arthur Coleman, a joint J.D./M.D. and Dr. Carlton B. Goodlett, an M.D. and Ph.D and dentists like Drs. Dan Collins and Zuretti Goosby also gave the community the capability to speak authoritatively to the powerful.

Just recently, residents near Candlestick stopped the plan to implode the stadium to prevent dust pollution.<sup>14</sup>

Fortunately, the activists group POWER has created an excellent narrative summary of the impact of race, poverty and transportation in San Francisco. Alicia Garza, the catalyst behind the Black Lives Matter movement, was co-director of POWER.

The new generation of activists also includes the web site Color of Change, founded by Van Jones.

With such visible activists and the history of public involvement, it is quite inconceivable that an Environmental Impact Statement affecting Bayview-Hunters Point and secondarily, the Mission, Chinatown and the Western Addition would omit the issue of environmental justice.

However, the Candlestick implosion idea was handled in the same backdoor fashion until the community found out about it.

Additionally, this writer has conducted more than 400 oral history interviews of African-Americans in San Francisco since 2003 and catalogued the artifact collections of Dr. Carlton B. Goodlett, former publisher of the San Francisco Sun Reporter; Clarence Gatson, photo editor of the Sun Reporter and Wesley Johnson Sr., and Dr. Wesley Johnson III, owners of nightclubs and pharmacies from the 1940s through the 1970s.

For the past nine years, the community has been encouraged to tell their stories through the Preserving California Black Heritage conference each September. The 2015 conference led to coverage by CNN, KGO and KPIX along with a Datebook article in the San Francisco Chronicle by uncovering an abandoned Sargent Johnson carving in the Western Addition neighborhood.

While raising funds for the Excelsior and Bayview branch library campaigns over the past ten years, this writer has had extensive experience catching public transit in the southeast part of the city after late night meetings. It has been apparent that there was a segregated transit system at work in the city, with different reliability standards based on the racial makeup of the neighborhood.

Reading about the proposed transit improvements offered to the basketball team caused him to explore the hypothesis in more detail.

Since 80 acres of Bayview were dedicated to slaughterhouses in the late 1880s, the community has borne the brunt of the city's progress, without sharing in it.



The customized treatment of the Event Arena is comparable to the difference between the city's two waste water treatment plants. The one in southeast San Francisco has been open air for 50 years, with smells apparent for miles and homes just feet away, contributing in no small way to profound health disparities and abridged mental health. The one at the Great Highway is completely contained with no smells.

Antonini's slip of the email, like the video of Donald Sterling and the memo from the Atlanta Hawks owner, are just glimpses into the mindset behind the policy decisions at work for professional athletics.

Critical race theory is designed to ferret out those ramifications without such clear-cut instances. It doesn't take a police shooting to determine whether "Black Lives Matter." The choices that governments and businesses make are even clearer indicators.

#### CRITICAL RACE THEORY AND SPORTS

It is not an accident that the most visible breakthroughs to end segregation in American society in the early and middle 20th century first came in sports. The Olympic victories of Jesse Owens and Joe Louis in the 1936 Berlin Olympics and the successful entry of Jack Roosevelt Robinson as the first black player in major league baseball were pivotal, according to UC-Santa Cruz sociologist Anthony Pratkanis.<sup>15</sup>

San Francisco was pivotal to the integration of sports because of breakthroughs dating back to the 1890s. In the field of horse racing, Alonzo Clayton won the California Derby at Ingleside Race Track and later won the Kentucky Derby.<sup>16</sup> Rube Foster brought the Chicago American Giants beginning in 1908 to play in the Pacific Winter League, the first integrated professional baseball league, a decade before he started the Negro National League in 1929.<sup>17</sup>

The University of San Francisco's first black athlete, Earl Booker, won the intercollegiate boxing championship in 1934. By 1951, Ollie Matson and Burl Toler led the team to an undefeated record and a Cotton Bowl berth<sup>18</sup>. Their teammates turned down the bid when informed that the black players could not compete, leading to a reputation as the "greatest college football team in history" with four future NFL Hall of Famers.

William Felton Russell and K.C. Jones, both graduates of McClymonds High School in Oakland, led USF basketball to consecutive NCAA championships along with an Olympic gold medal performance in 1956. Russell and Jones would continue their championship run for ten seasons in the National Basketball Association as part of the most successful franchise ever, helping to enhance the popularity of the sport and attract television viewers.

Major league sports, particularly football and basketball, have an important responsibility to protect the historic character of the neighborhoods which sacrificed years of pollution, disruption and slow growth to help those leagues achieve their current financial success through the help of public assets, in the long view of the critical race theory perspective.

The relevant question to answer is whether there is a corresponding benefit to the people of southeast San Francisco, who have already hosted the Warriors for almost a decade at the Cow Palace in the 1970s and hosted the Giants and 49ers for 50 years at Candlestick.

No evidence is offered to suggest that the arena would have any benefit to this community, such temporary event jobs have been available for decades. Any such jobs would be simply transferred from the East Bay into San Francisco with no net gain in opportunity.

Would Bayview-Hunters Point residents get to enjoy the facility as fans? POWER indicates that the most likely result is that San Francisco Police Department would step up enforcement of fare violations to actually discourage its residents from mingling with event center riders<sup>19</sup>. They note the shooting of a young man on the T-Line platform by two officers seeking to cite him for fare evasion

It is also noteworthy that two NBA owners lost their teams in the last year, in Los Angeles and Atlanta, for suggesting that their games attracted too many African-Americans (even if they were rich former NBA players).

It is profound evidence that the specter of race is at the heart of the decision-making to leave what BART director and transit expert Tom Radulovich calls the optimum transit location in its current site.<sup>20</sup>



Sports sociologist Harry Edwards suggests that a sports facility is the absolute worst investment to make near an impacted community:

“...there is no option but to recognize that for increasing legions of black youths, the issue is neither textbooks nor playbooks—the issue is survival, finding a source of hope, encouragement, and support in developing lives and building legitimate careers and futures.

Without question, the ultimate resolution to this situation must be the overall institutional development of black communities and the creation of greater opportunity for black youths in the broader society.

The current Warriors owners join a long array of sports entrepreneurs—Bob Lurie, Al Davis, Eddie DeBartolo, Larry Ellison, Lew Wolff and Jed York—who have played sports monopoly with Bay Area governments. In every case, the owners win.

#### THE PROJECT

The Office of Community Infrastructure and Investment has prepared an EIR<sup>21</sup> on the plan by GSW Arena LLC, an affiliate of the National Basketball Association team Golden State Warriors, to build an 18,000 seat arena, two office buildings, retail and parking spaces on an 11-acre parcel across from the UCSF Mission Bay campus.<sup>22</sup>

Moved from an initial proposal to site the arena on Pier 32, the project takes the current strategy for sports facility development of relying on additional real estate properties to help underwrite the cost. It was also calculated to attempt to avoid the potential for a voter referendum on projects which exceeded height limits on the waterfront.

In addition to the 41 home games, the facility would be in use for as many as 200 events throughout the year, becoming an adjunct to existing convention venues. A memorandum of understanding between the chancellor of UCSF and the Warriors has been touted to address concerns that the arena would hamper traffic to the three new adjacent hospitals.<sup>23</sup>

If completed, the facility would move the franchise from the Oracle Arena in Oakland, which has nearby access to Oakland International Airport, a BART and Amtrak station, a bus yard and Interstates 580 and 880, in addition to parking for the adjacent baseball and football stadium.

The new site would be accessible directly by a station on the Muni T-Line as well as surface streets.

The proposed arena is an addition to expanded use of the T-Line resulting from current construction of the Central Subway to North Beach.<sup>25</sup> This subway, using \$1 billion in federal transit funds, will stop at Union Square, and the Moscone Center with an anticipated 20,000 new riders.

Before voters on Nov. 3 is a proposal to create Mission Rock<sup>26</sup>, a mixed use housing and retail development on the site of the Giants parking lot. More than 6,500 units of housing has been built at Mission Bay adjacent to the UCSF campus.<sup>27</sup> Long-awaited plans for the development of Pier 70 with three million square feet of commercial space are in motion.<sup>28</sup> Sixteen hundred housing units are set for the former Schlage Lock site in Visitacion Valley<sup>29</sup> and the first homes are occupied of an eventual 10,500 (twice the current number of units in Mission Bay) in the Shipyard development on the former Hunters Point Naval Shipyard.<sup>30</sup>

#### TECHNICAL FOULS IN THE ENVIRONMENTAL IMPACT PROCESS

The proposed Warriors event center would strangle the only transit lifeline for the largest concentration of affordable housing in San Francisco, increase pollution from waste water and auto emissions and drive up housing costs.

POWER's *Next Stop: Justice: Race and Environment at the Center of Transit Planning* report found:

“Bus riders in the core communities of color in San Francisco are impacted by long waits and overcrowded buses. Comparing the MTA's data on the core lines that POWER members ride with the MTA's recorded system average we found that overwhelmingly, the on-time performance on each of these lines in southeast San Francisco is significantly worse than the system average.”



Quoting rider Lorren Dangerfield:

"The T-train at night usually means at least 20-30 minutes waiting. Then often when the train does come, it's only running from downtown to 23rd St. It turns around before it even gets to Bayview. The buses that affect the poorest communities are the ones that run the slowest and least often."<sup>31</sup>

The T-Line in 2012 was the city's second most used light rail line, according to Next Stop: Justice, with 30,033 daily riders. It was only on-time 58 percent of the time with headway adherence (scheduled time between trips) on 45.3 percent of trips. At peak evening hours, 17 percent of the trips were overcrowded.<sup>32</sup>

This compares with the performance of the 15-Third bus line that it replaced in 2007:

"15 - Third Street. This is MUNI's primary bus route in the Corridor. The route is operated using articulated motor coaches and serves City College of San Francisco, Downtown, Chinatown, North Beach and Fisherman's Wharf via Third Street, Kearny and Montgomery Streets, and Columbus Avenue. Within the Corridor, the route primarily follows Third Street and Geneva Avenue. It provides regional connections with the Caltrain Terminal at Fourth and Townsend Streets and comes within two blocks of Caltrain's station at Paul Avenue. The route also connects with the BART and MUNI Metro subway systems at both the Montgomery and Embarcadero BART Stations, as well as with BART's Balboa Park Station. The route operates every five minutes during the a.m. peak period, every six to seven minutes during the p.m. peakperiod, and every ten minutes between these periods. Approximately 33 percent of the route's 24,200 daily boardings occur north of Market Street."<sup>33</sup>

The inherent bias towards approval of projects once they reach the stage of Environmental Impact Statement is demonstrated by the No Action option in the 1998 EIR. The same objective of the Third Street Light Rail could have been met by purchasing 40 more articulated buses. Yet, as the civil grand jury notes, the Third Street Light Rail went forward despite costing ten times the originally budgeted amount. The cost overruns would compromise MUNI's ability to conduct scheduled maintenance on its fleet for a decade.

Like a trick shot in pool, it would also impact low-income communities in the Western Addition, Mission and Chinatown as the 22-Fillmore is anticipated to serve the arena and the current 30-Stockton would see its riders use the Central Subway. Additionally, once the Central Subway is completed in 2019, T-Line riders will no longer connect with Muni Metro.

In 2019, the T-Third/Central Subway will become an independent train system with no direct connection to the rest of Muni Metro, BART and the ferry system.<sup>34</sup>

The Memorandum of Understanding between UC-SF and the Warriors is only the latest instance of this project ignoring the principles of environmental justice. Repeatedly, the potential impacts on the people of southeast San Francisco are ignored at every stage of the process. Within more than 2,500 pages, the topic never comes up.<sup>35</sup>

In addition, the Arena's siting and proposed operation is likely to contribute to the dramatic outmigration of African-Americans from San Francisco. Studies of similar sports arenas using the real estate investment strategy show such an effect.<sup>36</sup>

### **The Failure of the T-Line**

In 1998, a similar environmental impact statement described the T-Line as "a key infrastructure improvement to help support the economic and physical revitalization of the Bayview Hunters Point commercial core and the planned development in Mission Bay."<sup>37</sup>

The Bayview-Hunters Point general plan labels the T-Line as <sup>38</sup>

".. the nucleus for public transit improvements and socio-economic revitalization efforts in the corridor, and prioritize the efficient movement of the light rail by reducing conflicts with automobile and truck traffic."

In 2005, this writer presented an exhibition at the Bayview Branch Library called SFSoul: Taste the Excitement. It documented the role of the two dozen African-American nightclubs between the 4000 and 6700 block of Third Street, the longest continuous black business district in California.<sup>39</sup>



Those clubs were bases for athletic leagues and charitable drives as the social centers of a majority African-American neighborhood.

The construction of the T-Line for three years created a significant hurdle for those businesses.

However, the benefit to the community was a link which would make the isolated community integrated with the city's main employment centers.

"Buses caught in Corridor traffic often provide unreliable service south of Downtown. Currently, passengers may experience overcrowding and extended waiting times between buses, as well as slower operating times and increased travel times. This situation is projected to worsen as traffic in Downtown and along the Corridor increases to 2015 levels."<sup>40</sup>

In 2015, the Controller's Office found in its 2015 biennial survey of citizen satisfaction with city services that residents of Supervisorial District 10, which is bisected by the T-Line had the lowest satisfaction of any residents in the City with Muni services.<sup>41</sup>



Figure 1. 2015 Citizen responses to question on Muni on-time performance in District 10. Source, Controller

The Controller's performance review of all city departments found that MUNI overall achieved less than 80 percent of the goal spelled out in the City Charter.<sup>42</sup>

The August 20 report from the Controller showed that citywide, MUNI reliability declined from the previous year.<sup>43</sup>



Figure 2. Muni performance on Charter goals April-June 2015 from Quarterly Government Barometer. Source, Controller City Services Auditor



The 1998 EIR for the Third Street light rail projected a 39 percent increase in corridor population and a 35 percent increase in corridor employment by 2015.<sup>44</sup>

“As a result of the projected population and employment growth in the Corridor, traffic congestion on major highways and arterials, particularly Highway 101 and Third Street, is expected to increase substantially. Highway 101 at Cesar Chavez is expected to be Level of Service (LOS) F (excessive delays) and LOS E at intersections of Third and Cesar Chavez and at Bayshore and Arleta.”

The first goal of the project was “Improve transit service to from and within the Corridor, thereby enhancing the mobility of Corridor residents, business people and visitors.”<sup>45</sup>

In 1997-98, the 15 Line provided six minute schedules. The No Build alternative would have reduced its schedule to five minute increments. The promise that light rail would improve that performance has proven false. Only 34 percent of District 10 residents give MUNI an A or B grade for on-time performance, one in three.<sup>46</sup>

For the first EIR of the T-Line, the City and County of San Francisco underestimated the 2015 population of San Francisco by 40,000, with much of the unforeseen growth happening along the T-Line corridor.<sup>47</sup>

The Civil Grand Jury also noted that the T-Line Light Rail came in at \$678 million for construction, overwhelming the \$200 million bond passed to address the entire city’s transportation needs.<sup>48</sup>

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There is no reason to believe that a hastily done EIR for a second-choice site, without any of the four years of community input which the T-Line conducted from 1993-97, will address the serious issues raised by the original construction of the Third Street Light Rail Line.

Anyone who was using Muni regularly around the time of the T-Third rollout should remember the process as being anything but smooth. One of the reasons cited for the bumpy rollout was the internal decision to use outdated ridership models. The original ridership models forecasted a 2005 opening for the line. However, the line did not open until 2007.<sup>49</sup>

### **A Spur for Gentrification**

Compared to the relative racetrack pace for the Warriors arena, it took from 1993 to 2007 for the merchants and residents of Third Street to finally see the light rail line which had been promised to them.<sup>50</sup>

The five segments that make up the Corridor between Visitacion Valley and the Caltrain Terminal have a high proportion of minority residents. According to the 1990 Census, 50 percent of this portion of the Corridor is Black, 31 percent is Asian, 15 percent is White, and 10 percent is Hispanic. These proportions contrast with the racial distribution of San Francisco residents, who are less than 1 percent Black and 53.6 percent White. The highest proportion of Black residents is found in Segments 2 and 3 (58 and 67 percent, respectively), while most of the Hispanic population resides in Segments 1 and 2. Asians from the predominant population group in Segment 1; whereas, Segments 4 and 5 have mostly White populations.<sup>51</sup>

In 1992, the San Francisco Human Rights Commission published Unfinished Agenda, a report which described the unequal conditions of African-Americans in San Francisco, then still ten percent of the population of 750,000.<sup>52</sup>

In 1962, poet James Baldwin toured Bayview Hunters Point with a National Educational Television crew describing conditions not unlike Mississippi along the hillside.<sup>53</sup>

The next year, young people from the community launched the most successful civil rights campaign of the 1960s, the United San Francisco Freedom Movement.<sup>54</sup> Led by Bill Bradley Jr., a Marine veteran and law student; and Tracy Sims, a Berkeley High graduate, the campaign married the



resources of the Congress of Racial Equality, NAACP and the Crispus Attucks Clubs of Bayview-Hunters Point, led since 1948 by Mrs. Ardith Nichols.<sup>55</sup>

Highpoints included the Palace Hotel sit-in on March 5, 1964 and the Auto Row sit-ins in May of that year. Eventually, 375 companies signed employment agreements, including all of the Big Three automakers.

Lawyers for the movement, Terry Francois and Willie L. Brown Jr. were elected to the Board of Supervisors and California Assembly. Despite relocation from the building of U.S. 101 and redevelopment activities in South of Market, Western Addition and Hunters Point, the bulk of the black community settled into middle class enclaves of home ownership throughout Bayview and Ocean-Merced-Ingleside. Subsidized apartments in the Western Addition and Hunters Point provided affordable renter space.

As late as 2000, San Francisco had 35 percent of its black labor force in management and professional jobs, the highest percentage in the country.<sup>56</sup>

Disparate policies began to break apart a community that produced the likes of Maya Angelou, Johnny Mathis and Danny Glover in the 1960s. The extended denial of public transit coupled with pollution from U.S. 101 combined with the residue of the Hunters Point Shipyard to create some of the most toxic pollution in the country.

Despite the problems, isolation from the rest of the city allowed the workers from the Butchertown slaughterhouse district and longshoremen to live in stable middle class communities.

“Singing” Sam Jordan, “the mayor of Butchertown”, used those workers as a power base to actually run for mayor of San Francisco in 1963. The former boxer opened his namesake club Sam Jordan’s at 4004 Third Street in 1959.<sup>57</sup>

The Long Island Club became a magnet for entertainers and athletes as the highest paid professional players in baseball and basketball, Willie Mays and Wilt Chamberlain, both competed in San Francisco.

Presence of the Candlestick football and baseball stadium and Cow Palace basketball and boxing arena helped sustain the clubs and bars along Third Street.

However, a series of changes in the sports business would remove those amenities. Although a \$100 million bond to refurbish Candlestick for the 49ers was passed in 1997, the team declined to take the offer.<sup>58</sup> As the Los Angeles Times noted, only ten percent of the 49ers fans actually lived in San Francisco.

The year before, the Giants followed in the wake of Baltimore’s Camden Yards to build a stadium at Third and King Streets. With the presence of the California Institute for Regenerative Medicine, the stadium would spark a nearby real estate boom.<sup>59</sup>

Construction of the Third Street light rail line would not deliver the promised gains for the longtime residents of this area, but a source of construction dust and decay for the Bayview-Hunters Point business district.

When interviewed in 2005 for the SFSoul exhibition, long time owners said they were just barely hanging on with a fraction of their normal customers.<sup>60</sup>

Unlike the EIR for the GS Warriors Arena, the Third Street light rail EIR of 1998 contained a section of “Environmental Justice Considerations” citing Executive Order 12898, signed by President Bill Clinton in Feb. 1994. A memorandum issued with the order said that a National Environmental Protection Act (NEPA) analysis must include “effects on minority communities and low-income communities.”<sup>61</sup>

For the purposes of the analysis, South Bayshore was 91 percent minority in 1998.

The example of the Barclays Center in Brooklyn, opened two years ago, indicates how the new model of sports facility, as a development spur instead of an event venue, worked against the interests of impacted communities.



Messmer analyzed its impact on the population of Brooklyn<sup>62</sup>:

“While NYC as a whole saw a net loss of nonhispanic whites of -2.8, Brooklyn saw a 4.5 percent increase in the number of nonhispanic whites.”

The study also reported a 5.8 percent drop in Brooklyn’s black population.

“As the Barclay Center drove up real estate values, it began pricing economically disadvantaged minorities out of the market,” wrote Messmer.

Since 1992, the date of the Unfinished Agenda report, the black population of San Francisco has fallen from 10 percent to 5.8 percent in 2013.<sup>63</sup>

An outmigration task force in 2010 produced a list of recommendations to address the decline, which were ignored.<sup>64</sup>

In 2014, the San Francisco African-American Chamber of Commerce issued a call for a tourism boycott of San Francisco’s \$9 billion industry. An agreement with city officials to remove that call has also been forgotten.<sup>65</sup>

The Golden State Warriors Arena would be the third attempt by Mayor Ed Lee to place a sweetheart deal in the hands of billionaires for the waterfront. The city lost \$11 million on the America’s Cup at the hands of Larry Ellison;<sup>66</sup> and the voters blocked the 8 Washington luxury development.

In contrast to the \$11 million to Ellison and the \$34 million in tax breaks to Uber, Twitter, et.al.<sup>67</sup> in Mid-Market, the city has spent less than \$1 million with businesses on Third Street as three-fourths of the historic black restaurants present in 2005 are still in business despite decades of previous success.

The oldest black bookstore in the country, a landmark of black literary genius, was sold at auction because the City refused to extend \$1 million in loans to the business.<sup>68</sup>

These incidents and many others speak to the continuing failure of the City and County of San Francisco to comply with community benefit agreements and to incorporate environmental justice into its land use decision making.

### **Community? What Community?**

The precedent for environmental justice litigation rests with a train line which runs adjacent to the current site of the Golden State Warriors.

As Public Advocates describes<sup>69</sup>:

“In September 2009, Public Advocates filed a successful civil rights administrative complaint with the Federal Transit Administration (FTA) on behalf of our partners Urban Habitat, Genesis, and TransForm. The complaint challenged Bay Area Rapid Transit’s (BART’s) controversial Oakland Airport Connector (OAC) project, alleging that in BART’s rush to build the OAC, the agency violated federal rules implementing Title VI of the Civil Rights Act of 1964 — rules that require transit agencies to analyze whether their projects have a disproportionately negative impact on low-income and minority populations.

#### **Why We Advocated Against the OAC**

“The \$492 million OAC was conceived as a three-mile elevated tramway connection from the BART Coliseum station to the Oakland International Airport, and would eliminate the existing cost-effective AirBART shuttle service.

“It would provide little, if any, transit mobility benefits to the area’s overwhelmingly low-income and minority residents due to its prohibitive \$12 roundtrip fare and its lack of intermediate stops along the job-rich Hegenberger corridor. BART’s own analysis predicts that less than 3 percent of the OAC riders will come from the immediate East Oakland neighborhoods surrounding the project.



### **Victory! The FTA Acts to Enforce Civil Rights**

“In response to our complaint, in October 2009 the FTA began conducting a sweeping on-site compliance review of BART, finding many civil rights deficiencies.

“Based on BART’s failure to conduct an equity analysis of the OAC, in February 2010 the FTA pulled \$70 million in American Recovery and Reinvestment Act funds from the project — the first action of its kind in the nation. The strong action underscored a promise made in President Obama’s State of the Union address to continue “prosecuting civil rights violations.”

“The federal stimulus funds were recaptured by Bay Area transit agencies, including AC Transit, and used to maintain existing transit service and jobs. To remedy the many civil rights deficiencies identified by the FTA, BART was also required to implement a corrective action plan, which we and our allies have been monitoring, and which we responded to in May 2010.

Not only the City and County of San Francisco, but also the Warriors should have been aware of this precedent. Yet neither the EIR or MOU addresses the transit needs of the South Bayshore community, 91 percent minority in 1998.

According to the San Francisco Housing Element:

Since 2010, the percentage of San Franciscans claiming white racial affiliation increased, totaling nearly 51% of the city’s population according to the 2012 American Community Survey (ACS). San Francisco’s African-American population continues to decline, dropping from 6.1% in 2010 to 6% in 2012. San Franciscans of Chinese origin declined from 21.4% of the total population in 2010 to 21.2% by 2012. The proportion of San Franciscans identifying with Hispanic origins (of any race) has increased from 14.1% in 2010 to 15.1% in 2012.

### **HACK THE IMPACTS**

The Hack a Shack strategy in professional basketball slows down the pace by intentionally fouling a poor free throw shooter. The proposed Golden State Warriors Arena intentionally fouls a low-income, minority community by mischaracterizing impacts which were previously spelled out in the 1998 EIR.

The previous discussion shows that all three tenets of federal environmental justice policy are compromised. Below, impact determinations in the EIR for the project are shown to ignore impacts on low-income and minority communities.

Impact TR-4: The proposed project would not result in a substantial increase in transit demand that could not be accommodated by adjacent Muni transit capacity such that significant adverse impacts to Muni transit service would occur under Existing plus Project conditions without a SF Giants game at AT&T Park LS No mitigation required is described as less than significant effect with mediation when it should be correctly characterized as significant.

*The service standards proposed in 1998 have not been met; residents of District 10, the poorest area of the city are dissatisfied with service. There is a significant case to be made that the current sports facility, AT&T Park, is the primary reason for poor service to the current population. This determination is not credible based on the current difficulties of the T-Line.*

Two of the busiest transit lines in the city, both serving heavily minority populations, would be impacted. The T-Line only serves twenty percent more passengers than the previous 15 bus line, but provides 40 percent slower service. The 30-Stockton runs the same route as the Central Subway under construction. It’s 33,000 passengers would be added to the load of the T-Line, which means that the subway would be at capacity with just current riders.<sup>70</sup>

Impact TR-13: The proposed project could result in a substantial increase in transit demand that could not be accommodated by adjacent Muni transit capacity such that significant adverse impacts to Muni transit service would occur under Existing plus Project conditions with an overlapping SF Giants evening game at AT&T Park.



*The only mitigation proposed is use of shared car services, which are much less likely to be available in low-income areas or to be accessible to low-income residents.*

*MUNI demand peaks at 5 p.m. with increases of as much as 100 percent. A recent early evening game at the Levi's Stadium indicates the problems with placing a sports stadium in the midst of a busy commercial/industrial area.<sup>71</sup>*

Impact TR 14: The proposed project would result in a substantial increase in transit demand that could not be accommodated by regional transit such that significant adverse impacts to regional transit service would occur under Existing plus Project conditions with an overlapping SF Giants evening game at AT&T Park. SUM

*Paradoxically, the EIR admits that the regional transit system can be overwhelmed but asserts that MUNI, with a fraction of the capacity currently servicing the basketball arena, would not be.*

*The Dept. of Public Health's Climate Action and Health Co-Benefits report states:*

*In order to balance the burdens of our transportation system with the benefits placed on certain communities, special efforts should be made to target service improvements to particularly benefit low income residents, communities of colors, the elderly, and neighborhoods that have a historical legacy of dealing with higher levels of environmental exposures.*

Impact TR20: Without implementation of the Muni Special Event Transit Service Plan, the proposed project would result in a substantial increase in transit demand that could not be accommodated by adjacent Muni transit capacity such that significant adverse impacts to Muni transit service would occur under Existing plus Project conditions. SUM

*The design of the T-Line took multiple lanes away from Third Street, reducing the capacity for additional transit service without blocking throughput to other areas. The level of MUNI service traditionally available to 49ers games at Candlestick would be compressed into a much smaller area.*

Impact TR-21: Without implementation of the Muni Special Event Transit Service Plan, the proposed project would result in a substantial increase in transit demand that could not be accommodated by regional transit capacity such that significant adverse impacts to regional transit service would occur under Existing plus Project conditions.

*The additional auto traffic on U.S. 101 from the gridlock from events would bring additional sources of pollution into an area which already has to suffer from the city's wastewater treatment plant and dust from Shipyard construction.<sup>72</sup>*

Impact TR 22: Without implementation of the Muni Special Event Transit Service Plan, the proposed project could result in a substantial overcrowding on public sidewalks, nor create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility on the site and adjoining areas under Existing plus Project conditions.

*Congestion would make it difficult for residents of Bayview-Hunters Point to walk or ride to downtown amenities, the complete opposite of the goals of the T-Line.<sup>73</sup>*

Impact PH-1: Construction of the proposed project would not induce substantial growth in the area, either directly (for example, by constructing new homes or businesses)) or indirectly (for example, through extension of roads or other infrastructure).LS No mitigation required

*San Francisco has the highest rental costs in the nation.<sup>74</sup> This arena would not create any additional jobs, but would attract absentee residents to bid up nearby properties so that they could be near the arena, a trend already seen in the city.<sup>75</sup> It would also reduce the supply of housing due to services like AirBnb renting spaces near the arena for 200 days of events.<sup>76</sup> Google's shuttle bus service grew from 155 passengers at two stops in 2004 to 100 buses daily with 10,000 passengers.*

Impact PH-2: Construction of the proposed project not displace existing housing units or create substantial demand for additional housing LS No mitigation required



*The City and County of San Francisco is 7,000 units short of replacing housing removed by redevelopment activity according to the Housing Element. Section 8 applicants are currently referred to sites outside the city and homeless African-American women are given tickets to leave the area in return for assistance.<sup>77</sup>*

Impact PH-4: Operation of the proposed project would not induce substantial population growth in the area, either directly (for example, by constructing new homes or businesses) or indirectly (for example, through extension of roads or other infrastructure) LS No mitigation required.

*Not a credible statement given the rapid growth of Mission Bay. The 1998 Third Street Light Rail EIR underestimated the city's population by 40,000, more than its daily passenger load.<sup>78</sup>*

### **Environmental Justice Legal Issues**

The proposed MUNI service changes would fly in the face of decades of case law and regulations for environmental justice. For instance, BART is currently conducting an analysis of its new extension in Fremont.

“Federal Transit Administration (FTA) Title VI Circular (Circular) 4702.1B, Title VI Requirements and Guidelines for Federal Transit Administration Recipients (October 1, 2012), the District is required to conduct a Title VI Service and Fare Equity Analysis”<sup>79</sup>

This has not occurred for the proposed transit changes. The BART report had to make the following determination:

“The travel assessment compares the estimated travel time for riders affected by the service change before and after the new service. The results of the travel time assessment found that the Project would benefit all populations, including minority and low-income, within the Project Catchment area. With project service, all populations are expected to experience the same time savings of 11.85 Minutes between Warm Springs and the Fremont Station, a 55.8% reduction in travel time.”<sup>80</sup>

“With the exception of Option 3, staff also found that travel times are not expected to change for riders of existing stations, as a result of the proposed options. As proposed in the FY2016 Preliminary Budget, additional cars would be added to the Green and Blue lines, which will lessen peak period crowding. As a result, the study found that minority populations will not experience a disparate impact and low-income populations will not experience a disproportionate burden on their travel times with the new service.”<sup>81</sup>

In the courts, the aforementioned BART connector case set a precedent by showing that the Metropolitan Transportation Commission spent \$9 for every \$0.50 spent on buses for low-income persons.<sup>82</sup> The service designed specifically for an arena to a high-income arena flies in the face of that precedent.

In San Diego, Atty. Gen. Harris vision of environmental justice was upheld when a court found that cumulative effects must be considered. A petition to intervene in the case Cleveland National Forest Foundation vs. San Diego Association of Governments in 2012 insisted that government agencies consider environmental justice.<sup>83</sup>

The attorney general warned the regional body in a comment letter that it failed to study the impact of increased pollution on minority communities.

“...the Attorney General is effectively putting lead agencies across the state on notice that a failure to address EJ considerations in the implementation of climate change policies will risk challenges to the legal sufficiency of their environmental impact documents.”

The legislative foundation for environmental justice comes from AB32 in 2006, which established an advisory committee on the issue.<sup>84</sup>

There is also an emerging standard on community participation.

“According to the EPA, “meaningful involvement” in environmental decision making means that: “(1) potentially affected community residents have an appropriate opportunity to participate in



decisions about a proposed activity that will affect their environment and/or health; (2) the public's contribution can influence the regulatory agency's decision; (3) the concerns of all participants involved will be considered in the decision making process; and (4) the decision makers seek out and facilitate the involvement of those potentially affected." However, members of affected communities may lack the technical resources, English language proficiency, access to quality legal representation, or simply the time to participate effectively."

Similar standards have been enacted by the California Air Resources Board.<sup>85</sup> Its 2001 document asserts:

Local land-use agencies are directly responsible for the siting of new air pollution sources, and local air districts also play an important role by issuing permits for new sources of air pollution. We are committed to working as partners with these agencies to improve the available information that local agencies use to make planning and permitting decisions.<sup>86</sup>

The Air Resources Board also addresses cumulative impacts:

It shall be the ARB's policy to work with local land-use agencies, transportation agencies, and air districts to develop ways to assess, consider, and reduce cumulative emissions, exposures, and health risks from air pollution through general plans, permitting, and other local actions.<sup>87</sup>

The landmark global warming act and subsequent legislation, plus legal opinions from the attorney general and court cases all underscore the importance of addressing potential impacts from the prism of environmental justice.

A DOT Title VI analysis of BART in 2009 found deficiencies in its environmental justice performance.

"FTA recipients should seek out and consider the viewpoints of minority, low-income, and LEP populations in the course of conducting public outreach and involvement activities. An agency's public participation strategy shall offer early and continuous opportunities for the public to be involved in the identification of social, economic, and environmental impacts of proposed transportation decisions."<sup>88</sup>

Based on those state and federal standards, the failure to address environmental justice in the Subsequent Environmental Impact Statement is problematic.

### **The Demographics of the Impacted Area**

Activist Marie Harrison described Bayview Hunters Point as the epicenter for environmental injustice in a 2003 report:

"The neighborhood is home to approximately 34,800 people, and more than 500 heavy and light industrial companies, retail stores, and commercial establishments. According to U.S. 2000 census data, approximately 48% of residents in Bayview Hunters Point are African American, 1.3% American Indian, 23% are Asian and Pacific Islanders, 17% are Hispanic and 10% are White. Income levels are significantly lower, and unemployment rates significantly higher for this small community, than for San Francisco as a whole: Nearly 40% of Bayview Hunters Point residents have annual incomes below \$15,000, while only 20% of the City's population as a whole have income that low, and the unemployment rate is 13% in Bayview Hunters Point, more than twice as high as the City as a whole."

Community victories to close the Hunters Point power plant have had the effect of opening up the area for new migrants. The African-American population of the neighborhood has dropped by 50 percent since 2000.

**Stress Factors Based on Race, Income and Unequal Opportunity.** For the purposes of the critical race theory analysis of environmental justice, the affected population must be viewed through the lens of the traumatic events which have occurred over the past 50 years. Each of these stress factors is known to, or reasonably should be expected to be known to the preparers of the Draft Subsequent Environmental Impact Statement. The civil grand jury wrote in 2004:



“There are deeply rooted social problems that result in part from systematic negligence dating back to World War II. The City of San Francisco has failed to invest significantly in this community for over 60 years.”

**Loss of industry in Bayview-Hunters Point.** The General Plan discusses the impact of the closure of the Hunters Point Shipyard, but does not mention the decision to move to containerized shipping, which reduced jobs in the commercial maritime industry. There is a significant history of biomedical innovation in the black community. Dr. Nathaniel Burbridge was a pharmacologist and professor at UCSF, but became known for leading the NAACP during the United San Francisco Freedom Movement.

Eric Williams, the son of Ruth Williams, the namesake for the Ruth Williams Memorial Theater in the Bayview Opera House, holds 20 patents for cardiac stents. A proposal to mark the 50th anniversary of the United Freedom Movement with a Nathaniel Burbridge Center for Innovation and Diversity located in the India Basin area has been ignored by city officials despite the evidence from the similar Impact Hub in Oakland, which has spawned close to 1,000 businesses in two years.

Kevin Epps, producer of the documentary Straight Outta Hunters Point, was also unable to gain city support for an incubator to develop media and online businesses. Other entrepreneurs seeking to provide clean renewable power have had a lack of interest from city officials.

The biggest need is to provide 5,000 industrial/assembly/distribution/construction jobs for residents of the area, not temporary event positions.

### Health Disparities

Blackwell wrote:

“Health surveys have shown that Bayview Hunters Point residents suffer from rates of cervical and breast cancer that are double those found in the other parts of the Bay Area, an asthma rate that is three times higher than in the rest of the state, and rates of hospitalization for congestive heart failure, hypertension, diabetes and emphysema that have been determined to be more than three times the statewide average. In addition, children living in the Bayview are far more likely to contract illnesses than children in the rest of the city, and infants are more likely to die.<sup>89</sup>

Income inequality is a significant factor for those health disparities, according to the San Francisco Dept. of Public Health’s Community Health Assessment.

“Although the median household income in San Francisco seems relatively high at \$70,040, San Francisco has the largest income inequality of the nine Bay Area counties... Income inequality is directly related to health inequality, with higher income linked to better health: the greater the gap between the richest and poorest people, the greater the differences in health.”

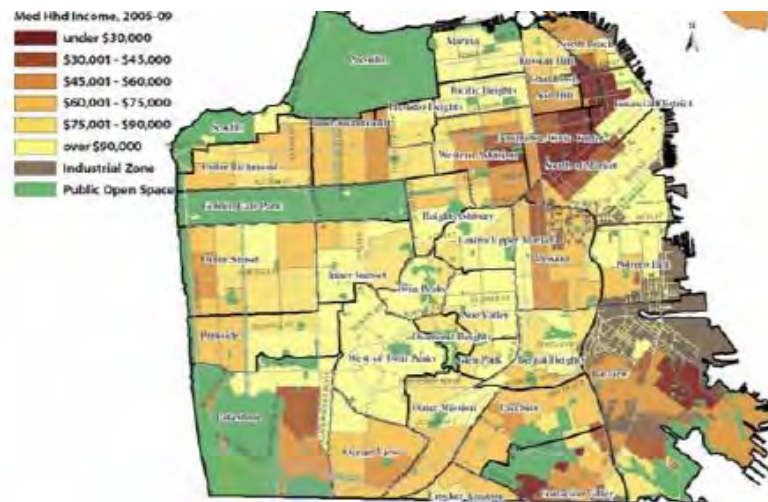


Figure 3 Income Inequality concentrated in District 10. Source San Francisco Dept. of Public Health



### **Reduction of Home Ownership.**

According to Sen. Diane Feinstein, California had the highest rate of mortgage fraud in the nation,<sup>90</sup> and the problem was concentrated in the Bay Area, with southeast San Francisco, particularly targeted.

This is particularly problematic because the South Bayshore planning district has the third highest percentage of single family homes in the city, with 66 percent. By contrast, downtown has only two percent single family homes.

“Larger households of four or more persons are generally found in the south- eastern neighborhoods of the Mission, Bayview, Visitacion Valley, and the Excelsior where typical housing units have two or more bedrooms.”

According to the 2014 Housing Element, the City has a responsibility to create more affordable housing:

“San Francisco’s share of the regional housing need for 2015 through 2022 has been pegged at 28,870 new units, with almost 60% to be affordable.”

However, the city’s affordable housing policies are not as useful as one might think for African-Americans. The maximum income to qualify for low-income housing allotments in San Francisco at 70 percent of the median income is 50 percent higher than the median income for African-Americans.<sup>91</sup> That means African-Americans are outbid for subsidized housing because their income is significantly less on average than any other group. Developments actually constructed by African-American churches and lodges find themselves hard pressed to accommodate long-time black residents due to the intense competition.

### **Foul Air**

In 1997, the asthma hospitalization rate for Bayview-Hunters Point African-American children was 820 per 10,000, the highest rate in California.

Air pollution has been linked to asthma, allergies, cardiovascular and respiratory diseases, cancer, neurological and reproductive disorders, and premature death (CARB 2009). In San Francisco, approximately 102,000 children and adults are currently diagnosed with asthma, with children and the elderly having significantly higher rates of asthma (CDPH 2011).<sup>92</sup>

The unavoidable impact of 18,000 persons using the toilet, along with potentially another 45,000 baseball fans smells to high heaven for the residents of southeast San Francisco.

“Sophie Maxwell, the member of the San Francisco Board of Supervisor’s whose district includes Bayview Hunters Point, lives within a few blocks of the Southeast sewage plant. In 2006, she told San Francisco Bay Guardian reporter Sarah Phelan that “every time [she] come[s] home and get[s] off the freeway, [she is] constantly reminded the plant is there.”

“You can smell it day and night,” Maxwell told Phelan. “It’s unacceptable.”

Originally constructed in 1952 with most of its operations placed outdoors, the plant was expanded in 1987 after a series of public hearings. To overcome residents’ resistance to the plans, the city agreed to construct a community college campus in the neighborhood. In addition, officials promised that the facility’s increased operations would not be noticeable and would result in “no odors.” The fact that those promises have not been kept is impossible to ignore on hot days when the aroma of fecal matter becomes especially repugnant.”

The Southeast Waste Treatment Plant uses 11 open air tanks and nine digesters compared to the Oceanside plant on the Great Highway, which is 1.5 miles from the nearest residence and uses an underground tunnel to send waste out into the ocean. Its operations can not be smelled outside



## Conclusion

During the first game of the 2015 NBA Finals, this writer visited restaurants featured in his 2005 exhibit to watch the series. Leaving Paul and San Carlos after the conclusion, he walked approximately 20 blocks to 4000 block of Third Street without having a single T-Line train pass.

After visiting at the historic Sam Jordan's, he then went to the Third and Evans station to wait for a train. It took 67 minutes to arrive, close to two hours without service.

It was consistent with his experience in the previous decade attending community meetings in the Excelsior district for the branch library campaign and in Bayview Hunters Point for the campaign for the brand new library opened last year. Like the young lady in the POWER report, waiting for the T-Line at Third and Revere always takes a lot of patience, particularly at night in the cold.

Since then, he has observed the patterns for other MUNI light rail lines, observing that they adhere to posted schedules. The T-Line is subject to switchback at Marin Street, dumping dozens of riders to a crowded sidewalk at the busy Cesar Chavez intersection.

A review of available evidence confirms the reasoned suspicion that the placement of an event arena and entertainment complex at Third and Sixteenth Street with a single MUNI stop serving it, not directly connected to the rest of the MUNI Metro system, would inexcusably impact a community which has traditionally caught the short end of City policy.

### Footnotes:

- <sup>1</sup> Harris, The Honorable Kamala D. "Environmental Justice at the Local and Regional Level Legal Background, Department of Justice, State of California, (p. 1) 2012
- <sup>2</sup> Transportation, U.S. Dept. of "Revised DOT EJ Strategy, March 2012 [http://www.fhwa.dot.gov/environment/environmental\\_justice](http://www.fhwa.dot.gov/environment/environmental_justice)
- <sup>3</sup> Templeton, John William "The History of Environmental Justice," video conference, Region 9, Environmental Protection Agency, San Francisco, February 2012
- <sup>4</sup> Templeton, op. cit. *Come to the Water: Sharing the Rich Black Experience in San Francisco, (ASPIRE SAN FRANCISCO)* 2010
- <sup>5</sup> Foster, Sheila D. "Critical Race Lawyering: Foreword," 73 Fordham L. Rev. 2027 (2005). Available at: <http://ir.lawnet.fordham.edu/flr/vol73/iss5/1>
- <sup>6</sup> Fair Housing and Equal Opportunity, National Commission on "The Future of Fair Housing" <http://www.civilrights.org/publications/reports/fairhousing/historical.html>
- <sup>7</sup> Ibid.
- <sup>8</sup> Candlestick Stadium, Oakland/Alameda County Stadium and Coliseum, Cow Palace for the San Francisco Giants, Oakland A's, Oakland Raiders, San Francisco 49ers and Golden State (San Francisco) Warriors
- <sup>9</sup> Clay, Roy, Sr. interviewee "Freedom Riders of the Cutting Edge," documentary, producers William Hammond and John William Templeton, Feb. 2009, KMTP-32 San Francisco
- <sup>10</sup> Templeton, op. cit. "Historical Resource Evaluation," African-American Service Center development, San Jose for Stevens and Associates Architects 2010
- <sup>11</sup> Morenek, Toshio "Affordable Housing Programs Affordable Only to the Affluent" <http://america.aljazeera.com/articles/2015/2/3/san-francisco-affordable-housing-is-unaffordable.html>
- <sup>12</sup> Goldman, Alexandra "The Google Shuttle Effect: Gentrification and San Francisco's Dot Com Boom 2.0" submitted in satisfaction of masters in city planning, UC-Berkeley, Spring 2013 p. 3
- <sup>13</sup> Roberts, Chris, "Socialists," "Racism," And "The American Way": Planning Commissioner Has Hot Takes On Election" San Francisco Weekly, Oct. 29, 2015 <http://m.sfweekly.com/thesnitch/2015/10/29/socialists-racism-and-the-american-way-planning-commissioner-has-hot-takes-on-election>
- <sup>14</sup> NBC Bay Area "Developers Don't Live Here: Bayview Resident says" Jan. 5, 2015 <http://www.nbcbayarea.com/news/local/Developers-Ddont-Live-Here-SF-Resident-on-Demolition-of-Candlestick-Park-287552431.html>
- <sup>15</sup> Pratkanis, Anthony and Turner, Marlene "The Year Cool Papa Bell Lost the Battling Title: Branch Rickey and the First Affirmative Action Program," Chap. 22 in *Our Roots Run Deep: the Branch Rickey and the First Affirmative Action Program*, Chap. 22 in *Our Roots Run Deep: the Black Experience in California, Vol. 2, 1900-1950* (ed.) Templeton, John William (ASPIRE SAN FRANCISCO)
- <sup>16</sup> Templeton, op. cit. *Come to the Water*,
- <sup>17</sup> Ibid. p.
- <sup>18</sup> Ibid. p.
- <sup>19</sup> Bialick, Aaron, "Warriors Arena Moving to Mission Bay: A Win for Transit Accessibility?" SFStreetsblog, April 23, 2014



- 20 Edwards, Harry "Crisis of Black Athletes on the Eve of the 21st Century," from *Society*, March/April pp. 9–13. Copyright © 2000 by Springer-Verlag New York Inc.
- 21 Planning, Dept. of Planning, Dept. of "Draft Subsequent Environmental Impact Report", Volume 1, p 1-1
- 22 Ibid.
- 23 Golden State Warriors-UCSF Memorandum of Understanding 10-7-2015
- 25 Planning, Dept. of "Draft Environmental Impact Statement Third Street Light Rail April 3, 1998 p. S-1
- 26 "Mission Rock Affordable Housing, Jobs and Historic Preservation Initiative," ballot argument for Nov. 3 election [http://sfgov2.org/ftp/uploadedfiles/elections/candidates/Nov2015/MissionRock\\_Text.pdf](http://sfgov2.org/ftp/uploadedfiles/elections/candidates/Nov2015/MissionRock_Text.pdf)
- 27 Dineen, J.K. "Last part of Mission Bay North gets under way," *San Francisco Chronicle* May, 24, 2015 <http://www.sfchronicle.com/bayarea/article/Last-part-of-Mission-Bay-North-housing-6284483.php>
- 28 Port of San Francisco, Pier 70 Preferred Master Plan, p. 1
- 29 Planning, Dept. of Schlage Lock Project Fact Sheet, Public Benefits and Features
- 30 Fimrite, Peter, "Housing blooms at last at once toxic Hunters Point shipyard site," June 8, 2015 *San Francisco Chronicle*
- 31 POWER "Next Stop: Justice: Race and Environment at the Center of Transportation Planning," 2012 p. 4
- 32 Ibid. p.
- 33 Planning, Op. cit. Third Street Light Rail p. 3-2
- 34 Civil Grand Jury, Op. cit. p. 22
- 35 Ibid. p. 6
- 36 Messmer, Patrick D. "Inner Cities, Private to Private Eminent Domain Transfers and Public Financing of Stadiums, Seton Hall Law School [http://scholarship.shu.edu/cgi/viewcontent.cgi?article=1269&context=student\\_scholarship](http://scholarship.shu.edu/cgi/viewcontent.cgi?article=1269&context=student_scholarship)
- 37 Planning, Op. Cit. Draft Environmental Impact Statement, Third Street Light Rail, p. S-1
- 38 Planning, Dept. of "San Francisco General Plan-Bayview-Hunters Point Policy 4.3 [http://www.sf-planning.org/ftp/general\\_plan/Bayview\\_Hunters\\_Point.htm#BHP\\_TRA\\_4\\_3](http://www.sf-planning.org/ftp/general_plan/Bayview_Hunters_Point.htm#BHP_TRA_4_3)
- 39 Johnson, Jason "New look at black restaurateurs: photo exhibit highlights diversity of cuisine, culture," *San Francisco Chronicle*, Aug. 13, 2005
- 40 Planning, Op. Cit. Third Street Light Rail 1998 p. S-4
- 41 Controller, City and County of San Francisco Biennial City Performance Survey <http://sfcitysurvey.weebly.com/muni.html>
- 42 Controller, Quarterly Government Barometer, April-June 2015 <http://sfcontroller.org/Modules/ShowDocument.aspx?documentid=6693>
- 43 Controller, *Ibid.*
- 44 Planning, Op. Cit. Third Street Light Rail 1998 p. S-2
- 45 Planning. *Ibid.* p. S-2
- 46 Controller, City Survey 2015, Muni <http://sfcitysurvey.weebly.com/muni.html>
- 47 Planning, Op. Cit. Third Street Light Rail 1998 p. S-2
- 48 Civil Grand Jury, Superior Court "Central Subway: Too Much Money for Too Little Benefit," 2010-2011 term.
- 49 Ibid. p. 15
- 50 Polaris Research and Development "The Unfinished Agenda: The Economic Status of African-Americans in San Francisco, 1964-1990
- 51 Planning, Op. cit. "Third Street Light Rail EIR," 4-26
- 52 National Educational Television "Take This Hammer," featuring James Baldwin (1963) produced by KQED <https://vimeo.com/13175192>
- 53 Ibid.
- 54 Templeton, John William (curator) "Students and Scholars Marching for Civil Rights exhibition of the 50th anniversary of the United San Francisco Freedom Movement, San Francisco Fairmont, Civic Center Holiday Inn public program featuring Dr. Oba T'Shaka, emeritus professor of black studies, San Francisco State University (Bill Bradley Jr)
- 55 Bayview's Last Stand, third annual Preserving California Black Heritage conference at Southeast campus, City College, September 2009 featured community artifacts day at Sam Jordan's Bar
- 56 Ibid.
- 57 Ibid.
- 58 Simers, T.J. THE NFL / T.J. SIMERS: 'Ours' for the Taking? : If Stadium Referendum in San Francisco Fails Today, the L.A. 49ers Might Not Be as Crazy as It Sounds *Los Angeles Times* June 3, 1997 [http://articles.latimes.com/1997-06-03/sports/sp-65243\\_1\\_san-francisco-49ers](http://articles.latimes.com/1997-06-03/sports/sp-65243_1_san-francisco-49ers)
- 59 Dineen, Op. Cit. *San Francisco Chronicle*, May 24, 2015
- 60 Johnson, Op. Cit., *San Francisco Chronicle*, Aug. 13, 2005
- 61 Planning, Op. Cit. Third Street Light Rail EIR p. 5-13
- 62 Messmer, Op. Cit.
- 63 Census, U.S. American Community Survey 2015
- 64 Human Rights Commission, "Report of the San Francisco Mayor's Task Force on African-American Outmigration" 2009



- <sup>65</sup> O'Conner, Lydia "Black Business Leaders Call for Boycott of San Francisco Tourism," Huffington Post Dec. 23, 2013 [http://www.huffingtonpost.com/2013/12/23/black-boycott-san-francisco-tourism\\_n\\_4494850.html](http://www.huffingtonpost.com/2013/12/23/black-boycott-san-francisco-tourism_n_4494850.html)
- <sup>66</sup> Budget and Legislative Analyst, Board of Supervisors "Analysis of the Impact of the 34th America's Cup to the City" Feb. 10, 2014
- <sup>67</sup> Lang, Marissa "Companies avoid \$34 million in city taxes thanks to "Twitter tax break," San Francisco Chronicle Oct. 19, 2015
- <sup>68</sup> Holloway, Lynette "Doors shuttered at Nation's Oldest Black Bookstore," The Root, May 11, 2014 [http://www.theroot.com/articles/culture/2014/05/marcus\\_books\\_the\\_nation\\_s\\_oldest\\_black\\_bookstore\\_closes.html](http://www.theroot.com/articles/culture/2014/05/marcus_books_the_nation_s_oldest_black_bookstore_closes.html)
- <sup>69</sup> Public Advocates "BART/Oakland Airport Connector" Sept. 3, 2009 <http://www.publicadvocates.org/bartoakland-airport-connector-oac>
- <sup>70</sup> POWER, Op. cit. Next Stop: Justice pg. 8
- <sup>71</sup> Evangelista, Benny "Tech employees work from home to avoid 49ers---Seahawk traffic," San Francisco Chronicle, Oct. 22, 2015 <http://www.sfgate.com/business/article/Tech-employees-work-from-home-to-avoid-6585010.php>
- <sup>72</sup> Ibid.
- <sup>73</sup> Ibid.
- <sup>74</sup> Zumper National Rent Report San Francisco remained the most expensive market in the United States for the ninth straight month, with median 1-bedroom rents rising to \$3,460, the highest ever recorded. The gain was particularly notable considering that NYC, the second most expensive market, saw rents plateau in February, even after a slight drop of 3.2% <https://www.zumper.com/blog/2015/03/zumper-us-rent-report-february-2015/>
- <sup>75</sup> Dai, Danielle, Weinzimmer, David "Riding First Class: Impacts of Silicon Valley Shuttles on Commute and Residential Location Choice" working paper, UC-Berkeley Department of City Planning
- <sup>76</sup> Said, Carolyn "The AirBnb Effect" *San Francisco Chronicle* July 12, 2015 <http://www.sfchronicle.com/airbnb-impact-san-francisco-2015/#1>
- <sup>77</sup> Phelan, Sarah "Saving the southeast" San Francisco Bay Guardian May 13, 2009
- <sup>78</sup> Planning, Op. cit. "Third Street Light Rail EIR, p. S-3
- <sup>79</sup> BART "Warm Springs Extension Title VI Equity Analysis and Public Participation Report" May 7, 2015 p. 5
- <sup>80</sup> Ibid.
- <sup>81</sup> Ibid.
- <sup>82</sup> Public Advocates, Op. cit.
- <sup>83</sup> Hsiao, Peter, et.al. "Environmental Justice as Environmental Impact: the Intersection of Environmental Justice, Climate Change and the California Environmental Quality Act" Bloomberg BNA World Climate Change Report Vol. 2012 No. 48 March 12, 2012 p.
- <sup>84</sup> Bonoris, Steven (ed.) *Environmental Justice for All: A Fifty State Survey of Legislation, Policies and Cases (fourth ed.)* American Bar Association 2010 p. iv
- <sup>85</sup> Air Resources Board, California "Policies and Actions for Environmental Justice" 2001
- <sup>86</sup> Ibid. p. 1
- <sup>87</sup> Ibid. p. 10
- <sup>88</sup> Federal Transit Administration "BART Title VI Final Draft 2009" 2009
- <sup>89</sup> Blackwell, Savannah Environmental Justice "Real World" Pathfinder: Bayview Hunters Point, San Francisco UC-Berkeley School of Law Jan. 26, 2009 [savannahblackwell.com](http://savannahblackwell.com)
- <sup>90</sup> Feinstein, Sen. Diane "Mortgage Fraud and America's Foreclosure Crisis" 2010 p. 7
- <sup>91</sup> Planning, Op. Cit. Housing Element
- <sup>92</sup> Public Health, Dept. of "Climate Action and Health Co-Benefits"

(John William Templeton, email, November 2, 2015 [I-Templeton-1])

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The Subsequent EIR violates, procedurally and substantively, every tenet of California's pioneering Environmental Justice Law and a 1994 federal executive order.

I've submitted a 40-page document that spells out the many ways that the characterization of impacts fails to take into account the cumulative effects of 70 years of land use inequity.

When I heard Planning Commissioner Ed Maley's (phonetic) objectionable remarks last week, I conducted a critical race theory analysis of this EIR to see that it substantially -- in trying to assemble this into a document, that certain groups of people are more valuable than others -- this measure breaks a covenant with the people of southeast San Francisco that \$2.2 billion spent on their T Lines would link them to the rest of the City, and negatively impacts them for a generation to come.

In 1951, U.C.S.F. had the opportunity to play in the Cotton Bowl with the condition that they had to leave their black players behind. They turned down the invitation.



We shouldn't leave our impacted communities behind in order to approve this ill-conceived project.  
(John William Templeton, Transcript, November 3, 2015 [PH2-Templeton-1])

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## Response to Late Comment GEN-2: Environmental Justice

The commenter states that the SEIR "falls short" of the standards on the "California Environmental Protection Act" (assumed to mean the California Environmental Quality Act or CEQA) and raises a range of environmental justice issues. The commenter also states that the project "falls short" of the standards of the Executive Order 12898 regarding environmental justice in minority and low-income populations, but this regulation is not applicable to the proposed project because it is neither subject to federal approval actions nor involves federal programs. The commenter also notes a number of issues related to the Bayview-Hunters Point area, which is located south of the project area, and these issues do not apply to the Mission Bay area. OCII acknowledges the commenters concerns, including those related to environmental justice, but for the reasons described below, this response focuses on the issues raised with respect to compliance with CEQA and the adequacy of the SEIR.

CEQA requires that if substantial evidence shows that a proposed project may result in significant adverse *physical* changes, then an environmental impact report must be prepared that fully describes the environmental effects of the project before the project can be approved. The SEIR on the Event Center and Mixed-Use Development at Mission Bay Blocks 29-32, including both the Draft SEIR and the Responses to Comments document, accomplishes this and complies with all applicable CEQA requirements by fully disclosing all adverse *physical* environmental effects of the proposed project. Under CEQA, economic or social effects are not treated as significant effects on the environment, though CEQA is concerned with any physical effects that are reasonably foreseeable consequences of economic or social effects. CEQA states "the focus of the analysis shall be on the physical changes" (CEQA Guidelines Section 15131). Here, there are no economic or social effects identified in the SEIR that would result in any significant environmental impacts. Consequently, no analysis of economic or social effects is presented in the SEIR. Environmental justice—defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies—is essentially an economic and social issue, rather than a physical environmental effect.

Notably, contrary to the commenter's apparent assumption, nothing in CEQA specifically requires lead agencies to consider environmental justices issues. Past legislative efforts to insert such a requirement into CEQA have not been successful. In this respect, CEQA differs from the federal National Environmental Policy Act (NEPA), which does not apply to the project due to the lack of any needed federal agency approvals. As noted earlier, federal Executive Order 12898, issued by President Bill Clinton, requires a consideration of such issues. In particular, that document requires that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate,



disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands.”

Therefore, with respect to the adequacy of the SEIR in fulfilling the requirements of CEQA, this response addresses only the specific issues raised by the commenter that relate to potential physical effects of the project and does not address comments regarding economic or social issues.

### *Transit Impacts*

The commenter raises several concerns regarding the impacts of the project on transit service, and specifically the T Third line.

The existing Muni service on the T Third and 22 Fillmore is described on SEIR pp. 5.2-16 – 5.2-19, and planned service to the project vicinity as part of the Central Subway project and Muni Forward are described on SEIR pp. 5.2-16 – 5.2-20. The Central Subway project includes a below-grade pedestrian connection between the Union Square/Market Street Central Subway station and the Powell Street Muni/BART station to allow for transfers between the Central Subway, other Muni light rail lines, and BART. It should be noted that the T-Third service to which the commenter refers to is only Phase 1 of the Central Subway. The ultimate service along the T Third will see greatly improved, more reliable, and higher capacity service along the entire length of Third Street and into Chinatown once the Central Subway is completed.

The transit impact analysis for local Muni service presented in Impact TR-1 and Impact TR-13, for conditions without and with an overlapping SF Giants game at AT&T Park, assumed service levels that would be in place following completion of the Central Subway project, and assumed that additional transit service in the form of a system of transit shuttles and increased light rail service would be provided to supplement the T Third light rail line and the 22 Fillmore bus route that are the primary transit service in the area. The provision of the additional Muni service during events would address increased service needs from the event center and as a result, there would be no decrease in the existing T Third service south of the project site (i.e., to the Bayview).

The Muni Special Event Transit Service Plan, which would be provided as part of the proposed project, is intended to avoid the possibility that special events would overwhelm the existing transit system. It would do so by providing additional options to accommodate attendees traveling to and from the event center. The Muni Special Event Transit Service Plan is described in detail on SEIR pp. 5.2-53 - 5.2-55, where the additional light rail service and special event shuttles are described; Table 5.2-15 presents the proposed service levels for the various event sizes; and Figure 5.2-10 presents the routes proposed for the Muni Special Event Shuttles. The three primary components of the Muni Special Event Transit Services Plan are (i) the “Muni Special Event 16th Street BART Shuttle,” which would run on 16th



Street between the event center and the 16th Street BART station; (ii) the “Muni Special Event Van Ness Avenue Shuttle,” which would run between the event center and Fort Mason; and (iii) the “Muni Special Event Transbay Terminal/Caltrain/Ferry Building Shuttle,” which would loop between the event center, the new Transbay Terminal, and the Ferry Building via Fourth, King, Third, Folsom, Fremont, and Mission Streets.

Impacts of the proposed project on Muni transit is presented in Impact TR-4 for conditions without a SF Giants evening game at AT&T Park, and Impact TR-13 for conditions with a SF Giants game at AT&T Park. During overlapping events, implementation of Mitigation Measure M-TR-13 would provide enhanced Muni Special Event Shuttles rather than additional light rail along The Embarcadero to serve the project site, as the additional light rail along The Embarcadero would be used to accommodate the AT&T Park transit ridership. The SEIR does not propose increased use of shared car service, or assume that existing riders on the T Third light rail line or the 22 Fillmore bus route would need to use such services. As noted above, the provision of the Muni Special Event Transit Service Plan during events is designed to accommodate event center uses so that the existing T Third service south of the project site is not affected by event center transit demand.

The comment is correct in that the SEIR identified significant regional transit impacts in Impact TR-5 and Impact TR-14. The regional transit impact analysis did not assume any additional regional transit service would be provided for events at the event center.

Impacts TR-18 to TR-24 on SEIR pp. 5.2-190 – 5.2-208 present the potential impacts that could occur for the transportation topics if all or a portion of the Muni Special Event Transit Service Plan is not provided. Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring identifies measures that could be implemented by the project sponsor to meet specific performance standards. The purpose of this analysis was to identify the potential impacts if the project did not include the Muni Special Event Transit Service Plan and to establish performance standards that the project sponsor would be required to meet to reduce traffic, transit, and pedestrian impacts (i.e., Mitigation Measure M-TR-18 and Mitigation Measure M-TR-22). The analysis of traffic impacts assumes the existing traffic volumes and roadway network, which reflect changes to Third Street following implementation of the T Third light rail. Impacts of the proposed event center would occur primarily in the vicinity of the project site, and on the access routes to and from I-280 and I-80 freeway ramps north of Mariposa Street. The proposed project is not anticipated to result in a substantial increase in traffic volumes along Third Street south of Mariposa Street, and therefore would not be expected to substantially affect vehicular and pedestrian travel within or to and from the Bayview-Hunters Point area.

### *Odors and Wastewater*

The comment describes odors from the existing wastewater treatment plant located in southeast San Francisco, the Southeast Water Pollution Control Plant. That issue does not relate to the impacts of the event center and is currently being addressed by the San Francisco Public Utilities Commission (SFPUC) as part of its Sewer System Improvement Program,



which includes the Biosolids Digesters Facility Project. Completely unrelated to the proposed project, the Biosolids Digesters Facility Project is being proposed to replace the solids treatment system at the Southeast Plant, a major source of odors, and is currently undergoing CEQA environmental review, with construction of the project scheduled to start in 2017.

The commenter states that the impact of toilet use by the 18,000 persons at the event center combined with 45,000 baseball fans would result in odor issues for residents of southeast San Francisco. The commenter is mistaken. As described in the SEIR, the proposed project would result in an increase in wastewater generation, but this increased wastewater volume is negligible compared to the overall volume of wastewater treated at the Southeast Plant and well within the existing capacity of the City's wastewater treatment system. Therefore, the project would not result in physical changes to the existing conditions in the vicinity of the Southeast Plant with respect to odors.

#### *Historic Character of the Neighborhood*

The commenter states that major league sports have a responsibility to protect the historic character of the neighborhoods. Historic resources were addressed as part of the 1998 Mission Bay Final Subsequent Environmental Impact Report, and the Initial Study for the proposed project determined that there were no historic architectural resources within or in proximity to the project site. Therefore, the project's impacts on historic resources were determined to be less than significant.

#### *Air Pollutant Emissions*

In response to comments received during the public review period, the Responses to Comments document includes a response to perceived environmental justice issues related to air quality impacts in Volume 4, Section 13.2, pp. 13.2-10 to 13.2-11. As stated in Response GEN-3 of the RTC document, EIR analyzes the potential for the project to result in localized impacts on air quality that would affect the local neighbors. The SEIR describes how the project would result in increased emissions of air pollutants during both construction and operations. The SEIR determined that increased emissions of certain air pollutants would result in significant, regional air quality impacts that would affect the entire San Francisco Bay Area Air Basin and not a localized area, because these pollutants are transported and diffused by wind concurrently with ozone production through photochemical reaction processes. Consequently, mitigation of this impact related to increased emissions of criteria air pollutants is identified on a region-wide or air basin wide scale, and not to the localized neighborhood or project vicinity.

However, the SEIR also analyzes the potential for the proposed project to generate toxic air contaminants that could expose sensitive receptors to substantial air pollutant concentrations. This analysis considers the air quality effects of the project on the local residents and includes a health risk assessment of the likelihood of both increased cancer risk and localized PM<sub>2.5</sub> concentrations from both construction and operational sources. This analysis accounts for the cumulative conditions of the localized air quality in the project area associated with other existing sources, such as proximity to vehicular traffic on the adjacent



highways and roadways. The commenter mentions two power plants as a source of cumulative effects, but the Hunters Point and Potrero power plants. These two plants formerly operated in the southeast part of the City, and no longer contribute to cumulative air quality impacts. The wastewater treatment plant mentioned by the commenter contributes to regional air quality conditions, but is too distant from the project site to contribute to localized air quality effects in the Mission Bay area. The analysis determined that the project's impact on annual average PM<sub>2.5</sub> concentrations and lifetime excess cancer risk at the closest sensitive receptors (UCSF Hearst Tower and UCSF hospital) would not exceed the applicable significance thresholds, and this impact would be less than significant. See Sections 13.2 and 13.13 of the RTC document for further discussion.

### *Population/Housing/Jobs*

The commenter asserts (page 15 of the attachment) that there is no evidence to suggest that the arena would have any benefit to the southeast San Francisco community, and that any such jobs would be simply transferred from the East Bay into San Francisco with no net gain in opportunity. However, the Initial Study, Section 3, Population and Housing, states that the Golden State Warriors, and office and retail development would employ an estimated 2,728 full-time equivalent (FTE) workers at the project site, of which the great majority (2,578 FTE workers) would be employed at new jobs attributable to the project. In addition, the project would provide 1,000 day-of-game/event jobs to serve the event center. With respect to the day-of-game/event jobs, since Oracle Arena would continue to serve as an event venue, and simultaneous events would occur at Oracle Arena and the proposed new event center, many of the day-of-game/event at the event center would be considered new to the City.

The commenter cites (page 31 of the attachment) the impact statement from Initial Study Impact PH-1 [*Construction of the proposed project would not induce substantial growth in the area, either directly (for example, by constructing new homes or businesses) or indirectly (for example, through extension of roads or other infrastructure.) (Less than Significant)*]. The commenter then asserts that the event center would not create any additional jobs, but would attract absentee residents to bid up nearby properties so that they could be near the arena; that the event center would reduce the supply of housing due to services such as AirBnb; and references the growth in commuter shuttle bus use. First, Impact PH-1 addresses project construction-related effects on growth; whereas the commenter's comments are related to potential effects post-construction. Secondly, as described above, the project would create additional new permanent FTE and day-of-game/event jobs. Third, the project description does not include any activities associated with purchasing or renting off-site residential uses near the event center, or with commuter shuttle bus use. In any case, as described above, assessment of economic or social effects is not within the purview of CEQA.

The commenter then cites the impact statement from Initial Study Impact PH-2 [*Construction of the proposed project would not displace existing housing units or create substantial demand for additional housing. (Less than Significant)*]. The commenter asserts the City and County of San Francisco is 7,000 units short of replacing housing removed by redevelopment activity



according to the Housing Element; and that Section 8 applicants are currently referred to sites outside the City and homeless African-American women are given tickets to leave the area in return for assistance. First, Impact PH-2 addresses potential project construction-related effects on displacement of housing; and as discussed in Impact PH-2, implementation of the Mission Bay plan did not displace any existing housing units on the project site, and the proposed project on Blocks 29-32 would not change that condition. Second, the project involves no elements that would affect the Section 8 housing process in the City. Any concerns regarding that process are wholly independent of, and unrelated to, the proposed project. In any case, as described above, assessment of economic or social effects is not within the purview of CEQA.

The commenter then cites the impact statement from Initial Study Impact PH-4 [*Operation of the proposed project would not induce substantial population growth in the area, either directly (for example, by constructing new homes or businesses) or indirectly (for example, through extension of roads or other infrastructure). (Less than Significant)*]. The commenter then asserts that this is not a credible statement given the rapid growth of Mission Bay. As discussed in Impact PH-4, under project operation, while the estimated jobs created by the project would incrementally further increase the jobs/housing imbalance that was described for the Mission Bay Plan Area in the 1998 Mission Bay FSEIR, the estimated slight increase in this offset created by the project would be accommodated by housing elsewhere in- and outside the City. Furthermore, since employment generated by the project could be met by the local and regional labor force, the project impact related to direct growth inducement would be less than significant. Lastly, project operation would not involve the extension of roads or other infrastructure except to the project site itself, at a location already well served by roads and other infrastructure, including previously approved improvements to roads and infrastructure associated with overall Mission Bay Plan development, and consequently, project indirect impacts on population growth of project operation would be less than significant.

### ***Hazards***

The commenter refers to the cumulative effects of a Superfund site. However, the project site is not located on or near a Superfund site, so there would be no cumulative effects. Nevertheless, the SEIR describes and analyzes the environmental impacts associated with hazardous materials in the SEIR Initial Study, Section E16 (pp. 106 to 122), as augmented by Responses to Comments, Section 13.22. As described in the SEIR, impacts related to hazardous materials, including those associated with contaminated soils and groundwater, were determined to be less than significant with implementation of identified mitigation measures and compliance with applicable regulations designed to protect the public and the environment from exposure to hazardous materials.

Please see RTC document Section 13.2.4 for further discussion of environmental justice issues.



## Issues Raised by Late Commenters on Urban Decay

This response addresses all or part of the following comments, which are quoted below:

O-MBA16S6-9      O-MBA16S6-14

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### 8. Urban Decay

The Alliance previously commented that the DSEIR ignored altogether the potentially significant urban decay impacts associated with eliminating NBA events at the existing Oracle Arena. Rather than prepare the required analysis in good faith and recirculate the RDEIR with this new information as required by CEQA, the City instead hired a consultant to prepare a post hoc rationalization for why no analysis was required in the first place. (See FSEIR, Appendix UD.) The Alliance has again retained its independent expert, Dr. Philip King, to review the FSEIR's analysis. Dr. King's report is attached hereto as Exhibit 4, and incorporated by reference. As explained by Dr. King, the FSEIR's analysis is riddled with methodological errors and does not actually respond to Dr. King's original analysis explaining why it is a potentially significant impact requiring analysis. (*Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-9]*)

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Unfortunately, the consultants mischaracterized many of the arguments that I presented. This memo will provide my responses to ALH's comments in detail. Here are the key points:

- ALH argues that I do not provide a definition of urban decay. My discussion of the definition of urban decay was limited because the legal definition of urban decay is well-understood by now. ALH provides a definition of urban decay which is consistent with my understanding. The differences between my expert opinion and ALH's have nothing to do with the definition of urban decay, but its significance in this case. It is my professional opinion that the loss of spending and jobs will exacerbate urban decay in this area, which the City itself designated as "blighted."
- ALH conflates revenues and spending and argues that my analysis left out key revenue sources, in particular TV revenues. While it is true that we did not specifically mention TV revenues, our data (from Forbes) on the GSW spending would include all revenue sources including TV revenues.
- ALH argues that the move of the GSW from Oakland will not lead to a transfer of jobs. They cite the lower cost of living in the East Bay. However, an analysis of commuter patterns provided below indicates that, in fact, the percentage of workers who commute from the East Bay to San Francisco is relatively small and consistent with our analysis.
- ALH argues that another team will be attracted to the area and cites the City of Oakland's Coliseum Redevelopment Area. However, numerous articles in Bay Area newspapers and the professional sports media indicate that this plan has struggled to gain support from developers who would be needed to finance the project or the two major professional sports teams who use the adjacent Oakland Coliseum, the Oakland A's and the Oakland Raiders. Indeed the Oakland Raiders are one of three candidates widely touted to move (back) to Los Angeles, which has no NFL team.

In more detail, here are my responses to the ALH memo.

- In it's memo ALH states that:  
  
"Dr. King's memo does not include a definition of urban decay. Generally speaking, urban decay is characterized by physical deterioration to properties or structures that is so prevalent, substantial, and lasting a significant period of time that it impairs the proper utilization of the properties and structures, and the health, safety, and welfare of the surrounding community. The focus of CEQA review is on whether a project will result in



impacts on the physical environment. CEQA directs the lead agency to consider economic effects, to the extent those effects have the potential to culminate in physical environmental effects (CEQA Guidelines, § 15131). Characteristics of physical deterioration contributing to urban decay include abandoned buildings, boarded doors and windows, parked trucks and long-term unauthorized use of the properties and parking lots, extensive or offensive graffiti painted on buildings, dumping of refuse or overturned dumpsters on properties, dead trees and shrubbery, and uncontrolled weed growth. This is the context of urban decay that ALH Economics deems relevant to the response herein.”

I agree my memo did not spend a great deal of time defining urban decay since the legal literature here is reasonably clear. I accept ALH’s definition.

- In their memo ALH states:

“Dr. King’s analysis is based on the assumption that all Warrior’s revenues derive from ticket sales to patrons living in the East Bay, San Francisco, and the Peninsula. However, there are numerous other revenue sources, such as merchandise sales and media revenues, and ALH Economics found that only 76% of ticket sales originate from the areas identified by Dr. King. Further, Dr. King’s analysis of a generalized economic impact on Alameda County does not lead to the conclusion that urban decay will result in a specific location.”

My analysis was based on an estimate of spending derived from Forbes magazine, which ALH did not dispute. (Since ALH has better access to this data I assume they would have disputed this figure if it were too high.)

The confusion that runs like a thread through the ALF report is as follows: they confuse the sources of spending at Warriors games with economic impact that this spending causes within Alameda County. They do this in two ways:

- First, the place of residence of those who attend Warriors games (whether they come from the East or West Bay) is totally irrelevant. Whether these fans are from Oakland or New York City, what matters is that whereas before their money was being spent in Alameda County, this money is now being spent in San Francisco.
  - Second, my report took the sources of Warriors’ revenue as irrelevant, and focused instead upon the ways in which this revenue was spent by the organization. Thus, for the purposes of our report, whether that money came from ticket sales, TV contracts, or concession stands of various kinds was totally beside the point. What mattered to us was whether the money was going to local employees, players’ salaries or reinvested within the organization.
- Further, there are, however, numerous ways in which the ALH report misrepresents these figures and the nature of IMPLAN analyses in general.
    - First, IMPLAN uses the same methodology as all U.S. government calculations for GDP, etc. in that the employment numbers represent the location of the jobs themselves and not the residence of the person who perform those jobs. Even if many of these employees will not have to relocate or find a new job, their job still moves from one county to another.<sup>1</sup>
    - Second, the employment numbers provided by IMPLAN do not directly translate into the full-time job estimates (FTE) provided in other EIRs. Within IMPLAN, each job within the professional sports/spectator industry is roughly equivalent to 85% of 1 FTE.<sup>2</sup>
    - Third, the employment numbers do NOT represent the number of people directly employed by the Warriors organization, but also include those employed by other companies (concession stands, parking attendants, etc.).<sup>3</sup>
    - Our original report generously assumed that 74% of the Warriors annual spending was non-local (or “leaked”) in nature. While the ALH report criticized the arbitrary nature of



these leakage estimates, a proper remedy of this point, again, works against the ALH's stated goal. The non-arbitrary approach which ALH seems to advocate would have us acknowledge that the leakage rates that are native to the professional sports/spectator industry are already built into the IMPLAN model. Such an analysis would estimate a much larger economic impact.<sup>4</sup>

- ALH argues that the move of the GSW from Oakland will not lead to a transfer of jobs. They cite the lower cost of living in the East Bay. The statistics they provide, however, only distract from other, more directly relevant data. The US Census Bureau keeps statistics on commuting within the Bay Area. Only 12.16% of people working in San Francisco commute from Alameda County, which is consistent with our analysis.<sup>5</sup>
- ALH argues that the departure of the Golden State Warriors is not an issue since the City of Oakland's Coliseum Redevelopment Area will bring in other sports teams. However, the local news media, as well as the sports media, have covered this issue extensively and it's clear that the City of Oakland, while enthusiastic about bringing in another sports team, is having difficulty finding a private developer to fund the project. This project is estimated by one source (cited below) to cost \$400 million.
  - Several new media articles within the last month indicate that developers are reluctant to invest money in the Oakland Coliseum Redevelopment Area. This RDA is particularly problematic since the Oakland Raiders have been widely mentioned in the media as possible candidates to move to their old home in Los Angeles, or elsewhere. The Raiders could also move to Levi's stadium in Santa Clara, where the 49ers play, though this idea is unpopular.
  - Here are two recent quotes:

-“Oakland's most recent stadium proposal — Mayor Jean Quan's Coliseum City retail-office-housing scheme — sank without a trace when neither the Raiders nor A's would climb aboard.<sup>6</sup>”

“The Raiders share a clearly substandard facility with Major League Baseball's Oakland Athletics and, simply, there is no plan. A potential financing partner, Floyd Kephart, dropped out, leaving a \$400 million funding gap that neither Oakland city officials nor Alameda county officials can figure out how to fill. There still remains the remote possibility of the Raiders sharing Levi's Stadium with the 49ers, although both teams loathe that idea. The Raiders seem a certain candidate for relocation.<sup>7</sup>”
- Contrary to ALH's rosy analysis, the City of Oakland has struggled to find support for this plan.<sup>8</sup> Thus any conclusion that the Oracle Arena can find another sports team is speculation.

**Consequently, in my professional opinion, ALH's responses fail to deal directly with my analysis. On the issue of other sports teams entering the market, the evidence as it stands today indicates that it's unlikely in the foreseeable future that another NBA team will locate to Oakland (and ALH provides no evidence that any team is interested). Further, the possibility of the Oakland Raiders moving would exacerbate the situation. While the City of Oakland is clearly eager to get a new NBA franchise, the media reports indicate that the City's efforts have not been fruitful and any discussion of future teams occupying that space is speculative.**

**Footnotes:**

- <sup>1</sup> Contrary to what the ALH report suggests, only 3.14% of those employed within Alameda County reside within SF, while only 12.16% of those employed within SF commute from Alameda County. <http://www.vitalsigns.mtc.ca.gov/commute-patterns#chart-0>
- <sup>2</sup> [https://implan.com/index.php?view=document&alias=4-536-fte-a-employment-compensation-conversion-table&category\\_slug=536&layout=default&option=com\\_docman&Itemid=1764](https://implan.com/index.php?view=document&alias=4-536-fte-a-employment-compensation-conversion-table&category_slug=536&layout=default&option=com_docman&Itemid=1764)
- <sup>3</sup> Compare to the estimated 771 jobs that are provided by the A's. [https://salsa.wiredforchange.com/o/5782/images/FinalStadiumReport\\_04.21.10.pdf](https://salsa.wiredforchange.com/o/5782/images/FinalStadiumReport_04.21.10.pdf)
- <sup>4</sup> See <http://www.santaclara.org/pdf/49er-Stadium-Impact-Study.pdf> in which this same reasoning is applied to the 49er's new stadium.



<sup>5</sup> See <http://www.vitalsigns.mtc.ca.gov/commute-patterns#chart-0>

<sup>6</sup> See San Francisco Chronicle: "Oakland mayor trying to put together new stadium deal for Raiders By Matier & Ross, October 30, 2015 Updated: November 1, 2015 12:35am, <http://www.sfchronicle.com/bayarea/matier-ross/article/Oakland-mayor-trying-to-put-together-new-stadium-6602228.php>.

<sup>7</sup> See The Race for L.A. Heats Up, <http://mmqb.si.com/mmqb/2015/10/22/nfl-los-angeles-relocation-stadiums-chargers-rams-raiders>.

(Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-14])

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### Response to Late Comment GEN-3: Urban Decay

Please see RTC document Section 13.2.5 and Appendix UD for discussion of urban decay issues, which describes in detail that urban decay is not an explicit CEQA topic identified in the CEQA Guidelines. Further, economic impacts are not required be analyzed in a CEQA document unless they have the reasonably foreseeable indirect effect of leading to physical changes in the environment, such as urban decay. As described below, and in the RTC document Section 13.2.5 and Appendix UD, OCII has considered the potential for urban decay during the environmental review for the project and determined that it is not reasonably foreseeable that the project will result in significant urban decay impacts. Notwithstanding the commenter's disagreement, OCII's determination that the project will not result in significant urban decay impacts is supported by substantial evidence. (See *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1183 [an agency's determination that there will be no significant urban decay impacts is reviewed for substantial evidence in light of the entire administrative record].)

ALH Urban & Regional Economics (ALH Economics) has reviewed the November 2, 2015 memo from Philip King, Ph.D. to Patrick Soluri, Attorney at Law (Comment O-MBA16S6-14), regarding Dr. King's comments on the ALH Economics September 30, 2015 urban decay letter report, as presented in the RTC document Section 13.2.5 and Appendix UD. This response also addresses comments provided by Dr. King in his July 13, 2015 comments pertinent to the environmental documentation associated with the relocation of the Golden State Warriors to San Francisco (Comment O-MBA7S2-91 in the RTC document).

The November 2, 2015 memo from Dr. King does not present any new information that would lead OCII to reach a different conclusion regarding the potential for urban decay impacts. As explained in the RTC document (Response GEN-4: Urban Decay) the commenter's concerns about urban decay are unfounded and unwarranted.

The discussion below provides responses prepared by ALH Economics<sup>1</sup> regarding Dr. King's November 2, 2015 memo in bullet format. Unless otherwise stated, references hereafter to Dr. King's memo pertain to the November 2, 2015 memo (Comment O-MBA16S6-14).

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<sup>1</sup> Amy L. Herman, Principal, ALH Urban & Regional Economics, November 3, 2015. Letter to Paul Mitchell, ESA Community Development, regarding Response to Philip King, Ph.D. November 2, 2015 Memo Regarding Urban Decay Analysis of Proposed Movement of Golden State Warriors from Oakland to San Francisco.



- In several places Dr. King states that ALH Economics argued that another sports team would be attracted to the arena after the departure of the Golden State Warriors. Specifically, Dr. King states “ALH argues that another team will be attracted to the area and cites the City of Oakland’s Coliseum Redevelopment Area.”<sup>2</sup> This assertion is repeated in Dr. King’s overall conclusion, in which he states “Thus any conclusion that the Oracle Arena can find another sports team is speculation.”<sup>3</sup> Dr. King further states “On the issue of other sports teams entering the market, the evidence as it stands today indicates that it’s unlikely in the foreseeable future that another NBA team will locate to Oakland (and ALH provides no evidence that any team is interested.)”<sup>4</sup>

Dr. King’s statement that ALH economics argued that another sports team would be attracted to the Oracle Arena following the departure of the Golden State Warriors is not accurate. There is no mention in the letter report prepared by ALH Economics of the expectation that another sports team will locate at the Arena. Instead, the ALH Economics report includes considerable case study analysis of other indoor arenas in the United States that lost their sports teams and continued to operate in the absence of a sports affiliation. Thus, Dr. King’s criticism in his overall conclusion that the ALH Economics report provided no evidence that any NBA team is likely to locate in Oakland is irrelevant, as there was no such argument made by ALH Economics.

- Dr. King states that “ALH argues that I do not provide a definition of urban decay.”<sup>5</sup> ALH Economics did not argue that Dr. King did not provide a definition of urban decay. His lack of definition was provided as a statement of fact, and was not stated in an argumentative manner. Instead, ALH Economics provided a definition to set a context for the information and analysis presented by ALH Economics. Dr. King did not provide a similar context for his original memo, but subsequently agrees with the ALH Economics definition.
- Dr. King’s memo addresses at length the issue of relocated jobs, and claims that ALH Economics argues that “the move of the GSW from Oakland will not lead to a transfer of jobs.”<sup>6</sup> This is a false statement, as the ALH Economics analysis did not make this argument. The ALH Economics memo gave reasons why Dr. King likely overstated the job impacts of the Golden State Warriors relocation. Further, the ALH Economics letter report acknowledged there would likely be some economic shift pursuant to the relocation, e.g., the ALH Economics report stated that “ALH Economics recognizes there are some team expenses that are likely to be shifted geographically upon team relocation to the Event Center.”<sup>7</sup> This relocation of team expenses comprises some degree of economic shift, but ALH Economics did not attempt to quantify the associated jobs impacts. This is not the same as saying there would be no transfer of jobs.

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<sup>2</sup> Philip King, Ph.D., November 2, 2015, Memo to Patrick Soluri, Attorney at Law, “Re: Urban Decay Analysis of Proposed Movement of Golden State Warriors from Oakland to San Francisco,” (Comment O-MBA16S6-14), page 1. Please note subsequent page number references to this document refer to an excerpted copy of this memo, and that page numbers in the source document may be plus or minus one.

<sup>3</sup> Ibid, page 4.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid, page 1.

<sup>6</sup> Ibid, page 3.

<sup>7</sup> ALH Economics letter report to Mr. Paul Mitchell, September 30, 2015, “Re: Response to Philip King, Ph.D. Memo Regarding Proposed Relocation of Golden State Warriors from Oakland to San Francisco,” (RTC document Appendix UD), page 8.



- Dr. King seems confused about the ALH Economics discussion regarding the degree to which Golden State Warriors employees might or might not relocate pursuant to the team's relocation. ALH Economics presented this information pertinent to Dr. King's assumptions regarding the degree to which Golden State Warriors expenditures would shift from the East Bay to San Francisco. The ALH Economics point was that employees are unlikely to relocate their residence with a minor geographical relocation of the team, and thus the portion of Golden State Warriors expenditures spent on employee salaries would be unlikely to shift to San Francisco to the degree implicitly assumed by Dr. King. This ALH Economics discussion did not address the relocation of jobs, which appears to be Dr. King's interpretation,<sup>8</sup> but rather the distribution of Golden State Warriors expenditures. In contrast, as it pertains to jobs, ALH Economics is in agreement with Dr. King's statement that the employment numbers referenced by IMPLAN represent "the location of the jobs themselves and not the residence of the person who perform those jobs."<sup>9</sup>
- ALH Economics notes that in his current memo Dr. King provides information and clarification that would have benefitted his earlier analysis, although ALH Economics continues to disagree with his manner of implementing IMPLAN. This includes Dr. King's citation that his "employment numbers do not represent the number of people directly employed by the Warriors organization, but also include those employed by other companies (concession stands, parking attendants, etc.)." The traditional implementation of IMPLAN is for "direct" jobs to pertain to the economic stimulus under examination, as referenced in the September 30, 2015 ALH Economics letter report (see RTC document, Appendix UD). Interpretation of Dr. King's original analysis might have been better facilitated if it had been more explicit about his assumptions, including his current reference to IMPLAN jobs now being equivalent to 85 percent of a full-time equivalent job.<sup>10</sup> Omission of this equivalency earlier was misleading to the interpretation of his analysis. However, this could be complicated by questioning of the proper economic sector for implementation of the IMPLAN analysis. Since the Warriors do not own or operate the Oracle Arena, upon reconsideration ALH Economics believes some of the expenditures might have been more appropriately analyzed relative to at least one additional sector, pertaining to "promoters of performing arts and sports and agents for public figures," which is the IMPLAN sector that would mostly pertain to the concert promoter that currently manages the arena.
- Dr. King cites that his original analysis generously assumed that 74 percent of the Golden State Warriors annual spending was non-local, and claims that ALH Economics criticized the "arbitrary nature"<sup>11</sup> of this leakage estimate. This is another misstatement, in that ALH Economics did not use this phrasing when questioning Dr. King's assumption. Dr. King further implies that application of the Warrior spending figure in its entirety would have resulted in higher impacts, even with IMPLAN's internal adjustments accounting for sectoral spending patterns impacts.<sup>12</sup> There are many decision points involved in the preparation of an IMPLAN analysis. One of these is the geography of analysis. One could equally argue that if the full amount of Golden State Warriors expenditures were reflected in an IMPLAN analysis, then the geography of

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<sup>8</sup> King (Comment O-MBA16S6-14), pages 2 and 3.

<sup>9</sup> King (Comment O-MBA16S6-14), page 2.

<sup>10</sup> Ibid, page 3.

<sup>11</sup> Ibid.

<sup>12</sup> King (Comment O-MBA16S6-14), page 3.



analysis should be larger than just Alameda County, as current Golden State Warrior's spending most likely is more regional in nature, as assumed by Dr. King himself in his original analysis. However, expanding the analysis beyond Alameda County would be contradictory to Dr. King's argument regarding potential economic impacts of the Golden State Warriors relocation.

- Dr. King states that "ALH argues that the departure of the Golden State Warriors is not an issue since the City of Oakland's Coliseum Redevelopment Area will bring in other sports teams."<sup>13</sup> Further, Dr. King cites recent media articles regarding difficulties encountered by Oakland surrounding other prospective professional sports team relocations and efforts to attract a master developer to help implement the City of Oakland's recently adopted Coliseum Area Specific Plan. Thus Dr. King concludes that ALH Economics' responses to King's earlier analysis "fail to deal directly with my analysis" and that "any discussion of future teams occupying that space is speculative."<sup>14</sup>
- As stated earlier, ALH Economics does not make any assumption that other sports teams will be brought in to replace the Golden State Warriors. Further, the City of Oakland's Coliseum Area Specific Plan, which encompasses a portion of the former Coliseum Redevelopment Area (which, despite Dr. King's reference in the present tense, was disbanded concurrent with the dissolution of Redevelopment in California 2012), provides flexibility for potential land use outcomes, which do and do not accommodate sports facilities. ALH Economics recognizes that future planning for the Coliseum Area will be a long-term effort, with several possible configurations depending upon the future disposition of all the sports teams that currently hold home games in the Coliseum Area. This includes land use alternatives featuring no future sports teams. However, the City of Oakland is fortunate that a planning structure has been developed. The actual outcome for the area and implementation of the Specific Plan is speculative at present, with several possible outcomes. However, area assets for future development include highway visibility and accessibility as well as BART accessibility.

In summary, ALH Economics has determined that Dr. King's November 2, 2015 memo does not provide any new evidence or meaningful support for the claim that relocation of the Golden State Warriors to San Francisco will result in urban decay in Oakland. Dr. King's letter is premised on many inaccurate and misleading statements regarding the ALH Economics September 30, 2015 analysis, such as ALH Economics arguing that another sports team would be attracted to the Oracle Arena following the departure of the Golden State Warriors, that ALH Economics argues that the relocation of the Golden State Warriors to San Francisco will not lead to a transfer of jobs, and that ALH Economics misrepresents the IMPLAN findings as pertaining to where employees live versus where employees work. None of these are the case.

ALH Economics previous memo (See RTC document, Appendix UD) provides substantial evidence that the project will not result in significant urban decay impacts. Notably, ALH Economics provided examples of indoor arenas that continue to operate after the departure of their last professional sports team, acknowledged that some economic activity will be

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<sup>13</sup> Ibid, page 3.

<sup>14</sup> King (Comment O-MBA16S6-14), page 4.



transferred from Oakland to San Francisco with the Golden State Warriors' relocation, and explained that the residential location of employees pertains to Dr. King's assumptions regarding transfer of Golden State Warrior expenditures, and not job impacts. In conclusion, Dr. King's memos do not provide sufficient information or evidence to show that the project would be likely to result in significant urban decay impacts in Oakland. OCII's determination that significant urban decay impacts will not occur is supported by substantial evidence.

The comment also states that the EIR must be recirculated because new information regarding urban decay was included in the Final EIR. The comment is incorrect. As explained in CEQA Guidelines section 15088.5, recirculation of an EIR is required only when "significant new information" is added to the EIR after public notice is given of the availability of the Draft EIR for public review but prior to certification of the Final EIR. Examples of "significant new information" are provided in the CEQA Guidelines including a disclosure showing that: "A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented" or "[a] substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance." (CEQA Guidelines, § 15088.5, subd. (a)(1)(2).) As explained above, the analysis regarding the potential for urban decay does not reveal any new significant environmental impacts or a substantial increase in the severity of an environmental impact. Therefore, recirculation of the SEIR is not required.

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### Issues Raised by Late Commenters on Fair Trial

This response addresses all or part of the following comments, which are quoted below:

O-MBA17L5-1      O-MBA17L5-3      O-MBA21L8-1

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I write today regarding the discussion of secondary uses in Attachment C to the Memorandum to the CCII from Executive Director Tiffany Bohee for Items 5(a), 5(b), 5(c), 5(d) & 5(e) the November 3, 2015, CCII meeting agenda. The short time period between the October 29, 2015, publication of this memorandum and the November 3, 2015, OCII hearing to determine the "secondary use" question for the public to respond deprives my client of a fair trial under subdivision (b) of section 1094.5 of the Code of Civil Procedure. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA17S5-1]*)

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My client hereby requests, under the fair trial requirement of Code of Civil Procedure section 1094.5(b), the California Public Records Act, and the San Francisco Sunshine Ordinance, that OCII produce to my office, immediately and before the November 3, 2015, OCII hearing, a copy of any documents that memorialize any previous determinations by the OCII, the Redevelopment Agency, or the Executive Director on whether a proposed building in the Mission Bay South Redevelopment Plan area is allowable as a secondary use because it is either (1) a place for night time entertainment, (2) a recreation building, or (3) a public structure or use of a nonindustrial character; including any document memorializing the Executive Director's finding that the UCSF Medical Center



“constituted a secondary use as a public structure.” (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA17S5-3]*)

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The OCII's EIR preparation team includes 48 people, including 15 from several City departments and another 33 from six different consulting firms. (DSEIR, p. 9 - 1.) OCII's team spent 3 months preparing responses to comments and conducting new environmental analysis for changes to the Project, including a new Project Variant, ultimately publishing 2,624 pages of new analysis and data.

Yet the OCII gave the public only 11 days to review the FSEIR/RTC before meeting to certify it. Then, the October 23, 2015, notice of publication of the Response to Comments informed the public they would have no opportunity to comment on the FSEIR/RTC. But the OCII hearing agenda for November 3, 2015 published on October 29, 2015, reversed course and suggested that public comment on the FSEIR/RTC would be heard at the hearing.

As a result, the Mission Bay Alliance's legal team, with its consultants, has not had adequate time to review and comment on the FSEIR/RTC, depriving the Alliance of a fair trial on the Project approvals, including certification of the SEIR, per Code of Civil Procedure section 1094.5(b).

Moreover, the Mission Bay Alliance's legal team has submitted and will submit a large volume of new comments for consideration by the Commission. Since the members of the Commission cannot be expected to review this volume of new information before the close of today's hearing, the Alliance requests that Commission continue the hearing for at least three weeks to: (1) provide a fair trial on the Project approvals, (2) allow the Alliance to complete its review and comment on the FSEIR/RTC, and (3) allow the Commission to review the comments submitted for today's hearing. (*Mission Bay Alliance, Tom Lippe, email, November 3, 2015 [O-MBA21L8-1]*)

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## Response to Late Comment GEN-4: Fair Trial

### *Comment O-MBA17L5-1*

The commenter states that the time period between the publication on October 29, 2015 of a proposed secondary use determination regarding the event center (the “Secondary Use Determination”) and the November 3, 2015 OCII hearing to determine “the ‘secondary use’ question” was too brief and therefore deprived his client of a fair trial under California Code of Civil Procedure section 1094.5(b).

California Code of Civil Procedure section 1094.5 (“CCP § 1094.5”) governs administrative mandamus proceedings challenging an agency's adjudicatory decision. Importantly, CCP § 1094.5 applies only in limited circumstances, and cannot be invoked unless the agency decision is “made as the result of a proceeding in which by law a hearing is required to be given” and “evidence is required to be taken,” among other criterion.<sup>15</sup> An evidentiary hearing is required “by law” if a statute, ordinance, or regulation relating to the particular agency action or due process principles mandate a hearing under the particular circumstances.<sup>16</sup>

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<sup>15</sup> CCP § 1094.5(a); 300 DeHaro St. Investors v Department of Hous. & Community Dev. (2008) 161 CA4th 1240, 1250.

<sup>16</sup> *Pomona College v Superior Court* (1996) 45 CA4th 1716, 1727 (mandamus is available if hearing is required by statute, an organization's internal rules and regulations, or due process).



An evidentiary hearing was not required by law or the principles of due process in connection with the Secondary Use Determination. The Redevelopment Plan constitutes a delegation of state authority to OCII under the Community Redevelopment Law, Cal. Health & Safety Code §§ 33000 et seq., as amended by the Redevelopment Dissolution Law, Cal. Health & Safety Code §§ 34161 et seq., and establishes the basic land use controls within the Plan Area. Section 302 of the Redevelopment Plan sets forth the procedure by which secondary uses identified in the Redevelopment Plan for a particular land use district are permitted and states, in relevant part, that a secondary use shall be permitted provided that “such use generally conforms with redevelopment objectives and planning and design controls established pursuant to this Plan and is determined by the Executive Director to make a positive contribution to the character of the Plan Area based on a finding of consistency” with certain listed criteria. Notably, Section 302 does not require an evidentiary hearing regarding a secondary use determination. Although the proposed Secondary Use Determination was presented by the Executive Director to the CCII at its November 3, 2015 meeting as an informational item, this step was not required by statute, ordinance or regulation. Nor does the fact that this step was taken create a legal hearing requirement where none previously existed. Moreover, due process principles do not mandate that a hearing be held on the Secondary Use Determination because the commenter does not appear to have been deprived of a property or liberty interest.<sup>17</sup>

Because no evidentiary hearing was required, CCP § 1094.5 – including any right to a fair trial under subdivision (b) thereof – is inapplicable to the Executive Director’s issuance of the Secondary Use Determination. Accordingly, the commenter’s assertion that its client has been deprived of a fair trial under CCP § 1094.5(b) has no basis in law.

Moreover, even if CCP § 1094.5 did apply to the Secondary Use Determination, OCII complied with the requirements of the San Francisco Sunshine Ordinance and its own standard procedures by publishing the proposed Secondary Use Determination more than 72 hours prior to the date on which such proposed Secondary Use Determination would be presented to the CCII. Common sense suggests that following an agency’s standard and reasonable procedures with regard to public meetings does not violate any notion of a fair trial.

#### ***Comment O-MBA17L5-3***

In this comment dated November 2, 2015, the commenter requests that his client, the Mission Bay Alliance, receive materials from OCII relative to certain prior secondary use determinations made by OCII, the Redevelopment Agency or the Executive Director prior to commencement of the November 3, 2015 CCII hearing. The commenter states that this request is made pursuant to the fair trial requirement of California Code of Civil Procedure section 1094.5(b), the California Public Records Act and the San Francisco Sunshine Ordinance. On the same day, November 2, 2015, OCII responded to the request by providing to the commenter the following documents: the UCSF secondary use findings.

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<sup>17</sup> *Kash Enters. v City of Los Angeles* (1977) 19 C3d 294, 307



As of the date the comment was submitted to OCII, the commentator's client, the Mission Bay Alliance, was in possession of all documents satisfying the document request. Specifically, attached to a comment letter received by OCII from Susan Brandt-Hawley, counsel to the Mission Bay Alliance, on November 2, 2015 were a copy of the following documents: (i) a memorandum dated October 12, 2005 from Amy Neches, Senior Project Manager, to the Executive Director recommending that the Executive Director make a secondary use determination for a proposed UCSF hospital on Blocks 36-39 of the Mission Bay South Redevelopment Plan Area and setting forth the basis for such recommendation; and (ii) Resolution No. 176-2005 adopted by the Redevelopment Agency on November 1, 2005, acknowledging the Executive Director's determination that the such UCSF hospital would be a permitted a secondary use under the Redevelopment Plan. These documents constitute all documents in existence satisfying the records request contained in this comment.

As described above, CPP § 1094.5(b) is not applicable to and does not require that a "fair trial" be given in the context of the Secondary Use Determination. Nevertheless, the commenter's contention is moot in that the commenter's client was in actual possession of all of the requested documents at the time the comment was submitted. Further, OCII responded to the commenter's request on November 2, 2015, the same day the request was made and within the ten calendar day time period required under the California Public Records Act and within the seven calendar day time period required under the San Francisco Sunshine Ordinance.

***Comment O-MBA21L8-1***

The commenter states that it was deprived of a fair trial under CCP § 1094.5(b) because (i) the RTC document was published eleven days prior to OCII Commission's November 3, 2015 meeting to consider certification of the Final SEIR, (ii) OCII published conflicting information on October 23, 2015 and October 29, 2015 regarding the public's ability to provide comment on the FSEIR/RTC at the November 3, 2015 OCII Commission meeting, and (iii) the commenter and its client submitted a large volume of purportedly new comments for consideration prior to the conclusion of the November 3, 2015 OCII Commission meeting.

In asserting that the 11-day time period between the public issuance of the proposed Final SEIR and the November 3, 2015, OCII Commission hearing at which the document was certified was so short as to deny his client its purported right to a "fair trial" under Code of Civil Procedure section 1094.5, subdivision (b), the commenter is essentially invoking the broad generic concept of a "fair trial" in order to try to rewrite CEQA as enacted by the Legislature. Neither CEQA nor the CEQA Guidelines set any minimum time period by which members of the public may review a proposed Final EIR before a lead agency decisionmaking body can certify the document. Indeed, CEQA Guidelines section 15089, subdivision (b), provides that "Lead Agencies *may* provide an opportunity for review of the final EIR by the public or by commenting agencies before approving the project." As used in the CEQA Guidelines, the word "may" "identifies a permissive element which is left fully to



the discretion of the public agencies involved.” (CEQA Guidelines, § 15005, subd. (c).) Rather, the only statutory requirement relevant in this context is the requirement that lead agencies make their responses to timely *agency* comments at least 10 days prior to certification. (Pub. Resources Code, § 21092.5, subd. (a); CEQA Guidelines, § 15088, subd. (b).) OCII clearly satisfied this requirement by issuing the Final EIR, which included responses to all timely agency comments, 11 days prior to the OCII Commission hearing at which certification was to be considered. Members of the public, who also received 11 days to review the same document, were incidental beneficiaries of the manner in which OCII chose to comply with this requirement. The alternative permissible approach, by which OCII could have responded separately to agency comments in advance of publishing the proposed final EIR, would have left members of the public less time to review the document. If the commenter believes, as a matter of public policy, that the current statutory scheme provides too little time for commenters to review final EIRs before they are certified, the commenter should direct its concerns to the Legislature.

California Code of Civil Procedure section 1094.5 (“CCP § 1094.5”) governs administrative mandamus proceedings challenging an agency’s adjudicatory decision. Subdivision (b) of the statute simply states that a court’s inquiries in an administrative mandamus proceeding challenging an agency action subject to the statute shall include the question of “whether there was a fair trial.” Since nothing in CEQA requires any kind of “trial” in connection with the certification of a final EIR, this provision of section 1094.5 simply has no application here. To the extent that the commenter intends to argue that this brief reference to a “fair trial” in section 1094.5 impliedly requires a formal public review period for final EIRs beyond the 11 days provided here, such a contention runs aground on the language of Public Resources Code section 21083.1, which states that “[i]t is the intent of the Legislature that courts, consistent with generally accepted rules of statutory interpretation, shall not interpret [CEQA] or the state guidelines ... in a manner which imposes procedural or substantive requirements beyond those explicitly stated in [CEQA] or in the state guidelines.” (See also *Berkeley Hillside Preservation v. City of Berkeley* (2015) 60 Cal.4th 1086, 1107.) The commenter’s contention is also contrary to the accepted canon of statutory construction by which a specific statute addressing a particular matter takes precedence over a much more generalized statute that, absent the specific directive, could arguably apply to that same particular matter. (See, e.g., *In re Williamson* (1954) 43 Cal.2d 651, 654.) The CEQA requirement to provide 10 days of review time only for public agency comment responses is a very specific statute, whereas subdivision (b) of section 1094.5 is very general and thus cannot be understood as trumping the plain – and specific – language of CEQA.

More generally, what constitutes a fair trial varies with the circumstances.<sup>18</sup> Although due process principles determine whether the agency hearing was fair, “due process does not require any particular form of notice or method of procedure,” but rather only reasonable notice and a reasonable opportunity to be heard under applicable law.<sup>19</sup> Moreover, as the

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<sup>18</sup> *Morrissey v. Brewer*, 408 U.S. 471, 481 (1972). (“[D]ue process is flexible, and calls for such procedural protections as the particular situation demands.”)

<sup>19</sup> *Drumme v. State Bd. of Funeral Directors* (1939) 13 C2d 75, 80–81.



California courts have recognized, because CEQA “is a creature of the Legislature, exercising political rather than judicial or administrative power,” and because the preparation of an EIR “does not deprive the owners in the impacted areas or members of the public of property rights in the constitutional sense,” there are “no due process strictures on the mode, nature or type of notice that had to be given” before taking actions under CEQA.<sup>20</sup> Here, nevertheless, OCII complied fully with applicable law, including without limitation CEQA and the CEQA Guidelines, in publishing the RTC document, providing notice of the public hearing on the Final SEIR and RTC document and certifying the Final SEIR. Mission Bay Alliance was provided with notice of the publication of the RTC document and the agency hearing on consideration of the FSEIR. At the hearing, Mission Bay Alliance was provided an opportunity to be heard in full compliance with applicable law.

CEQA Guidelines Section 15088(a) requires that the lead agency only respond to comments made within the noticed comment period. The OCII Commission accepted written comments to the Final SEIR and RTC document prior to and through the conclusion of the OCII Commission hearing, and allowed all members of the public to speak and present evidence at the OCII Commission hearing.

Mission Bay Alliance took full advantage of these opportunities by presenting public comment at the November 3, 2015 hearing and by submitting more than 600 pages of written comments and supporting materials to OCII regarding the Final SEIR and RTC document prior to the certification action on that date. Having ignored OCII’s notice language informing participants not to raise new issues about the FSEIR during the OCII hearing, the commenter clearly suffered no prejudice from any arguable legal infirmity associated with such notice. OCII notes, however, that courts have recognized that agencies can set reasonable rules on the submission of information prior to EIR hearings in order to permit such hearings to proceed in an orderly fashion. (See *Mount Shasta Bioregional Ecology Center v. County of Siskiyou* (2012) 210 Cal.App.4th 184, 201-202 [court holds that respondent agency appropriately disregarded materials submitted after a locally set deadline requiring submissions at least five days in advance of administrative hearing on project and EIR]; see also *Citizens for Responsible and Equitable Environmental Development v. City of San Diego* (2011) 196 Cal.App.4th 515, 527-528 [court holds that petitioner did not effectively exhaust its administrative remedies with respect to issues buried deep within voluminous materials submitted to decisionmaking body at the time of the hearing on the merits of the project].)

Regardless of the timing of commenter’s voluminous last-minute submissions, OCII and City staff prepared written and oral responses prior to and during the November 3 hearing, concluding that, upon review, the comments did not contain significant new information within the meaning of CEQA, including CEQA Guidelines § 15088.5.

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<sup>20</sup> *Lee v. Lost Hills Water Dist.*, 78 Cal. App. 3d 630, 634 (1978).



### SECTION 3: RESPONSES TO LATE COMMENTS ON THE ENVIRONMENTAL REVIEW PROCESS

The comments and corresponding responses in this section cover topics generally discussed in SEIR Chapter 2, Introduction, regarding the CEQA process and its requirements, as augmented by RTC document Section 13.3. These include topics related to:

- Issue ERP-1: Adequacy of the SEIR and CEQA Process
- Issue ERP-2: Tiering
- Issue ERP-3: CEQA Findings
- Issue ERP-4: Public Comment
- Issue ERP-5: SEIR Certification
- Issue ERP-6: General Comments on Environmental Topics

#### Issues Raised by Late Commenters on Adequacy of the SEIR and CEQA Process

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-1	O-MBA22B4-1	O-MBA22B4-3	O-MBA25L10-1
O-MBA27S9-2	O-MBA28L11-1		

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**General Comment 1.** Many of the responses to comments reflect a basic misunderstanding of the relationship, under CEQA, between determination of significance, the feasibility and effectiveness of mitigation measures, and whether social or economic considerations outweigh environmental harm. For projects for which an EIR has been prepared, both the EIR and the mandatory findings required by CEQA section 21081, the analysis starts with whether an impact is significant. A finding of significance triggers the obligation to identify and adopt feasible mitigation measures that are effective in substantially reducing the significant impact. Once all feasible and effective mitigation measures have been identified and adopted, if the impact remains significant, the agency may approve the project if it finds that social or economic considerations outweigh environmental harm.

Each of these steps in the analysis is distinct. Here, many of the RTC's responses to comments conflate and confuse these steps, and thereby undermine the integrity of the analysis. One example discussed below is Response NOI-2a regarding construction noise thresholds. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-1]*)

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The Mission Bay Alliance is concerned about many ongoing defects in the CEQA process for the proposed Warriors Event Center. These include violations of CEQA's procedural mandates, material inadequacies of the Subsequent EIR, and OCII's unsupported substantive findings. In the minimal 11-day time frame allotted for public review of the new and voluminous OCII CEQA documents, including the Final SEIR, technical reports, and proposed findings, my co-counsel and I have done our best to bring these issues to the attention of the Commission on behalf of the Alliance. (*Mission Bay Alliance, Susan Brandt-Hawley, letter, November 3, 2015 [O-MBA22B4-1]*)

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#### 2. The Final SEIR Responses to Comments is Inadequate

Every lead agency is required to provide a "good faith, reasoned analysis" in responses to comments on the EIR; "[c]onclusory statements unsupported by factual information will not suffice."



(Guidelines, § 15088, subd.(b); see *Laurel Heights Improvement Association. v. Regents of the University of California* (1993) 6 Cal.4th 1112, p. 1124.) When a comment raises a significant environmental issue, the EIR must respond in detail, providing reasons why the comment was not accepted.

*Sutter Sensible Planning, Inc. v. Board of Supervisors* (1981) 122 Cal.App.3d 813 explains that detailed EIR responses “insure the integrity of the process of decision by precluding stubborn problems or serious criticism from being swept under the rug.” (Id., p. 820.) *Flanders Foundation v. City of Carmel-by-the Sea* (2012) 202 Cal.App.4th 603 ordered issuance of a writ when an EIR failed to respond to a comment proposing a reduced-size parcel for an environmentally damaging project. (Id., pp. 616-617.) (*Mission Bay Alliance, Susan Brandt-Hawley, letter, November 3, 2015 [O-MBA22B4-3]*)

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1. The Project SEIR does not comply with CEQA, as described in the Alliance’s many comments on the SEIR submitted to the Successor Agency. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 6, 2015 [O-MBA25L10-1]*)

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The Event Center Project SEIR does not comply with CEQA, as described in the Alliance’s many comments on the SEIR submitted to OCII. Over the last three months, the Alliance has reviewed and commented on material inadequacies in the expedited environmental review process. This Commission and the Board of Supervisors cannot fully consider and adequately mitigate the Event Center’s many significant impacts without the benefit of an EIR that complies with CEQA. (*Mission Bay Alliance, Soluri Meserve, letter, November 10, 2015 [O-MBA27S9-2]*)

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1. The Project SEIR does not comply with CEQA, as described in the Alliance's many comments on the SEIR submitted to the Successor Agency. Over the last three months, the Mission Bay Alliance has reviewed and commented on material inadequacies in the Project's expedited environmental review process. This Committee and the Board of Supervisors cannot fully consider and adequately mitigate the Project's many significant impacts without the benefit of an EIR that complies with CEQA. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 9, 2015 [O-MBA28L11-1]*)

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### Response to Late Comment ERP-1: Adequacy of the SEIR and CEQA Process

The commenter asserts in multiple letters that the SEIR does not comply with CEQA and that there are defects in the CEQA process for the proposed project. The commenter insinuates that there are violations of CEQA procedural mandates and material inadequacies of the SEIR, including the Responses to Comments (RTC) document. In one letter (O-MBA20L7-1), the commenter contends that the Responses to Comments “reflect a basic misunderstanding of the relationship, under CEQA, between determination of significance, the feasibility and effectiveness of mitigation measures, and whether social or economic considerations outweigh environmental harm.” OCII maintains that the SEIR and the associated environmental review process for the proposed project are in full compliance with CEQA (California Public Resources Code, Sections 21000 et seq.) and the CEQA Guidelines.



As described in the SEIR Chapter 2 as augmented by RTC Section 13.3, the SEIR and the CEQA process have been prepared and conducted scrupulously consistent with the requirements of CEQA. The contents of the SEIR, including the RTC document, are fully consistent with all provisions of CEQA Guidelines Sections 15120 to 15132. The Final SEIR provides detailed responses to every substantive issue and concern submitted by the commenter (as well as to those submitted by numerous other commenters). The RTC document also includes detailed supporting analysis in supplemental technical appendices. In some cases, the responses presented in the RTC document instigated revisions to the Draft SEIR resulting in improved clarity in the Final SEIR (see RTC document Chapter 14). However, in no cases did any of the revisions to the Draft SEIR result in substantial changes to the analysis or conclusions of the Draft SEIR. Therefore, the Final SEIR, which is comprised of the Draft SEIR (published on June 5, 2015), the RTC document (published on October 23, 2015), and the errata (submitted to the OCII Commission on November 3, 2015), was appropriately certified by the OCII Commission on November 3, 2015. Furthermore, the environmental review process for the proposed project has been conducted fully consistent with CEQA Guidelines Sections 15080 to 15097, including all aspects of public notification, public and agency consultation, and public review. Evidence of the completion of all procedural requirements are included as part of the project's administrative record, which is posted online and available for public review at the following website: <http://gsweventcenter.com/>. Because these specific comments by the appellant are generalized statements, with the exceptions noted below, no further response supporting the adequacy of the SEIR and CEQA process is necessary. Specific comments submitted by the commenter on individual issues supporting its assertions of the SEIR's inadequacy are responded to individually in this Exhibit D under the relevant topic code.

Comment O-MBA20L7-1 asserts that the RTC responses "conflate and confuse" the steps in the impact analysis. This is a misstatement. The RTC document contains responses to issues raised on the Draft SEIR and provides clarification and augmentation of the impact analyses where appropriate. Consistent with CEQA requirements and as described in SEIR Section 5.1.2, the overall process used and presented in the SEIR impact analysis consists of the following: description of proposed project; summary of relevant portions of 1998 Mission Bay FSEIR; identification of existing conditions (setting); identification of relevant laws and regulations; identification of significance threshold; description of approach to analysis and methodologies; and impact evaluation of both direct and cumulative impacts. For significant or potentially significant impacts, the impact discussion identifies feasible mitigation measures. There is no "conflation" or "confusion" in the analysis or documentation of the environmental impacts of the proposed project as presented in the SEIR.

As specified in CEQA Guidelines Section 15131, "economic and social effects of a project shall not be treated as significant effects on the environment..... The focus of the analysis shall be on the physical changes." This is the exact approach that was used in the SEIR. If the commenter has issue with OCII's approval of the project and the adoption of CEQA Findings, which may consider social and economic considerations, please see Response to Late Comment ERP-3, below, regarding CEQA Findings.



Comment O-MBA20L7-1 also cites RTC response NOI-2a as an example of the commenter's assertions. The specific response to those assertions are addressed under Response to Late Comment NOI-1.

Comment O-MBA22B4-3 asserts that the RTC is inadequate and references a number of cases. The adequacy of the RTC document is addressed above, and the commenter accurately cites cases relevant for general standards for responses to comments.

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## Issues Raised by Late Commenters on Tiering

This response addresses all or part of the following comments, which are quoted below:

O-MBA16S6-1

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### 1. Tiering

The FSEIR attempts to justify the City's decision not to provide any analysis of about half of the topics normally addressed in an EIR. The FSEIR initially reviews the conditions under which tiering under CEQA Guidelines section 15152 is permissible. Under section 15151, subdivision (g), impacts must "have been examined at a sufficient level of detail in the prior [EIR] to enable those effects to be mitigated or avoided . . . ."

The FSEIR also points out that the 1990 and 1998 EIRs were program EIRs under CEQA Guidelines section 15168, and that reliance on program EIRs is permissible in certain circumstances. Significantly, the FSEIR claims that the current project is within the scope of the Mission Bay Plan that was previously analyzed. Comments by the Alliance and others establish that the Notice of Preparation ("NOP")/Initial Study ("IS") inappropriately scoped out impacts for which there was inadequate analysis in the previous documents.

The FSEIR claims that the current project is consistent with the Mission Bay South Plan and/or within the scope of the program EIRs certified for the Mission Bay area. Yet comments from the public establish that, contrary to the City's assertions, the proposed arena and event center is inconsistent with the Mission Bay South Plan and inadequately analyzed in the prior EIRs. As such, this case is similar to *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1320-1321, where a proposed gravel operation was found not to be within the scope of the long-term plan, and that a tiered EIR was required.

The FSEIR also attempts to refute the applicability of the fair argument standard. This discussion overlooks the major differences between the project described in the 1998 FSEIR (evaluating effects of developing Mission Bay plan area as described in 1998) and the Warriors Event Center and Mixed Use Development now being proposed, make this a new project, precluding reliance on the 1990 and 1998 environmental analyses. (See *Sierra Club v. County of Sonoma*, *supra*, 6 Cal.App.4th at 1320-1321.) Under separate cover, the Alliance has submitted additional analysis explaining: (1) why the project is inconsistent with the Mission Bay South Plan and would require an amendment; and (2) alternatively, why a variance would be necessary to locate the project within the Mission Bay South Plan area.

The case of *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1113 did not address a situation such as this where tiering is attempted for a new project that is inconsistent with the previously analyzed project. Thus it cannot stand for the proposition that the



analysis in the NOP/IS of impacts that were not addressed would be subject to the substantial evidence standard. The simple inclusion of the NOP/IS in the DSEIR does not address this issue.

Even if the substantial evidence standard applies, public comments on the DSEIR demonstrate there are changes in circumstances since the 1998 SEIR involving, and significant new information showing, new significant effects not previously identified in the 1998 SEIR and substantial increases in the severity of significant effects that were previously identified in the 1998 SEIR. For example, biological resources exist on the site now that were not present in 1990 or 1998; thus, destruction of these resources creates a new, potentially significant impact. Similarly, contaminated soils are now present on the site due to backfilling that were not there previously. Construction and operation of the project would expose receptors to levels that exceed those levels that are considered safe. Similarly, seismic safety standards are completely different than in 1990 or 1998; moreover, the use proposed is a public assembly use, which was also not contemplated in 1990 or 1998.

Thus, the FSEIR improperly tiers from the 1990 and 1998 EIRs with respect to several resource areas, as described in Alliance and other public comments. This error defeats the public disclosure requirements of CEQA and misleads the public. In particular, if the 1990 and 1998 EIRs had actually analyzed the currently proposed project, there would be no need for the reams of new analysis presented by the City on these topics, none of which are within the four corners of the FSEIR. (*Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-1]*)

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## Response to Late Comment ERP-2: Tiering

This comment addresses the extent to which OCII relied on the 1990 and 1998 Program EIRs, and the application of tiering principles. Please refer to Response 13.3.8 in the Final SEIR, RTC document for a detailed discussion of tiering as relevant to the SEIR.

As a preliminary matter, the commenter errs from a factual standpoint in asserting that the Final SEIR does not “provide *any* analysis of about half of the topics normally addressed in an EIR.” (Emphasis added.) It is simply not true that the Final SEIR, or the Draft SEIR before it, completely ignored entire topics. Rather, the Final SEIR and Draft SEIR include analysis of each and every topic contemplated by CEQA, either in the text of the Draft SEIR or in the Appendix in Volume 3 that contains the Initial Study prepared for the project. Where the commenter suggests that no analysis of any kind was prepared, the commenter is simply ignoring the analysis found in the Initial Study, as though it does not exist. Not only does such analysis exist, often in very considerable detail, the analysis was included within the SEIR itself (in an appendix), and was circulated for public review and comment along with the analysis found in the text of the Draft SEIR and Final SEIR.

In short, the commenter attempts to elevate form over substance, and does not acknowledge the depth of analysis set forth in the Initial Study. (See *Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4th 1036, 1047-1048 [“courts strive to avoid attaching too much significance to titles in ascertaining whether a legally adequate EIR has been prepared for a particular project”; “[t]he level of specificity of an EIR is determined by the nature of the project and the ‘rule of reason’ ... rather than any semantic label accorded to the EIR”]; accord *City of Irvine v. County of Orange* (2015) 238 Cal.App.4th 526, 539-40.)



Importantly, the Initial Study is a very robust and detailed document, as is evident from even a quick review. By itself, the Initial Study includes 145 pages of background information, new analysis, and supporting documentation. For example, the discussion of Land Use issues consumes 10 pages of dense text, and addresses specific topics such as “Physical Division of an Established Community,” “Land Use Plan or Policies,” “Existing Character of the Vicinity,” and Cumulative Impacts. Similarly, the analysis of Biological Resources consumes nine pages of text, and addresses specific topics such as “Special Status Species,” “Sensitive Natural Communities,” “Wetlands,” “Wildlife” (including the subtopics “Breeding Birds” and “Avian Collisions with Buildings and Night Lighting”), “Biological Resources Policies or Ordinances,” and Cumulative Impacts. In turn, Appendix A to the Initial Study includes two Special Status Species Tables.

Notably, moreover, the analyses in the Initial Study and SEIR treat “existing conditions” as the starting point (the environmental baseline) for impact analysis, as would be required if the Draft SEIR and Final SEIR were prepared independently of the 1990 and 1998 Program EIRs (see SEIR Section 5.1.2). (See CEQA Guidelines, § 15125, subd. (a).) An example of this approach can be seen in the analysis of Biological Resources, and in particular on pages 79 through 81, which discuss Impact B1-2 (“The proposed project would not have a substantial adverse effect, either directly or through habitat modification, on any special status species”). That discussion recounts a recent “site reconnaissance” conducted on August 28, 2014, and describes site conditions as they existed on that date. Based on this very recent site visit, the authors found that the “lack of suitable habitat or supportive vegetation communities” made the site unsuitable for sustained use by any of the 75 special-status species that had been “determined to have a moderate or high potential to occur on the proposed project site.” Had this analysis been included in the text of the Draft SEIR, rather than in an appendix, the commenter presumably would have acknowledged its existence. The fact that the commenter asserts that the analysis simply does not exist is further evidence of an argument in which form is elevated far over substance.

After having erroneously asserted that the FSEIR lacks “any analysis of about half of the topics normally addressed in an EIR,” the commenter does acknowledge the existence of the Initial Study, but only long enough to state that the document “inappropriately scoped out impacts for which there was inadequate analysis in the previous documents” (i.e., the 1990 and 1998 EIRs). Again, the commenter wrongly treats the detailed analysis in the Initial Study as though it does not exist at all.

The CEQA Guidelines demonstrate that any EIR, whether tiered or not, may use an Initial Study to address impacts that are found not to be significant. Specifically, CEQA Guidelines section 15128 provides that “[a]n EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Such a statement may be contained in an attached copy of an Initial Study.” (See *Eureka Citizens for Responsible Government v. City of Eureka* (2007) 147 Cal.App.4th 357, 376 [upholding a city’s use of an initial study to determine a project’s aesthetic impacts would not be significant and use of the Final EIR to



respond to comments on alleged aesthetic impacts].) Therefore, a lead agency that prepares an EIR (as OCII did here) may elect to address significant effects determined not to be significant in an attached copy of an Initial Study. (CEQA Guidelines, § 15128.) Neither CEQA nor any published decision suggests that the editorial decision authorized in CEQA Guidelines section 15128 concerning where to address such impacts (i.e., in the body of the EIR or an attached Initial Study) affects the standard of review applicable to the analysis. The commenter's suggestion that these editorial decisions have such an impact is inconsistent with the general proposition that CEQA should not be interpreted to "elevate form over substance or to interpret CEQA in a manner that would lead to such absurd or oppressive burdens." (*North Coast Rivers Alliance v. Westlands Water Dist.* (2014) 227 Cal.App.4th 832, 877-878.)

On the specific subject of land use, the commenter also contends that the proposed project is not consistent with the Mission Bay South Redevelopment Plan and/or within the scope of the 1990 and 1998 certified Mission Bay EIRs. This assertion ignores the detailed discussion found on pages 27 through 28, and 30 through 32 of the Initial Study – again, as though it simply did not exist. For an additional detailed discussion of the consistency of the proposed project with the Mission Bay South Redevelopment Plan, please see also Response to Late Comment PP-1 in Section 6 of this Exhibit D, the testimony at the OCII Commission's hearing on November 3, 2015,<sup>21</sup> and the OCII Commission's findings on this issue.<sup>22</sup> OCII found that the proposed project is consistent with the Mission Bay South Redevelopment Plan. Please see OCII Executive Director, *Secondary Use Determination- Blocks 29-32, Mission Bay South* (November 3, 2015).<sup>23</sup>

The commenter states that, because the proposed project is not consistent with the Mission Bay South Redevelopment Plan, the current circumstances are analogous to those at issue in *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307. The premise of this comment is incorrect. OCII has determined that the proposed project is consistent with the Mission Bay South Redevelopment Plan, as discussed in numerous places within OCII's administrative record, as noted above.

In support of the commenter's contention that OCII wrongly "scoped out" certain issues from the Draft SEIR, the commenter draws an analogy between the circumstances at issue in *Sierra Club v. County of Sonoma* decision and the current circumstances. Although, as noted above, this issue is mainly one of form rather than substance, it is nevertheless appropriate to provide a brief summary of what occurred in that case, and to explain why the current circumstances differ.

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<sup>21</sup> City and County of San Francisco, Office of Community Investment & Infrastructure Commission, 2015. *Special Meeting. Reporter's Transcript of Proceedings Re the Golden State Warriors Event Center and Mixed-use Development at Mission Bay South Blocks 29-32*. Tuesday, November 3, 2015.

<sup>22</sup> Office of Community Investment and Infrastructure, 2015. *Secondary Use Determination*. Applicant: GSW Arena LLC. Site: Blocks 29-32, Mission Bay South Redevelopment Project Area. November 3, 2015.

<sup>23</sup> *Ibid.*



In *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, the respondent county certified a program EIR for a long-term plan to manage aggregate resources. The county later adopted a negative declaration, amended the plan, and approved a use permit so that a gravel operation could expand. The litigation focused not on the adequacy of the program EIR, but on whether the expanded gravel operation was within the scope of the long-term plan. Because the proposed gravel mine expansion was not within the geographic area covered by the long-term plan, the court held that the county had to analyze the proposed mine's impacts anew, and could not tier its analysis off the program EIR. (*Id.* at pp. 1320-1321.) For this reason, the "fair argument" standard applied to the challenge to the county's negative declaration. The record contained conflicting information on whether the expanded gravel operation would cause significant environmental impacts. The county therefore erred in relying on a negative declaration, and should have prepared an EIR. (*Id.* at pp. 1321-1323.)

*Sierra Club v. County of Sonoma* illustrates the review that must occur, and the standard of review that applies, when a developer proposes a project that is outside the geographic area of a resource management plan for which the agency certified a program EIR. Under those circumstances, the "fair argument" standard applies, and the agency cannot rely on a negative declaration where the record contains substantial evidence that the proposal may result in significant environmental effects.

By contrast, if an agency determines that a project is within the scope of a plan for which the agency certified a program EIR, then the "substantial evidence" test applies to the agency's review of the proposal, and to the agency's conclusions regarding whether the proposal's impacts have been adequately addressed in the program EIR. (CEQA Guidelines, § 15168, subd. (c); *Citizens for Responsible Equitable Environmental Development v. City of San Diego* (2005) 134 Cal.App.4th 598, 615; *Concerned Dublin Citizens v. City of Dublin* (2013) 214 Cal.App.4th 1301, 1316.) Subdivision (d)(3) of CEQA Guidelines section 15168 further states that "[a] program EIR can be used to simplify the task of preparing environmental documents on later parts of the program. The program EIR can ... [f]ocus an EIR on a subsequent project to permit discussion solely of new effects which had not been considered before." That is the approach taken here by OCII.

In this instance, *Sierra Club v. County of Sonoma* is distinguishable for two reasons. First, as noted above, OCII determined that the proposed project is consistent with the Mission Bay South Redevelopment Plan. The project is located within the Mission Bay South Redevelopment Plan Area and OCII has determined that the use is a permitted use under the Plan and otherwise complies with the Plan. The premise of the *Sierra Club v. County of Sonoma* analysis therefore does not exist in this case. Second, and importantly, OCII has not relied on a negative declaration. Instead, OCII prepared and certified an SEIR. For this reason, the "fair argument" standard of review does not apply; rather, the "substantial evidence" test applies. (See *North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors* (2013) 216 Cal.App.4th 614, 626-627 [noting distinction between "fair argument" standard of review applicable to negative declarations and "substantial evidence" standard of review applicable to EIRs]; see also *Protect the Historic Amador Waterways v. Amador Water*



*Agency* (2004) 116 Cal.App.4th 1099, 1113 [conclusion that a proposed project will not have significant effects will be upheld if supported by substantial evidence]; see also *Eureka Citizens for Responsible Government v. City of Eureka* (2007) 147 Cal.App.4th 357, 376.)

The commenter states there are “changed circumstances” since 1998 that require further analysis. The commenter cites three examples of new information that has become available. The new information cited by the commenter consists of the following:

- (1) Biological resources are present on the site that did not exist in 1998. OCII has investigated whether the project site contains significant biological resources that were not present in 1998 the presence of which would result in new significant impacts under CEQA. Based on this investigation, OCII has determined that the project will not have a significant impact on biological resources. The information provided by commenter and its consultants does not constitute new information that was not considered by OCII. For further information on this issue, please see RTC Section 13.19. In particular, with respect to the presence (or absence) of wetlands or sensitive habitat on the project site, please see RTC Sections 13.19.5 and 13.19.6. For additional information on biological resources, please see Response to Late Comment BIO-1 in Section 15 of this Exhibit D.
- (2) Contaminated soils are present on the site due to backfilling that occurred after 1998. This issue is discussed at length in RTC Section 13.22.4. The applicant has performed a Phase II investigation that characterizes the presence of any currently existing hazardous materials at the site, which would address any soils added to the site since 1998. Compliance with the Mission Bay Risk Management Plan and Article 22A of the San Francisco Health Code (Maher Ordinance), as well as San Francisco Health Code Article 22B (Construction Dust) will avoid potential impacts associated with the presence of hazardous materials at the site. In accordance with those existing requirements, the applicant has submitted a Site Mitigation Plan and a Dust Monitoring Plan to demonstrate how the site will be managed to avoid significant impacts associated with the presence of hazardous materials during project construction and operation. The City Health Department has reviewed and approved these plans as in compliance with Article 22A and Article 22B. For additional information, please see Response to Late Comment HAZ-1 in Section 18 of this Exhibit D.
- (3) Seismic safety standards have changed since 1998, particularly with respect to uses that involve public assemblies. This issue is discussed at length in RTC Section 13.20.2. This response identifies the seismic standards with which the event center and other building plans must comply. Compliance with these standards will be determined by the San Francisco Department of Building Inspection based on a site-specific geotechnical evaluation required by the latest California Building Code requirements. Compliance with these requirements will ensure that seismic hazards are addressed. For additional information on geologic hazards, including seismicity, please see Response to Late Comment GEO-2 in Section 16 of this Exhibit D.

The comment letter states that “major differences” between the project described in the 1998 Mission Bay FSEIR and the proposed project preclude reliance on the 1990 and 1998 Program EIRs. This statement does not accurately reflect the approach taken in the Initial Study/Notice of Preparation (IS/NOP). The purpose of the IS/NOP is to address each resource area (air quality, biological resources, etc.), and to determine whether there is



anything about the proposed project that would give rise to the potential for physical environmental effects that have not previously been adequately addressed. Thus, for example, the IS/NOP determined that the proposed project may result in traffic impacts that were not anticipated in the 1990 and 1998 Mission Bay EIRs. For this reason, the SEIR contains extensive analysis of traffic impacts. (See IS/NOP, p. 58.) In other resource areas, the impacts of the proposed project are comparable to those that would occur in the event the project site is developed for the typical commercial or industrial uses envisioned in the Mission Bay South Redevelopment Plan, such as office buildings. An example would be impacts with respect to the presence of hazardous materials; those impacts would occur for any project involving construction activities, and would occur regardless of whether an event center or an office building is constructed on the site. In those instances, the IS/NOP explains why those impacts would not result in any new significant impacts or increase the severity of previously identified impacts. (See IS/NOP, pp. 111-115.)

The commenter states that OCII has relied on extensive information that is not located in the Final SEIR. CEQA does not preclude an agency from considering information that is not within the EIR itself. Rather, an agency's conclusions are based on the entire record before the agency, including (but not limited to) the EIR. (Pub. Resources Code, § 21082.1, subd. (a).) In this case, the Final SEIR includes citations to other documents relied upon in the preparation of the analysis. Because the proposed project is subject to AB 900, the cited documents have also been posted to the web page maintained by OCII. Thus, the public has been provided access to both the Final SEIR and to the documents cited therein.

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### Issues Raised by Late Commenters on CEQA Findings

This response addresses all or part of the following comments, which are quoted below:

O-MBA22B4-9	O-MBA24L9-6	O-MBA24L9-7	O-MBA24L9-8
O-MBA27S9-3	O-MBA27S9-6	O-MBA28L11-2	

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### 3. The Proposed Findings on Alternatives are Inadequate

The SEIR does not analyze the alternate site proposed by the Alliance near Pier 80, nor circulate that analysis for public comment and so has no basis to make conclusory findings rejecting the alternative. The reasons provided in OCII's proposed findings are unsupported and inadequate. The site is three times as large as would be required for the Event Center project and need not utilize any of the City-owned property nor any particular configuration of the privately-owned lots should there be an unwilling seller. There is no evidence provided that the site could not be acquired within a reasonable time period.

Further, case law confirms that potential zoning adjustments are not grounds for infeasibility, as they are within the City's power. It is self-evident that the claimed limits to transportation services under current schedules are easily remedied, and the findings do not provide any studies to back up conclusory statements regarding traffic, air quality, hydrology, or water quality impacts. Again, since only a third of the site is needed to accommodate the event center, all of the impacts (if shown to have concern after sufficient technical review) can be avoided or mitigated. As stated above and in



the Alliance letter proposing this site for consideration as an alternative, the EIR is inadequate for failing to consider an off-site alternative and must be revised and recirculated to do so before any findings of infeasibility can be made. The site near Pier 80 is suggested by the Alliance as potentially feasible and deserving of study. (*Mission Bay Alliance, Susan Brandt-Hawley, letter, November 3, 2015 [O-MBA22B4-9]*)

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#### **4. CEQA Findings: General**

The Commission cannot make any CEQA findings required by CEQA section 21081 or CEQA Guidelines 15091, 15093, 15096(f), because the Project SEIR does not comply with CEQA and is not certifiable, for the reasons described in the Alliance's comments on the SEIR. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 5, 2015 [O-MBA24L9-6]*)

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#### **5. CEQA Findings: BAAQMD.**

The Commission cannot find that "Impact AQ-4: Potential conflicts with BAAQMD's 2010 Clean Air Plan" is less than significant with mitigation because the City and Project Sponsor refuse to agree to BAAQMD's offset fees per Mitigation Measure M-AQ-2b. (See Exhibits 4 and 5.) There is also no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible. There are too many unanswered questions regarding Option 2, including lack of assured verification of offsets to ensure their effectiveness, and lack of assurance that offset sources are available in the quantity required. BAAQMD's offset program at least answers some, if not all, of these questions.

The Commission cannot find that all feasible mitigation measures that would substantially reduce "Impact AQ-1: Impacts of Criteria Air Pollutants from Construction" have been adopted as required by CEQA section 21081, because there is no evidence that paying the offset fees demanded by BAAQMD is infeasible. Also, as discussed above, there is no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible; therefore, it is not an adequate substitute for BAAQMD's offset program. This also applies to

- Impact AQ-2: Impacts of Criteria Air Pollutants from Project Operations"; Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts;
- Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts.

(*Mission Bay Alliance, Thomas N. Lippe, letter, November 5, 2015 [O-MBA24L9-7]*)

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#### **6. CEQA Findings: Pier 80 Alternate Site.**

The Commission cannot find that feasible alternatives that would substantially reduce the Project's significant impacts have been adopted. The SEIR does not analyze the alternate site proposed by the Alliance near Pier 80, and did not circulate that analysis for public comment. Neither OCII nor this Commission has the basis to make conclusory findings rejecting the alternative. Among the relevant facts not considered in the findings is that the site is three times as large as would be required for the Event Center project and need not utilize any of the City-owned property nor any particular configuration of the privately-owned lots should there be an unwilling seller. There is no evidence provided that the site could not be acquired within a reasonable time period.

Case law confirms that assuring a site's consistency with city plans and zoning is within the City's power. Similarly, the scheduling of transportation services to the site can be increased, and the findings provide no studies to back up conclusory statements regarding traffic, air quality, hydrology, or water quality impacts. Since only a third of the site is needed to accommodate the event center, all of the impacts (if shown to have concern after sufficient technical review) can be avoided or



mitigated. As stated in the Alliance letter to OCII that proposes this site for consideration as an alternative, here incorporated by reference, the SEIR failed to consider a potentially-feasible off-site alternative and must be revised and recirculated to do so before findings of infeasibility may be considered or adopted. The site suggested by the Alliance is potentially feasible and deserving of study. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 5, 2015 [O-MBA24L9-8]*)

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The CEQA findings adopted by the San Francisco Municipal Transportation Agency ("MTA") and being considered by this Commission are premature and unsupported, as explained in the Alliance's comments on the Draft Subsequent Environmental Impact Report ("DSEIR"), as well as letters submitted following the Final SEIR by this office and by Alliance co-counsel Thomas Lippe and Susan Brandt-Hawley. (*Mission Bay Alliance, Soluri Meserve, letter, November 10, 2015 [O-MBA27S9-3]*)

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The Alliance requests that the Commission decline to make CEQA findings and decline to approve the Place of Entertainment Permit. (*Mission Bay Alliance, Soluri Meserve, letter, November 10, 2015 [O-MBA27S9-6]*)

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The CEQA findings adopted by the OCII and the SFMTA are, therefore, premature and unsupported, as explained in the Alliance's comments on the Draft Subsequent Environmental Impact Report ("DSEIR"), as well as letters submitted following the Final SEIR. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 9, 2015 [O-MBA28L11-2]*)

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### Response to Late Comment ERP-3: CEQA Findings

These comments all relate to the OCII Commission's action to adopt the CEQA Findings in connection with the proposed project (OCII Resolution 70-2015, November 3, 2015).

#### *Comment O-MBA22B4-9 and Comment O-MBA24L9-8*

The commenter states that the SEIR is inadequate because the SEIR does not analyze an alternative site near Pier 80 proposed by the Mission Bay Alliance (MBA). The commenter is incorrect. First, the MBA submitted its request to OCII regarding the site near Pier 80 long after the close of the scoping period (over 9 months later) and well after the close of the public comment period on the Draft SEIR (over 2 months later). A lead agency may, although is not obligated to, respond to untimely comments. (Pub. Resources Code, § 21091, subd. (d)(1); CEQA Guidelines, § 15088, subd. (a); *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1110; see also *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 234 Cal.App.4th 214, 257-258 ["an EIR need only 'identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination'"].) Similarly, CEQA does not require a lead agency to make findings concerning the rejection of alternatives proposed after the close of the public comment period. (*South County Citizens for Smart Growth v. County of Nevada* (2013) 221 Cal.App.4th 316, 332-335 (*South County Citizens*).) Second, "CEQA does not require that an agency consider specific alternatives that are proposed by members of the public or other outside agencies. Rather, the EIR need only



discuss ‘a range of reasonable alternatives.’” (*City of Maywood v. Los Angeles Unified School Dist.* (2012) 208 Cal.App.4th 362, 420-421.) Please also see Response to Late Comment ALT-1 in Section 19 of this Exhibit D for further discussion on the MBA-proposed site near Pier 80.

Nevertheless, OCII analyzed the MBA’s proposed alternative. A memorandum from OCII staff and the Planning Department evaluated the site and detailed why it was not a feasible alternative. (See Sally Oerth, OCII, and Chris Kern, SF Planning Department, Letter to Tiffany Bohee, Re: Proposed Alternative at Pier 80, October 27, 2015 [hereafter, “Staff Memo”].) This analysis and its conclusion were further reflected in OCII’s CEQA Findings. As the Staff Memo and CEQA Findings demonstrate, OCII relied on numerous reasons, each of which provide “sufficient independent grounds for rejecting this alternative location” as infeasible. (OCII CEQA Findings, p. 73, see also, Staff Memo.) The Staff Memo and OCII’s CEQA Findings also explain that the MBA-proposed site near Pier 80 is similar to the Pier 80 or India Basin alternative site location identified in the SEIR, and the MBA-proposed site is infeasible for many of the same reasons discussed in Draft SEIR for the Pier 80 or India Basin site alternative. (Staff Memo, pp. 5-6; OCII CEQA Findings, p. 71; Draft SEIR, p. 7-113; see *Town of Atherton v. California High-Speed Rail Authority* (2014) 228 Cal.App.4th 314, 323 [rejecting the need for a lead agency to analyze an alternative that was “substantially similar to those already studied”]; see also *North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors* (2013) 216 Cal.App.4th 614, 655-656 [rejecting the need to recirculate an EIR to address an alternative that was neither considerably different from alternatives analyzed in the Draft EIR nor feasible]; *South County Citizens, supra*, 221 Cal.App.4th at pp. 328-332; *Beverly Hills Unified School Dist. v. Los Angeles County Metropolitan Transportation Auth.* (2015) – Cal.App.4th – [slip op. pp. 44-48].) OCII’s infeasibility findings are entitled to great deference and are presumed correct. (*Town of Atherton, supra*, 228 Cal.App.4th at p. 358.)

In a brief two-paragraph argument, the commenter challenges a few of the reasons addressed in OCII’s CEQA Findings.

First, the commenter states there is no evidence that the site, or a sufficient portion of it, could not be acquired within a reasonable period of time. OCII disagrees. As explained in the Staff Memo and OCII’s CEQA Findings, the MBA-proposed site near Pier 80 is made up of approximately 12 separate lots owned by multiple public and private entities. In total, the site is approximately 21 acres. Acquiring a sufficient number of acres of the site to develop the proposed project (~10 acres) would require obtaining control of numerous lots owned by multiple entities that are each actively used by public facilities or existing businesses. The publicly owned lots are occupied by ongoing and expanding operations by SFMTA. SFMTA has been in the process of planning for, and incrementally acquiring these properties for its Islais Creek facility, since 1990. The \$129 million project is being constructed in two phases: Phase I, which was completed in 2013, consisted of site preparation and construction of a new fuel and wash building, as well as bus parking facilities; Phase II, which recently broke ground at the southeast corner of the site, will include a maintenance and operations building with vehicle hoists to service buses, a brake shop, parts storeroom, administrative offices, and a community meeting space. Once complete, the Islais Creek facility will be



among SFMTA's largest facilities, capable of storing and servicing at least 165 buses and facilitating 300 employees, with 24/7 operations. Because the Islais Creek facility will replace older, outdated, or temporary SFMTA facilities, and will accommodate such a significant portion of SFMTA's fleet, these properties are considered "critical" to SFMTA's mission. The Port-owned property (1399 Marin Street, at the southeast corner of Marin and Indiana Streets) is too small to accommodate even just the Event Center portion of the proposed project. Therefore, OCII found that it would be infeasible to use these public lots to develop the proposed project.

The project sponsor does not currently own or control any of the private lots, which are owned by multiple property owners and are not listed for sale. These privately owned properties, which collectively account for a little more than 7 total acres arranged in a "L" shape, are also too small and disjointed to accommodate the proposed project. Thus, OCII found the MBA-proposed site properties could not be assembled in a successful manner by the project sponsor within a reasonable period of time taking into account existing development on the site as well as economic, legal, and environmental factors. (See CEQA Guidelines, § 15126.6, subd. (f)(1) [stating that, in considering the feasibility of alternatives, a lead agency may consider "whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)"].)

Second, the commenter suggests that it was improper for OCII to consider consistency with city plans and zoning in findings the alternative to be infeasible. CEQA permits a lead agency to take such factors into consideration. "[A]n EIR is not ordinarily an occasion for the reconsideration or overhaul of fundamental land-use policy." (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 573.) Therefore, a lead agency "may properly consider an inconsistent land-use designation in the general plan ... in assessing the feasibility of a project alternative." (*Ibid.*; see also CEQA Guidelines, § 15126.6, subd. (f)(1) [stating that, in considering the feasibility of alternatives, a lead agency may take "general plan consistency, other plans or regulatory limitations, [and] jurisdictional boundaries" into consideration].)

Third, the commenter states OCII's conclusions regarding the potentially significant environmental impacts associated with developing the proposed project on the MBA-proposed alternative site are not supported by substantial evidence. As already noted, the Draft SEIR considered an alternative site in the Pier 80 or India Basin Area. (Draft SEIR, p. 7-113.) This alternative site was rejected, in part, because Pier 80 is less well served by Muni and therefore transportation and associated air quality and noise impacts would likely be the same or potentially more severe than those under the proposed project. As discussed in the Staff Memo and CEQA Findings, this substantial evidence also supports rejection of the MBA-proposed site, which is located across Third Street from Pier 80. Further, OCII consulted with its environmental consultants in evaluating potential environmental impacts of the alternative site. Based on its consultants' expertise, OCII determined that the MBA-proposed site near Pier 80 would likely result in increased transportation, air quality, and hydrology and water quality impacts compared to the proposed project. These additional



environmental impacts result, in part, from the site's location, which offers more limited transit and bicycle access than the project site, is included in an Air Pollution Exposure Zone (unlike the project site), and is directly adjacent to Islais Creek Channel thereby increasing the potential to result in adverse impacts on water quality and aquatic resources.

For these and the other independent reasons identified in the Staff Memo and OCII's CEQA Findings, OCII properly determined that the MBA-proposed site near Pier 80 is infeasible. As the MBA's late-submitted additional alternative is infeasible, CEQA would not have required the alternative to be included in the SEIR even if it were timely submitted during the public comment period. (*City of Maywood, supra*, 208 Cal.App.4th at p. 413 ["An EIR is not required to consider alternatives which are infeasible"], quoting CEQA Guidelines, § 15126.6, subd. (a).)

***Comments O-MBA24L9-6, O-MBA27S9-3, O-MBA27S9-6, and O-MBA28L11-2***

The commenter asserts that City's Responsible Agency CEQA findings fail to comply with CEQA because the project's SEIR does not comply with CEQA. All comments raised by this commenter and others on behalf of the MBA have been responded to as part of the administrative process associated with OCII's approval of the project, actions taken by the City as a responsible agency, and in response to the appeal of OCII's certification of the SEIR authorized by OCII to be filed with the Board of Supervisors. An assertion that CEQA findings are flawed because the SEIR is flawed constitutes a challenge to the adequacy of the SEIR rather than any specific alleged challenge to the findings and, as such, "has no independent merit." (*Habitat & Watershed Caretakers v. City of Santa Cruz* (2013) 213 Cal.App.4th 1277, 1307.)

More importantly, a responsible agency has no obligation to consider the adequacy of an EIR that has already been certified by a lead agency, but rather is expected to accept the document as legally adequate unless the document requires supplementation due to the occurrence of recognized grounds triggering supplemental review. (See CEQA Guidelines, § 15096, subds. (a), (e)(2), (f); and *City of Redding v. Shasta County Local Agency Formation Commission* (1989) 209 Cal.App.3d 1169, 1178-1181.) The only exception is where the responsible agency itself chooses to sue the lead agency over EIR certification within the applicable 30-day statute of limitations. (CEQA Guidelines, § 15096, subd. (e)(1).) Furthermore, no responsible agency, including the City, has objected either to OCII's certification of the Final SEIR or its actions approving the project, and no responsible agency has filed an appeal of OCII's action certifying the Final SEIR. The commenter is directed to the responses to substantive comments on adequacy of the SEIR. No further response is required to this comment.

***Comment O-MBA24L9-7***

The commenter states that the OCII cannot make CEQA findings because Impact AQ-4 is identified as less than significant with mitigation, based in part on implementation of Mitigation Measure M-AQ-2b, which the commenter asserts is inadequate. The commenter states that Mitigation Measure M-AQ-2b is inadequate because OCII, the City, and the



project sponsor refused to agree to BAAQMD's proposed offset fee. Mitigation Measure M-AQ-2b also provides another option under which the project sponsor may implement offset project(s) as an alternative to paying BAAQMD an offset fee. The commenter asserts without any supporting evidence that this second option is infeasible. OCII disagrees, and maintains that Mitigation Measure M-AQ-2b is feasible for the reasons described below (see also Response to Late Comment AQ-1 in Section 10 of this Exhibit D).

The comment is incorrect that the project sponsor and City have refused to pay the BAAQMD offset fee. The record establishes that OCII, the City, the project proponent, and the BAAQMD are involved in ongoing discussions regarding the fee amount necessary to offset ozone precursor emissions. The fee amount originally suggested in the SEIR was established in considerations of California Air Resources Board records for emission reduction offset transaction costs and Carl Moyer Memorial Air Quality Standards Attainment Program ("Carl Moyer Program") cost effectiveness standards. Specifically, the median (average) offset transaction cost per ton of hydrocarbon (analogous to ROG) and NOx in the Bay Area in 2014 was approximately \$7,000 and \$14,500 respectively. The cost effectiveness standard for the statewide Carl Moyer Program is \$18,030. OCII and the City believe this data constitutes substantial evidence supporting the amount reasonably necessary to offset a ton of emissions. The SEIR utilized the higher Carl Moyer Program cost effectiveness standard amount (\$18,030 per ton) as the amount anticipated to offset the project's ozone precursor emissions. This approach was conservative, in that it represents the highest figure based on available data regarding the cost of providing such offsets.

The BAAQMD does not have an ozone precursor offset purchasing program for development projects. However, BAAQMD has suggested that for it to implement a program, the cost to offset project emissions will exceed the amount determined to be cost effective under the Carl Moyer Program. In response to BAAQMD's November 2, 2015, comment letter, staff recommended, and the OCII Commission approved, an amendment to Mitigation Measure M-AQ-2b. As revised, Mitigation Measure M-AQ-2b provides:

Upon completion of construction, and prior to issuance of certificate of occupancy, the project sponsor, with the oversight of OCII or its designated representative, shall either:

- 1) Pay a mitigation offset fee to the Bay Area Air Quality Management District's (BAAQMD) Strategic Incentives Division in ***an amount no less than*** \$18,030 per weighted ton of ozone precursors per year requiring emissions offsets plus a 5 percent administrative fee to fund one or more emissions reduction projects within the San Francisco Bay Area Air Basin (SFBAAB). This fee is intended to fund emissions reduction projects to achieve reductions of 17 tons of ozone precursors per year, the estimated tonnage of operational and construction-related emissions offsets required. Documentation of payment shall be provided to OCII or its designated representative.

The project sponsor shall provide calculations to the satisfaction of OCII or its designated representative of the final amount of emissions from construction



activities based on the reporting requirements of Mitigation Measure M-AQ-1, which shall consider the final destination of off-hauled soil and construction waste materials by on-road trucks, contributions from Electrical Power Distribution System Expansion, and the degree of compliance with off-road equipment engine types that were commercially available. If the calculated construction emissions of ozone precursors require offsets in excess of 17 tons per year, then the applicant shall provide the additional offset amount commensurate with the calculated ozone precursor emissions exceeding 17 tons per year.

Acceptance of this fee by the BAAQMD shall serve as an acknowledgment and commitment by the BAAQMD to: (1) implement an emissions reduction project(s) within one year of receipt of the mitigation fee to achieve the emission reduction objectives specified above; and (2) provide documentation to OCII or its designated representative and to the project sponsor describing the project(s) funded by the mitigation fee, including the amount of emissions of ROG and NO<sub>x</sub> reduced (tons per year) within the SFBAAB from the emissions reduction project(s). If there is any remaining unspent portion of the mitigation offset fee following implementation of the emission reduction project(s), the project sponsor shall be entitled to a refund in that amount from the BAAQMD. To qualify under this mitigation measure, the specific emissions retrofit project must result in emission reductions within the SFBAAB that would not otherwise be achieved through compliance with existing regulatory requirements; or

- 2) Directly implement a specific offset project to achieve reductions of 17 tons per year of ozone precursors (or greater as described in item 1 above). To qualify under this mitigation measure, the specific emissions retrofit project must result in emission reductions within the SFBAAB that would not otherwise be achieved through compliance with existing regulatory requirements. Prior to implementation of the offset project, the project sponsor must obtain OCII's approval of the proposed offset project by providing documentation of the estimated amount of emissions of ROG and NO<sub>x</sub> to be reduced (tons per year) within the SFBAAB from the emissions reduction project(s). The project sponsor shall notify OCII within six months of completion of the offset project for OCII verification.

(Emphasis Added.)

The revision to Mitigation Measure M-AQ-2b clarifies that the amount of the BAAQMD offset fee is not capped. The fee required under Option 1 will be the fee determined by BAAQMD if and when the project proponent seeks to pay the fee under this first option. While the precise fee is not set by Mitigation Measure M-AQ-2b, the measure requires the fee to be no less than \$18,030 per weighted ton of ozone precursors and an amount sufficient "to fund emission reduction projects to achieve reductions of 17 tons of ozone precursors per year." Pursuant to Mitigation Measure M-AQ-2b, the fee is not due until after completion of construction and after total construction emission have been calculated to confirm the emissions do not exceed 17 tons. Given that construction is anticipated to take approximately 26 months (Draft SEIR, p. 3-46), it is appropriate for the precise fee per ton to be calculated by BAAQMD in the future. While the final amount of the fee will be determined in the future, substantial evidence demonstrates that emissions can be offset



through implementation of an appropriate fee amount established by BAAQMD. The comments by both BAAQMD and this commenter support this conclusion. For example, BAAQMD's November 2, 2015 letter, page 1, states that 17 tons of precursor emissions (i.e., 4.4 tons for ROG and 12.6 tons of NOx) can be offset through the payment of \$620,922. Similarly, the Comment O-MBA24L9-7 states BAAQMD offset mitigation is feasible mitigation. In the event this option is implemented, based on current information in the SEIR and from the BAAQMD, the fee paid to BAAQMD will be in the range of \$321,835 to \$620,922. (Both figures include an administrative fee of 5 percent; the sole difference in the totals is the cost per ton.) This option requires BAAQMD agreement on the amount of the offset fee.

As an alternative to paying BAAQMD offset fee, Mitigation Measure M-AQ-2b authorizes the project proponent to "[d]irectly implement a specific offset project to achieve reductions of 17 tons per year of ozone precursors..." There is nothing novel about air quality offsets, which are commonly purchased throughout areas of California in which existing ambient air quality is polluted enough to require new development projects to seek ways to mitigate expected increases in air pollution. Notably, successful air quality offset projects have previously been implemented within the City. For example, the 34th America's Cup and James R. Herman Cruise Terminal and Northeast Wharf Plaza Project EIR required construction of a long-term shoreside power facility to be developed at the Port's dry dock facility at Pier 70 to offset the project's emissions.<sup>24</sup> This facility provides electrical grid power for ships brought in for unscheduled maintenance, eliminating the need for auxiliary loads to be supplied by on-board diesel generators, which emit much greater amounts of air pollutants. Estimated reductions for year 2013 were 11 tons of reactive organic gases (ROG), 215 tons of nitrogen oxides (NOx), and 6 tons per year of particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). The shoreside power facility offset project has since been successfully implemented, and continues to provide emissions reductions. Notably, the State of California has recently formulated an approach to offsets similar to the one proposed for this project, by which the project sponsor could either purchase offsets through an existing air district program or, as an alternative, could purchase its own offsets through an open-market transaction.<sup>25</sup> Therefore, abundant substantial evidence supports the conclusion that offset projects can be successfully implemented to offset emissions. Furthermore, should the project sponsor desire to comply with Mitigation Measure M-AQ-2b by implementing a specific offset project under option two, the project must first be approved by OCII in order to verify the amount of the offset that will be achieved by implementing the offset project.

Under either option included in Mitigation Measure M-AQ-2b, the project sponsor must achieve reductions of no less than 17 tons of ozone precursors per year, the estimated tonnage of operational and construction-related emissions offsets required for the project.

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<sup>24</sup> San Francisco Planning Department, 2011. *Final EIR on the 34th America's Cup & James R. Herman Cruise Terminal and Northeast Wharf Plaza*. Case No. 2010.0493E. State Clearinghouse No. 2011022040. Certified on December 15, 2011. See Vol. 6, Section 12.13, page 12.13-37.

<sup>25</sup> Department of Water Resources, December 2013, *Draft EIR/EIS for Bay Delta Conservation Plan*, pp. 22-52 – 22-56. State Clearinghouse No. 2008032062.



The mitigation measure further provides that the measure must be implemented after “completion of construction” and “prior to issuance of the certificate of occupancy.” Therefore, certificates of occupancy will not be issued until the project proponent has paid BAAQMD’s offset fee or directly implemented an offset project(s) approved by OCII to offset no less than 17 tons of ozone precursors per year. While it is anticipated that direct offset projects will be available to achieve this offset, if such offset projects are not available, then the project proponent would need to pay the offset fee required by BAAQMD in order to obtain certificates of occupancy. Therefore, the mitigation measure is enforceable and ensures project operations will not commence until project emissions have been offset.

In sum, based on the above, OCII believes Mitigation Measure M-AQ-2b is feasible and would reduce identified construction and operational air quality impacts described in SEIR Impacts AQ-1, AQ-2, and C-AQ-1.

The commenter asserts that Impact AQ-4 cannot be considered less than significant with mitigation because of the commenter's misinterpretation of the City and project sponsor's discussions with the BAAQMD regarding option 1 of Mitigation Measure M-AQ-2b and his assumption that option 2 of Mitigation Measure M-AQ-2b is infeasible. As described above, OCII, the City, the project sponsor, and the BAAQMD are involved in ongoing discussions regarding the fee amount necessary to offset ozone precursor emissions. The fee required under option 1 will be the fee determined by BAAQMD if and when the project sponsor seeks to pay the fee under this first option. Also, as described above, option 2 is clearly feasible, even though no specific offset emissions has been identified yet. Impact AQ-4 relates to the potential for the proposed project to conflict with, or obstruct implementation of, the *2010 Clean Air Plan*. The Final SEIR determined that this impact would be less than significant with mitigation because the project (1) includes mitigation measures that promote attainment of air quality standards and protection of public health in the Bay Area, and design measures to minimize greenhouse gases emissions; (2) includes applicable control measures from the air quality plan, including transportation control measures and energy and climate control measures; and (3) would not disrupt or hinder implementation of control measures identified in the Clean Air Plan. The proposed project includes feasible mitigation measures that would contribute towards achieving these goals, including Mitigation Measures M-AQ-1 (Construction Emissions Minimization), M-AQ-2a (Reduce Operational Emissions), and M-AQ-2b (Emissions Offsets). Therefore, this impact is appropriately determined to be less than significant with mitigation.

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#### Issues Raised by Late Commenters on Public Comment

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-2      PH2-Lippe-3

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General Comment 2. The October 23, 2015, notice of publication of the Response to Comments informed the public they would have no further opportunity to comment on the FSEIR/RTC. But the OCII hearing agenda for November 3, 2015 published on October 29, 2015, suggests that public comment on the FSEIR/RTC will be heard at the hearing. The October 23, 2015, notice of publication is inconsistent with CEQA section 21177(a), which contemplates public comment on EIRs up to the end of the hearing at which the project is approved. Therefore, the October 23, 2015, notice of publication has frustrated the ability of the public to comment. The OCII should remedy this misstep by continuing its November 3, 2015, hearing on this Project and re-noticing the hearing with full disclosure that the public may comment on the FSEIR/RTC. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-2]*)

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And just on that point, we only had 11 days after your staff of 58 people had two months. (*Thomas N. Lippe, Transcript, November 3, 2015 [PH2-Lippe-3]*)

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#### Response to Late Comment ERP-4: Public Comment

The commenter expresses confusion over the process for public comment on the Final SEIR and the RTC document. As stated in the OCII notice of publication of the RTC document, CEQA does not require a hearing to receive comments on the RTC document, and OCII Commission elected not to conduct a public hearing expressly for the purpose of receiving comments on the RTC document. However, as a matter of course, the OCII Commission meetings are open to the public, and at these meetings, the public is afforded the opportunity to make pertinent comments on any of the agenda items for that particular meeting. Therefore, as part of the November 3, 2015 OCII Commission meeting, there was an opportunity for public comment on any of the agenda items, including certification of the Final SEIR. OCII has thus fulfilled its obligation to provide an opportunity for public comment, and re-noticing of the hearing is not warranted. See also the earlier response to Comment O-MBA21L8-1.

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#### Issues Raised by Late Commenters on SEIR Certification

This response addresses all or part of the following comments, which are quoted below:

O-MBA22B4-2

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##### 1. The Final SEIR Must Be Certified by the Planning Commission

Approval of a CEQA document must comply with local ordinances as well as with California environmental law. (E.g., *Citizens for the Restoration of L Street v. City of Fresno* (2014) 229 Cal.App.4th 340.) While OCII is a separate legal entity with discrete responsibilities under redevelopment law, it is under the legislative control of the Board of Supervisors per state statutes and local ordinances. For CEQA purposes, OCII's duties align with those of the City of San Francisco. The Planning Department was thus identified as a co-lead agency in the CEQA process for the 1998 Mission Bay South Redevelopment Plan.



CEQA is a process-driven statute that must be followed to the letter. The Event Center's Subsequent EIR reflects its preparation by the City Planning Department and the City will consider many of the Event Center's required approvals. If the current SEIR is certified, the Board of Supervisors will decide administrative appeals of its inadequacy as the elected decision-making body. The Planning Code requires initial consideration of the certification of the Final SEIR to be conducted by the San Francisco Planning Commission, and that must happen before its consideration by OCII. The current process violates CEQA. (*Mission Bay Alliance, Susan Brandt-Hawley, letter, November 3, 2015 [O-MBA22B4-2]*)

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### Response to Late Comment ERP-5: SEIR Certification

The commenter asserts that the San Francisco Planning Commission must review the Final SEIR. The commenter is mistaken. As acknowledged by the commenter, "OCII is a separate legal entity with discrete responsibilities under the redevelopment law." (Brandt-Hawley Comment Letter, p. 1. But commenter is incorrect that "For CEQA purposes, OCII's duties align with those of the City of San Francisco." Under Health & Safety Code, § 34173, subd. (g), "[a] successor agency is a separate public entity from the public agency that provides for its governance and *the two entities shall not merge.*" (Emphasis added.) As a separate legal entity from the City and County of San Francisco, OCII properly prepared, reviewed, and certified the Final SEIR for the GSW Event Center Project, a project in a redevelopment plan area for which the California Department of Finance ("DOF") has finally and conclusively determined completion of the Mission Bay South Owner Participation Agreement to be an enforceable obligation pursuant to the Redevelopment Dissolution Law. (See Letter, J. Howard, DOF, to T. Bohee, OCII, Re: Request for Final and Conclusive Determination (Jan. 24, 2014), available at [http://www.dof.ca.gov/redevelopment/final\\_and\\_conclusive/Final\\_and\\_Conclusive\\_Letters/documents/San\\_Francisco\\_F&C\\_EO\\_Items\\_84-88\\_220\\_&\\_226.pdf](http://www.dof.ca.gov/redevelopment/final_and_conclusive/Final_and_Conclusive_Letters/documents/San_Francisco_F&C_EO_Items_84-88_220_&_226.pdf).)

The commenter points out that the 1998 Redevelopment Plan for the Mission Bay South Redevelopment Project ("Plan") was jointly certified by the Planning Commission and the San Francisco Redevelopment Agency. But, under California Redevelopment Law, the Board of Supervisors had to approve the establishment of a redevelopment area and new redevelopment plan. (See Health & Safety Code, §§ 33007, 33346, 33351.) Once the ordinance approving the Plan was adopted and filed, the Redevelopment Agency was "vested with the responsibility for carrying out the plan." (Health & Safety Code, § 33372; see also SF Ordinance No. 335-98, § 6 (Nov. 2, 1998) (stating that "the Redevelopment Agency shall be vested with the responsibility for carrying out the [Mission Bay South] Redevelopment Plan").) Under the California Environmental Quality Act ("CEQA"), this statutory authorization to carry out the Plan established the Redevelopment Agency as the lead agency for purposes of implementation. (CEQA Guidelines, § 15051, subd. (a).)

Under Redevelopment Dissolution Law, Health & Safety Code § 34170 et seq., successor agencies "succeed[ed] to the organizational status of the former redevelopment agency" to complete approved enforceable obligations. (Health & Safety Code, § 34173, subd. (g).) Although the dissolution of redevelopment agencies precludes the establishment of new redevelopment areas, the Redevelopment Dissolution Law provides successor agencies with



the state authority to implement redevelopment plans for the purpose of completing those projects that survived the dissolution process. The Board of Supervisors, acting as the governing body of the separate legal entity that is the successor agency to the former San Francisco redevelopment agency, has delegated to the OCII Commission authority to “approve all contracts and actions related to the assets transferred to or retained by the Successor Agency, including without limitation, the authority to exercise land use, development and design approval authority for [Mission Bay].” (SF Ordinance No. 215-12, Section 6.)

The approval actions necessary for the GSW Event Center Project (“Project”) to proceed - approval of amendments to the Mission Bay South Design for Development, approval of the major phase and basic concept schematic design applications, and approval of secondary use findings by the Executive Director - are all actions related to “land use, development and design approval.” In this capacity, OCII is properly acting as the lead agency under CEQA because it is “the public agency which has the principal responsibility for carrying out or approving the project which may have a significant effect upon the environment.” (Pub. Resources Code, § 21067.)

The Plan confirms the Redevelopment Agency’s primary authority for implementation and provides the City with the limited role of cooperation with the Agency. The Plan unequivocally establishes that the Redevelopment Agency is the decisionmaker with the “powers, duties, and obligations to implement and further the program generally formulated in this Plan for the redevelopment, rehabilitation, and revitalization of the Plan Area.” (Plan, Section 101; see also *id.* at Section 700 [“Except as otherwise specified in Section 600 ... [which provides that ‘The City shall aid and cooperate with the Agency in carrying out this Plan . . .’], the administration and enforcement of this Plan, including the preparation and execution of any documents implementing this Plan, shall be performed by the Agency”].) Thus the OCII, as the successor to the Redevelopment Agency, is the agency with principal responsibility under CEQA for carrying out or approving the GSW Event Center project.

The Plan does not require the City’s Planning Commission to participate in OCII’s review and approval of projects, except for the limited purpose of confirming the allocation of commercial office space under City law (Proposition M) and approving the design of office development projects. (Plan, § 304.11.) In fact, the Plan provides that the “Plan and the other Plan Documents, including the Design for Development, shall *supersede the San Francisco Planning Code* in its entirety, except as otherwise provided herein.” (Plan, Section 101.) Therefore, the commenter is incorrect that the City’s Planning Commission was required to review the SEIR, but it did play a role as a responsible agency in reviewing the office component of the project. Responsible agencies have no need to certify EIRs, but instead must “consider” Final EIRs as previously certified by lead agencies before the responsible agencies take their own actions with respect to those aspects of a project subject to their jurisdiction. (CEQA Guidelines, § 15096, subds. (a), (e)(2), (f); see also responses to comments O-MBA24L9-6, O-MBA27S9-3, O-MBA27S9-6, and O-MBA28L11-2.)



The commenter is correct that the City has a role in the approval process. As indicated in the Plan, the City is to cooperate with the Agency and to further such cooperation, the Plan provides for a cooperation agreement between the Agency and the City. (Plan, Section 102.) Subsequent approvals undertaken by the City and its various departments must be heard by the City, and various departments within the City, serving as a responsible agency under CEQA. (Pub. Resources Code, § 21069.) This division between OCII – as the lead agency – and the City – as a responsible agency – is fully consistent with the Redevelopment Dissolution Law and CEQA.

On June 2, 2015, OCII exercised its discretion to create a process with respect to Environmental Impact Reports (“EIRs”) certified by OCII for Environmental Leadership Projects by which an interested party may file an appeal to the Board of Supervisors in its capacity as the state-authorized governing body of the Successor Agency. This appeal process exceeds the requirements of CEQA, and was not created as a means of complying with Public Resources Code section 21151, subdivision (c), which sets forth the CEQA requirement relating to administrative appeals where an elected decisionmaking body exists for a local lead agency. That statute does not apply here.

In general, the Board of Supervisors of the City and County of San Francisco is an elected body for the purpose of serving as the governing body of the City and County of San Francisco. In contrast, the successor agency is a separate legal entity from the City and County of San Francisco, created by the state legislature. The Board of Supervisors thus is not an elected body for the purpose of acting as the governing body of the successor agency. Further, as the governing body of the Successor Agency, it has no decisionmaking role over the Project’s land uses or its compliance with the Plan. As pointed out above, the approval actions required by OCII for the GSW Event Center project do not involve any approval action by the Board of Supervisors acting in its capacity as the governing body of the successor agency. Accordingly, Public Resources Code section 21151(c) is not applicable to the GSW Event Center project SEIR certification.

In short, the successor agency does not have an elected decisionmaking body. While the Board of Supervisors serves as the successor agency, “[w]ell-established and well-recognized case law holds that the mere fact that the same body of officers acts as the legislative body of two different governmental entities does not mean that the two different governmental entities are, in actuality, one and the same.” (*Pacific States Enterprises, Inc. v. City of Coachella* (1993) 13 Cal.App.4th 1414, 1424.)

This conclusion is consistent with the holding in *No Wetlands Landfill Expansion v. County of Marin* (2012) 204 Cal.App.4th 573 (*No Wetlands*). In *No Wetlands*, the court held that the Marin County Board of Supervisors did not constitute the elected decisionmaking body of the Marin County Environmental Health Services (“Marin EHS”) for the purposes of CEQA. (*Id.* at p. 586.) In reaching this conclusion, the court noted that the Marin EHS was certified by California’s Department of Resources Recycling and Recovery (“CalRecycle”) pursuant to the California Integrated Waste Management Act of 1989 (“Waste Act”) to implement the



Waste Act. (*Id.* at p. 578.) The court also explained that certain actions by Marin EHS were subject to review and concurrence by CalRecycle. (*No Wetlands, supra*, 204 Cal.App.4th at p. 581.) In consideration of relevant Waste Act provisions, the court determined:

Marin EHS is the local enforcement agency under the Waste Act and the lead agency under CEQA. Marin EHS is a separate and distinct legal entity from Marin County. Marin EHS's decisionmaking body is its deputy director. Marin EHS has no elected decisionmaking body. While the Board of Supervisors is an elected governing body, it is not a decisionmaking body of Marin EHS.

(*No Wetlands, supra*, 204 Cal.App.4th at p. 584.)

As a result, the court held Public Resources Code section 21151 does not require "Marin EHS's EIR certification... [be] appeal[able] to the Board of Supervisors, which is not a decisionmaking body" with authority over projects approved by Marin EHS. (*Id.* at p. 586.)

As a result, the court held Public Resources Code section 21151 does not require "Marin EHS's EIR certification... [be] appeal[able] to the Board of Supervisors, which is not a decisionmaking body" with authority over projects approved by Marin EHS. (*Id.* at p. 586.)

The same conclusion is appropriate here. In this case, the Board of Supervisors serves as the successor agency solely under the Redevelopment Dissolution Law, in a separate and distinct capacity as an unelected body.

Further, as noted in *El Morro Community Assn. v. California Dept. of Parks & Recreation* (2004) 122 Cal.App.4th 1341, 1350, section 21151 does not apply to state agencies. CEQA includes no similar administrative appeal requirement for state agencies. Under Redevelopment Dissolution Law, successor agencies generally "succeed to the organizational status of the former redevelopment agency..." under the Community Redevelopment Law. (Health & Safety Code, § 34173, subd. (g); see also *id.*, subd. (a) ["Except for those provisions of the Community Redevelopment Law that are repealed, restricted, or revised pursuant to the act adding this part, all authority, rights, powers, duties, and obligations previously vested with the former redevelopment agencies, under the Community Redevelopment Law, are hereby vested in the successor agencies"].)

The Community Redevelopment Law does not directly define redevelopment agencies as either a state or local agency; the Community Redevelopment Law only provides that "[t]here is in each community a public body, corporate and politic, known as the redevelopment agency of the community." (Health & Safety Code, § 33100.) The Supreme Court previously interpreted similar language under the Housing Authorities Law to mean that the "housing authority was created as a state agency, 'a public body corporate and politic' and is not an agent of the city in which it functions." (*Housing Authority of Los Angeles v. Los Angeles* (1952) 38 Cal.2d 853, 861, interpreting Health & Safety Code, § 34240 ["In each county and city there is a public body corporate and politic known as the housing authority of the county or city"].) Additionally, in *City of Cerritos v. State of California* (2015) 239



Cal.App.4th 1020, 1041, the court held successor agencies are not local agencies within the meaning of Proposition 1A. However, an agency may serve as a state agency for some purposes and a local agency for others. (*Lynch v. San Francisco Hous. Auth.* (1997) 55 Cal.App.4th 527, 534.)

Although CEQA classifies redevelopment agencies as local agencies for purposes of CEQA (see, e.g., Pub. Resources Code, § 21062), the intent and plain language of the Redevelopment Dissolution Law must control in the determination of whether successor agencies should be viewed as state agencies for the purposes of CEQA. The state created successor agencies “to expeditiously wind down the affairs of the dissolved redevelopment agencies and to provide the successor agencies with limited authority that extends only to the extent needed to implement a wind down of redevelopment agency affairs.” (Stats 2011-2012 1st Ex Sess ch 5 § 1.) To achieve the state objective to dissolve redevelopment agencies, the Redevelopment Dissolution Law provides the state with substantial oversight over successor agencies. For example, if a city, county, city and county, or entity forming a joint powers authority does not elect to subsume the separate legal capacity as a successor agency, then the Redevelopment Dissolution Law authorizes the Governor to create an authority to serve as the successor agency. (Health & Safety Code, § 34173, subd. (d)(3); see also Health & Safety Code, § 34179, subds. (b), (k) [establishing a process by which the Governor may fill successor agency oversight board vacancies throughout the state].) Furthermore, a successor agency lacks the authority to “transfer any powers or revenues of the successor agency to any other party, public or private, except pursuant to an enforceable obligation on a Recognized Obligation Payment Schedule approved” by the State Department of Finance. (Health & Safety Code, § 34177.3, subd. (c); see also Health & Safety Code, § 34178, subd. (c) [prohibiting a successor agency from entering certain agreements with the local agencies unless relating to an obligation authorized by the State Department of Finance]; see also Health & Safety Code, § 34179, subd. (h) [with certain exceptions, successor agency oversight board actions must be submitted to the State Department of Finance and only become effective after the State Department of Finance has an opportunity to review the action].) Finally, the Redevelopment Dissolution Law gives the State Department of Finance the authority to dissolve successor agencies after all enforceable obligations have been retired or paid off, all real property has been disposed of, and all outstanding litigation has been resolved, if any. (Health & Safety Code, § 34187, subd. (d).) This state oversight demonstrates that successor agencies, unlike former redevelopment agencies, should be viewed as state agencies rather than local agencies for the purposes of CEQA.

Furthermore, while successor agencies succeeded to the organizational status of the former redevelopment agency under the Community Redevelopment Law, the Redevelopment Dissolution Law demonstrates that successor agencies did not automatically take on the status of redevelopment agencies for the purposes of other laws. For example, existing law establishes that redevelopment agencies are treated as local agencies for the purpose of the Ralph M. Brown Act (Chapter 9 (commencing with Section 54950) of Part 1 of Division 2 of Title 5 of the Government Code) (“Brown Act”). (See, e.g., *Stockton Newspapers v.*



Redevelopment Agency (1985) 171 Cal.App.3d 95, 105 [holding a redevelopment agency violated the Brown Act].) Nevertheless, the Redevelopment Dissolution Law provides that a successor agency is a “local entity” for the purposes of the Brown Act. (See, e.g., Health & Safety Code, § 34173, subd. (g).) If the Legislature intended that successor agencies automatically assume the status of redevelopment agencies for purposes of all laws, it would have been unnecessary for the Redevelopment Dissolution Law to define the status of successor agencies for the purposes of the Brown Act. (*Woodland Joint Unified School Dist. v. Commission on Professional Competence* (1992) 2 Cal.App.4th 1429, 1442 [when interpreting a statute “where possible, every clause and word of a statute should be given effect and meaning”].)

The Redevelopment Dissolution Law does not provide that a successor agency constitutes a “local entity” for any other purpose. The Legislature could have made successor agencies local agencies for the purposes of CEQA if it desired to do so. It must be presumed that the Legislature intended everything in a statutory scheme, and statutes must not be read to omit expressed language or to include omitted language. (*Tyrone W. v. Superior Court* (2007) 151 Cal.App.4th 839, 850; see also *Miklosy v. Regents of University of California* (2008) 44 Cal.4th 876, 896 [“when the Legislature uses a critical word or phrase in one statute, the omission of that word or phrase in another statute dealing with the same general subject generally shows a different legislative intent”].)

In consideration of the plain language of the Redevelopment Dissolution Law and the level of involvement and oversight by the state in the affairs of a successor agency, OCII concludes that successor agencies, unlike a redevelopment agencies, are properly viewed as state agencies for the purposes of CEQA. This conclusion is analogous to the holding in *County of Los Angeles v. Continental Corp.* (1952) 113 Cal.App.2d 207 (*Continental Corp.*). In *Continental Corp.*, the court concluded that the Los Angeles County Board of Supervisors, when serving in its separate role as the Los Angeles County Flood Control District, constituted a “state officer[], and any action taken by such board... [was] not action by the Board of Supervisors of the County of Los Angeles, as such, or of the county of Los Angeles.” (*Id.* at pp. 219-220.)

For all of the above reasons, OCII finds that Public Resources Code section 21151 does not require an appeal be made available from OCII’s action approving the project and certifying the Final SEIR to the Board of Supervisors either in its elected capacity as the governing body of the City and County of San Francisco or in its separate capacity as the successor agency. Nevertheless, while CEQA does not require an administrative appeal, OCII exercised its discretion to provide for an appeal to the Board of Supervisors in its capacity as successor agency with respect to EIR certifications for Environmental Leadership Projects to provide further opportunity for public participation in the administrative process.



## Issues Raised by Late Commenters on General Comments on Environmental Topics

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-19      O-MBA20L7-31      O-MBA20L7-34      O-MBA20L7-38  
O-MBA28L11-3

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For the reasons stated in this letter we believe that the Event Center EIR, amended after the DSEIR review, continues to reflect significant shortcomings that will result in unmitigated, significant, and excessive air quality impacts during the project's construction and then across its operational lifetime. Due to serious issues with M-AQ-1's construction, we believe that it cannot practicably provide the emission reductions claimed for it, and that the benefit of emissions from trips already on the books and associated with the Oakland Oracle Arena, to reduce the complement of all new Event Center trip-related emissions, is not acceptable under CEQA. In addition, serious questions remain regarding costs, availability, and sustained durability of tons of emission credits, likely underestimated due to flaws noted in this letter, that will be needed by the project to reduce its ozone precursor impacts to less-than-significant levels. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-19]*)

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Due to all of the foregoing and other issues not yet addressed in these comments, the SEIR transportation and circulation section is inadequate and unsuited for certification. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-31]*)

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In general, these new analyses and discussions do not appear to support the conclusions and findings, or provide adequate responses to the prior public comments in these Sections. Given the short time available for these comments, we would recommend requesting an extension to be able to more fully review the Lead Agency responses and their analyses from a technical perspective to be able to provide comments on more sections or expand on our comments. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-34]*)

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## SUMMARY

In our opinion, the Responses by the Office of Community Investment and Infrastructure failed in part or in total to respond to our original analyses in several areas. In general, the biological elements of the Response (and provided supporting analyses) lacked technical foundation, ignored or misconstrued our analytical points, or conflated technically correct elements in such a way as to lead to incorrect interpretations. Response BIO-1, General Approach to the Analysis, was not addressed in detail since we believe that no substantive changes have been made to the Biology section and our prior comments still apply. Additional comments that relate back to the BIO-1 Response are also found in the following comments. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-38]*)

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Please refer to the following letters previously submitted and incorporated by reference:

From the Law Offices of Thomas N. Lippe:



- (1) November 2, 2015, letter to OCII and Planning Department re: Comments on Final Subsequent Environmental Impact Report for the Warriors Arena Project Re Air Quality, Transportation, Hydrology, Water Quality, Biological, and Noise Impacts, including:
  - (2) As Exhibit A thereto, a November 2, 2015, letter from John Farrow, including
  - (3) As Exhibit 1 to Exhibit A, November 2, 2015, letter report from Paul Rosenfeld and Jessie Jaeger of SWAPS to Thomas Lippe, re Comments on the Event Center and Mixed-Use Development Project at Mission Bay Blocks 29-32.
  - (4) As Exhibit C thereto, a November 2, 2015, report by Greg Gilbert, Autumn Wind Associates.
  - (5) As Exhibit F thereto, a November 2, 2015, letter from Dan Smith.
  - (6) As Exhibit G thereto, a November 2, 2015, letter from Larry Wymer.
  - (7) As Exhibit H thereto, a November 2, 2015, letter from Matt Hageman.
  - (8) As Exhibit I thereto, a November 2, 2015, letter from Erik Ringelberg and Kurt Balasek.
  - (9) As Exhibit J thereto, a November 2, 2015, letter from Erik Ringelberg.
  - (10) As Exhibit K thereto, a July 16, 2015, BSK Technical Memorandum Regarding the Proposed Warrior Arena Wetland Features by Erik Ringelberg and Kevin Grove.
  - (11) As Exhibit L thereto, an October 29, 2015, Draft Waters and Wetland Delineation Report Proposed Mission Bay Development, Blocks 29-32 San Francisco, California, by Erik Ringelberg and Kevin Grove of BSK Associates.
  - (12) November 2, 2015, letter to OCII re: Warriors Arena Project: Violation of Variance Requirement.
  - (13) November 5, 2015, letter to Planning Commission re: Warriors Arena Project: Planning Codes section 321 and 305, General Plan Inconsistency and CEQA Findings.
  - (14) July 24, 2015, letter regarding impacts on Hydrology, Water Quality, and Biological Resources, including:
  - (15) July 21, 2015, letter report authored by Matt Hageman, P.G., C.Hg., QSD, QSP;
  - (16) July 21, 2015, letter report authored by Erik Ringelberg, B.Sc., M.Sc., Ph.D candidate; and Kurt Balasek, PG, CHg, QSD.
  - (17) July 25, 2015, letter regarding impacts on Noise and Vibration, including:
  - (18) July 24, 2015, letter report authored by acoustic engineer Frank Hubach.
  - (19) July 26, 2015, letter regarding impacts on Air Quality, including:
  - (20) July 19, 2015, letter report authored by Greg Gilbert; and
  - (21) July 20, 2015, letter report authored by Paul Rosenfeld, Ph.D, and Jessie Jagger.
  - (22) July 27, 2015, letter regarding impacts on Transportation, including:
  - (23) July 23, 2015, letter report authored by traffic engineer Dan Smith; and
  - (24) July 21, 2015, letter report authored by traffic engineer Larry Wymer.
- From the law firm of Soluri Meserve:
- (25) November 3, 2015, Letter to the San Francisco Municipal Transportation Agency, Board of Directors regarding their November 3, 2015, Agenda Item No. 13.
  - (26) November 2, 2015, Letter to the OCH and San Francisco Planning Department regarding the Environmental Review for Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32.



(27) October 20, 2015, letter to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review for Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 - Updated Soil and Screening Levels.

(28) October 7, 2015, Letter to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review for Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 - Clean Water Act 404 and CZMA Consistency.

(29) July 9, 2015, Letter to the San Francisco Planning Department regarding Notice of Incomplete Record for Warriors Event Center Environmental Review.

(30) 9. July 26, 2015, letter regarding impacts on Geology and Soils, Recreation, Hazardous Materials, , Greenhouse Gases, Wind and Shadow, Utilities and Service Systems, Public Services, Energy and Urban Decay, including:

(31) July 22, 2015, letter report authored by air quality professionals Patrick Sullivan, CPP, REP A, and Joh Henkelman, regarding Greenhouse Gas Emissions;

(32) July 22, 2015, letter report authored by geotechnical engineer Lawrence Karp, CE, CEG, regarding Geology and Soils impacts;

(33) July 22, 2015, letter report authored by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts);

(34) July 22, 2015, letter report authored by geotechnical engineer Martin Cline, GEG and Kurt Balasek, PG, CHg, QSD, regarding Hazardous Materials; and (35) July 22, 2015, letter report authored by economist Philip King, Ph.D., regarding Urban Decay.

(36) June 29, 2015, letter regarding the City's failure to comply with AB 900 record keeping procedures and the resultant ineligibility of the Project for AB 900's litigation fast track procedures.

From the Brandt-Hawley Law Group:

(37) October 13, 2015, letter to the OCH the potentially-feasible alternate site adjacent to Pier 80.

(38) November 3, 2015, letter to the OCH regarding inadequate CEQA findings and inadequate SEIR responses to comments relating to land use plan inconsistencies, potentially-feasible project alternatives, and cultural resources.

(39) 8. July 26, 2015, letter regarding impacts on Land Use, Aesthetics, Cultural Resources, and Project Alternatives.

From Thomas Lippe, Susan Brandt-Hawley, Patrick Soluri, and Osha Meserve jointly:

(40) July 26, 2015, letter regarding EIR tiering;

(41) July 26, 2015, letter regarding litigation streamlining under AB 900.

*(Mission Bay Alliance, Thomas N. Lippe, letter, November 9, 2015 [O-MBA28L11-3])*

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### Response to Late Comment ERP-6: on General Comments on Environmental Topics

The comments in this category are general statements regarding overall concerns with the SEIR or potential impacts on various environmental topics. Due to the lack of specific information in these comments, the responses to those comments are incorporated in the specific responses to specific comments on the same topic.



***Comment O-MBA20L7-19***

Please refer to Section 9 of this Exhibit D regarding Response to Late Comments on Air Quality, as well as to RTC document Section 13.13.

***Comment O-MBA20L7-31***

Please refer to Section 8 of this Exhibit D regarding Responses to Late Comments on Transportation, as well as to RTC document Section 13.11.

***Comment O-MBA20L7-34***

This comment does not provide any specific information to support its claim, and the commenter is referred to this entire Exhibit D and the entire RTC document for responses to comments on the SEIR. Given that the commenter has submitted at least a dozen letters on the SEIR since publication of the RTC document, including on the order of 1,000 pages of comments, OCII believes that the commenter has had adequate time to review the RTC document and that no extension in review time is warranted.

***Comment O-MBA20L7-38***

Please refer to Section 15 of this Exhibit D regarding Responses to Late Comments on Biological Resources, as well as to RTC document Section 13.19.

***Comment O-MBA28L11-3***

OCII has received the various letters and exhibits listed by the commenter, and responses to all substantive comments in those letters are included in this Exhibit D and/or in the RTC document. Please see Table 1 in Section 1 of this Exhibit D for the appropriate comment letter codes for letters submitted at the time of or subsequent to publication of the RTC document. Please see Chapter 11 of the RTC document for the comment letter codes for comments included in the RTC document. Responses to all substantive comments, as designated by their comment code, are provided either in this Exhibit D and/or in the RTC document, organized by topic.

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## SECTION 4: RESPONSES TO LATE COMMENTS ON THE AB 900 PROCESS

The comments and corresponding responses in this section cover topics related to the Jobs and Economic Improvement through Environmental Leadership Act (Assembly Bill 900 or AB 900), which is discussed in SEIR Chapter 2, Introduction, Section 2.7, Assembly Bill 900, as augmented in RTC document Section 13.4. These include topics related to:

- Issue AB-1: AB 900 Administrative Record

### Issues Raised by Late Commenters on AB 900 Administrative Record

This response addresses all or part of the following comments, which are quoted below:

O-MBA16S6-2

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#### 2. AB900

Although the Project previously received certification from the Governor's office under AB 900, that law has very specific procedural requirements with which the City has failed to comply.

As previously noted, the City has failed to make the record of proceeding available online as required by Public Resources Code section 21186 ("Section 21186"). In response to clear evidence of the City's failure to post online all required documents as required by Section 21186, the City now takes the legal position in the FSEIR that the City is somehow allowed to create two administrative records – one that is posted online as required by Section 21186, and a more expansive record that satisfies the requirements of Public Resources Code section 21167.6, subdivision (e)(10). This interpretation is contrary to the plain language of the Section 21186, which requires the City to timely post online all documents that will comprise the administrative record ultimately certified by the City. Any contrary interpretation would be absurd in light of the accelerated litigation briefing schedule provided by AB 900. Accordingly, the City's actions to flout its duties under AB 900 affirmatively prejudices any potential CEQA petitioner, and represents an intentional misuse of AB 900.

As the City knows full well, a motion to augment the record as provided by AB 900 will not adequately mitigate that prejudice where, as here, the lead agency knowingly and intentionally creates two separate administrative records – one for posting online and a second for ultimate certification – specifically in order to frustrate any future legal challenges. The only effective remedy in this instance is for the City to recirculate the DSEIR along with all documents comprising the administrative record in compliance with AB 900, which the Alliance calls upon the City to do. (*Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [AR-O-MBA16S6-2]*)

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### Response to Late Comment AB-1: AB 900 Administrative Record

As acknowledged in Comment O-MBA16S6-2, the Governor certified, and the Joint Legislative Budget Committee concurred, that the project meets the requirements of the Jobs and Economic Improvement Act of 2011, Public Resources Code sections 21178, et seq. ("AB 900"). (Governor's Certification Granting Streamlining for the Golden State Warriors Event Center and Mixed Use Development at Mission Bay, April 30, 2015.) The project's eligibility for the AB 900 streamlining is not subject to further review. (Pub. Resources Code, § 21184(b)(1).)



Since certification of the proposed project as an environmental leadership development project by the Governor under AB 900, OCII has complied, and continues to comply, with the procedural requirements of AB 900. OCII published and continues to update the administrative record of proceedings for the project, which is available online, in a downloadable format, at <http://www.gsweventcenter.com>. This record includes the Draft SEIR and Response to Comments document, and all other documents submitted to or relied on by OCII in the preparation of the SEIR. Following release of the Draft SEIR for public comment, OCII has continued to update the record with additional documents that it has prepared, as well as those that it has received from the project sponsor, State agencies and City departments, and members of the public.

Contrary to the claim asserted by the commenter, OCII has not taken the position that it has created two separate administrative records. Rather, as discussed in Response AB-2 of the RTC document Section 13.4 (p. 13.4-16), in accordance with AB 900, OCII has posted the *complete* administrative record online. RTC Response AB-2 also provides specific responses to each document the commenter alleges was improperly excluded from the administrative record, and explains why each document is not within the scope of the CEQA administrative record for this project, as set forth in Public Resources Code Section 21167.6(e). Comment O-MBA16S6-2 (the November 2, 2015 letter from the commenter) does not identify any new or additional documents that were allegedly omitted from the record from what the commenter submitted in an earlier letter.

OCII will continue to update the administrative record with documents it prepares or receives through final approval of the project. These documents will continue to be posted online and available for download. Thus, the record, as ultimately certified, will comply with both the procedural requirements of Public Resources Code Section 21186, and the substantive requirements regarding the contents of an administrative record, as set forth in Section 21167.6(e). Finally, OCII notes that under AB 900, the remedy for an allegedly insufficient administrative record is not recirculation of the EIR as the letter alleges, but rather an order from the superior court to augment the record. (Pub. Resources Code § 21186(i).)

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## SECTION 5: RESPONSES TO LATE COMMENTS ON THE PROJECT DESCRIPTION

The comments and corresponding responses in this section cover topics discussed in SEIR Chapter 3, Project Description, as augmented in RTC document Section 13.5. These include topics related to:

- Issue PD-1: Project Assumption

### Issues Raised by Late Commenters on Project Assumptions

This response addresses all or part of the following comments, which are quoted below:

O-MBA16S6-10      O-MBA23S7-1      O-MBA26S8-1      O-MBA27S9-4

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#### 9. Flawed and Misleading Approach to Analyzing and Mitigating the Project's Transportation Impacts

Buried within the "project description" are *de facto* mitigation measures for the Project's impacts on transportation. More specifically, these mitigation measures include both one-time capital improvements and ongoing expenditures as set forth in the Transportation Management Plan ("TMP") and Transit Service Plan ("TSP"). The City's strategy of conflating analysis of the Project's design features and mitigation measures violates CEQA. (See, e.g., *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645; see comments by Smith Engineering and Management dated November 2, 2015, pp. 2-3.) The prejudice associated with the City's strategy, other than simply obscuring the City's massive public subsidy for the Project, is that the EIR "fail[s] to consider whether other possible mitigation measures would be more effective." (Id. at 657.)

The City also appears to rely on the incorporation of these plans into the project description in order to conceal from the public the City's failure to require full mitigation of the Project's impacts from the applicant. It is a bedrock principle of environmental law that development projects should mitigate their environmental impacts to the extent feasible. With respect to the Project's transportation impacts, however, the City deviates from this principle and instead adopts an odd, ad hoc "fair share" fee program to mitigate project-level impacts. (*Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173 ("*Anderson First*").) As a threshold matter, the SEIR never clearly discloses to the public that it essentially relies upon "fair share" payments from the Project in order to mitigate its project-level transportation impacts, which renders the SEIR defective as an informational document. Had the SEIR done so, it would have been apparent that the SEIR failed to disclose necessary information about this fair share program.

The payment of a "fair share" impact fees may constitute adequate mitigation if they "are part of a reasonable plan of actual mitigation that the relevant agency commits itself to implementing." (*Ibid.*) The *Anderson First* decision identified the information that is required in an EIR to establish the adequacy of a "fair share" mitigation measure, which includes the following:

- (i) An identification of the required improvement;
- (ii) An estimate of the cost of the required improvement;
- (iii) Sufficient information to determine how much the project would pay towards the improvement; and
- (iv) The fees must be part of a reasonable, enforceable plan or program sufficiently tied to the actual mitigation of the impacts at issue.

(*Anderson First, supra*, 130 Cal.App.4th at 1188-89.)



The SEIR fails to provide this necessary information. While the SEIR mentions the TMP and TSP as addressing the Project's transportation impacts, the SEIR fails to identify the total costs of the improvements, the Project's allocated contribution, and the enforceable plan or program to contribute the Project's "fair share."

The SFMTA spreadsheet entitled "Capital and Operating Cost Estimates for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (The Project)," dated October 13, 2015, is instructive. (See [Exhibit 5](#).) Considering only one-time "capital uses" and "capital uses allocation to project," (i.e., excluding ongoing costs to mitigate the Project's transportation impacts), it reveals that the total cost of these improvements is \$64,663,474, and the Project's fair share allocation is \$61,898,909. Of the amount "allocated" to the Project, however, only \$27,390,335 will actually be paid by the project applicant. Thus, the Project is contributing less than 50% of its allocated fair share contribution that is necessary to mitigate the Project's transportation impacts. To make matters worse, only \$19,434,536 is coming from an existing and enforceable impact fee program. The balance of the project applicant's contribution, approximately \$7,955,799, is the result of the City's voluntary redirection of General Fund revenues.

In other words, rather than simply require the project applicant to be responsible for the capital improvements needed to mitigate its project-level impacts, the City establishes some fair share fee program and then does not even require the applicant to pay the fair share fee – instead voluntarily giving up General Fund revenues that are intended to support other Citywide programs and services. By cloaking this deficient mitigation strategy as a design feature of the Project, the City never engages in a meaningful analysis of potentially feasible mitigation measures involving the project applicant actually mitigating these project-level impacts.

A similar deficiency applies to the Project's ongoing costs to mitigate its project-level transportation impacts. Total ongoing annual costs to mitigate the Project's transportation impacts are estimated at \$8,209,318 in FY18-18. Of this amount, \$2,773,110 in revenue is not paid from an enforceable impact fee program but rather re-directed from the General Fund. What more, significant additional City revenues, which are not even generated by the Project but rather "allocated" to the Project such as off-site parking and hotel tax, will be re-allocated to pay for the Project's ongoing mitigation for project-level transportation impacts. These reallocations of General Fund revenues cannot constitute an enforceable plan that is subject to future discretionary actions by the Board of Supervisors. Even the future adoption of the so-called Mission Bay Transportation Improvement Fund is inadequate to ensure future reallocations of General Fund revenues because the present Board of Supervisors cannot bind by mere ordinance the discretion of future Boards. (*McMahan v. City and County of San Francisco* (2005) 127 Cal.App.4th 1368.)

In short, the City is inexplicably failing to require the applicant to bear responsibility for fully mitigating its own project-level impacts. Rather, the City is setting up a flawed *de facto* fair share fee program to pay for these project-level mitigations, and redirecting revenues generated by the Project and elsewhere to cover the funding gap for these mitigation measures. This deficiency is nowhere disclosed to the public in the SEIR. The City may not rely on the preparation of various "plans" as a smokescreen to conceal from the public the Project's failure to mitigate its own project-level impacts and massive public subsidy needed to make up for that deficiency. The SEIR is misleading, and fails as an informational document with respect to mitigation for transportation impacts.

The City's action to mitigate the Project's transportation impacts is also an undisclosed public subsidy that triggers substantive and procedural mandates by the City before committing to such subsidy. (See [Exhibit 6](#), report by Marin Economic Consulting dated November 2, 2015.) More specifically, these subsidies include committing to direct General Fund revenues to pay for light rail cars, and "allocating" parking/hotel tax revenues from other properties to pay these expenses. California law requires the City to notice and hold a public hearing before committing to such subsidies. The City is also required to provide detailed information about the purpose, nature, extent and effect of such subsidies prior to commitment. The City has failed to comply with these



substantive and procedural mandates prior to approving this public subsidy. (*Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-10]*)

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The Project's FSEIR is defective as an informational document with respect to the analysis and public disclosure of impacts and mitigation measures regarding transportation. Impermissibly buried within the "project description" are *de facto* mitigation measures for the Project's transportation impacts. These mitigation measures include both one-time capital improvements and ongoing expenditures as set forth in the Transportation Management Plan ("TMP") and Transit Service Plan ("TSP"). The City's strategy of conflating analysis of the Project's design features and mitigation measures violates CEQA. (See, e.g., *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645.) The prejudice associated with the City's strategy, other than simply obscuring the City's massive public subsidy for the Project, is that the EIR "fail[s] to consider whether other possible mitigation measures would be more effective." (Id. at 657.)

The City also appears to rely on the incorporation of these plans into the project description in order to conceal from the public the City's failure to require full mitigation of the Project's impacts from the applicant. It is a bedrock principle of the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq. ("CEQA"), 21002; see also CEQA Guidelines, § 15126.4) that development projects should mitigate their environmental impacts to the extent feasible. With respect to the Project's transportation impacts, however, the City deviates from this principle and instead adopts an odd, ad hoc "fair share" fee program to supposedly mitigate project-level impacts. (*Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173 (*Anderson First*)). As a threshold matter, the SEIR never clearly discloses to the public that it essentially relies upon "fair share" payments from the Project in order to mitigate its project-level transportation impacts, which renders the SEIR defective as an informational document. Had the SEIR done so, it would have been apparent that the SEIR failed to disclose necessary information about this fair share program.

The payment of a "fair share" impact fees may constitute adequate mitigation if they "are part of a reasonable plan of actual mitigation that the relevant agency commits itself to implementing." (Id. at 1188-89.) The *Anderson First* decision identified the information that is required in an EIR to establish the adequacy of a "fair share" mitigation measure, which includes the following:

- (i) An identification of the required improvement;
- (ii) An estimate of the cost of the required improvement;
- (iii) Sufficient information to determine how much the project would pay towards the improvement; and
- (iv) The fees must be part of a reasonable, enforceable plan or program sufficiently tied to the actual mitigation of the impacts at issue.

(*Ibid.*)

The SEIR fails to provide this necessary information. While the SEIR mentions the TMP and TSP as addressing the Project's transportation impacts, the SEIR fails to identify the total costs of the improvements, the Project's allocated contribution, and the enforceable plan or program to contribute the Project's "fair share."

Although not included in the Project's CEQA documentation, some of this necessary information is contained in the Event Center Expenditure Plan, which the SFMTA is scheduled to review and approve on November 3, 2015 ("Expenditure Plan"). (See Enclosure 3 to Staff Report.) The Expenditure Plan reveals the legal deficiencies in the City's mitigation strategy for the Project's transportation impacts. Considering only one-time "capital uses" and "capital uses allocation to project," (i.e., excluding ongoing costs to mitigate the Project's transportation impacts), it reveals that the total cost of these improvements is \$64,663,474, and the Project's fair share allocation is \$61,898,909. Of the amount "allocated" to the Project, however, only \$27,390,335 will actually be paid by the project applicant, over the course of several years with the City fronting the funds for the



improvements from the General Fund. Thus, the Project is contributing less than 50 percent of its allocated fair share contribution that is necessary to mitigate the Project's transportation impacts. To make matters worse, only \$19,434,536 is coming from an existing and enforceable impact fee program. The balance of the project applicant's contribution, approximately \$7,955,799, is the result of the City's planned redirection of General Fund revenues.

In other words, rather than simply require the project applicant to be responsible for the capital improvements needed to mitigate its project-level impacts, the City establishes a fair share fee program and then does not even require the applicant to pay the fair share fee – instead voluntarily giving up General Fund revenues that are intended to support other Citywide programs and services. By cloaking this deficient mitigation strategy as a design feature of the Project, the City never engages in a meaningful analysis of potentially feasible mitigation measures involving the project applicant actually mitigating these project-level impacts.

A similar deficiency applies to the Project's ongoing costs to mitigate its project-level transportation impacts. Total ongoing annual costs to mitigate the Project's transportation impacts are estimated at \$8,209,318 in FY18-18. Of this amount,

\$2,773,110 in revenue is not paid from an enforceable impact fee program but rather re-directed from the General Fund. What more, significant additional City revenues, which are not even generated by the Project but rather "allocated" to the Project from sources such as off-site parking and hotel tax, will be re-allocated to pay for the Project's ongoing mitigation for project-level transportation impacts. These reallocations of General Fund revenues cannot constitute an enforceable plan that is subject to future discretionary actions by the Board of Supervisors. Even the anticipated future adoption of the Mission Bay Transportation Improvement Fund ordinance is inadequate to ensure future reallocations of General Fund revenues because action by ordinance is cannot bind future Boards. (*McMahan v. City and County of San Francisco* (2005) 127 Cal.App.4th 1368.)

In short, the City fails without explanation to require the applicant to bear responsibility for fully mitigating its own project-level impacts. Instead, the City is setting up a flawed *de facto* fair share fee program to pay for this project-level mitigation, and redirecting revenues generated by the Project and elsewhere to cover the funding gap for these mitigation measures. This deficiency is nowhere disclosed to the public in the SEIR. The City may not rely on the preparation of various "plans" as a smokescreen to conceal from the public the Project's failure to mitigate its own project-level impacts and massive public subsidy needed to make up for that deficiency. The SEIR is misleading, and fails as an informational document with respect to mitigation for transportation impacts.

The City's action to mitigate the Project's transportation impacts is also an undisclosed public subsidy that triggers substantive and procedural mandates by the City before committing to such subsidy. The attached report by Dr. Jon Haveman explains that the redirection of General Fund and other revenues to mitigate the Project's impacts represents a loss of revenue to the City (see Exhibit 1), which in turn constitutes a public subsidy under California law. More specifically, these subsidies include committing to direct General Fund revenues to pay for light rail cars, construction of transportation improvements, public safety and traffic officers, etc., "allocating" parking/hotel tax revenues from other properties to pay these expenses.

Because the TMP and TSP are built into the project description, the City's approval of the Project commits the City to the subsidy as set forth in these plans, which is further reinforced by the City's approval of the Expenditure Plan. California law requires that the City must provide public notice and a public hearing, as well as detailed information about the purpose, nature, extent and effect of such subsidy, prior to making such a commitment. The City has failed to comply with these substantive and procedural mandates prior to approving this public subsidy for the Project. (*Mission Bay Alliance, Soluri Meserve, letter, November 3, 2015 [O-MBA2357-1]*)

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As explained in this firm's November 3, 2015, Letter to the San Francisco Municipal Transportation Agency ("MTA"), Board of Directors regarding their November 3, 2015, Agenda Item No. 13, the SEIR



is defective as an informational document with respect to the analysis and public disclosure of impacts and mitigation measures regarding transportation under the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq. ("CEQA")). Specifically, the SEIR does not describe the approval of the Mission Bay Transportation Improvement Fund ("MBTIF") as a mitigation measure. Yet the MBTIF is essential to the City's attempts to mitigate the Project's transportation-related impacts. The City's strategy of conflating analysis of the Project's design features and mitigation measures violates CEQA. (See, e.g., *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645.) The prejudice associated with the City's strategy, in addition to obscuring the City's public subsidy for the Project, is that the EIR "fail[s] to consider whether other possible mitigation measures would be more effective." (Id. at 657.)

The City also appears to rely on the incorporation of the MBTIF into the Project description in order to conceal from the public the City's failure to require full mitigation of the Project's impacts from the applicant. A fundamental principle of CEQA is that development projects should mitigate their impacts to the extent feasible. (See, e.g., Pub. Resources Code, § 21002; see also CEQA Guidelines, § 15126.4.) With respect to the Project's transportation impacts, the City deviates from this principle and instead adopts an odd, ad hoc "fair share" fee program to mitigate Project-level impacts. (*Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173 (*Anderson First*).) As a threshold matter, the SEIR never discloses to the public that it essentially relies upon "fair share" payments from the Project in order to mitigate its Project-level transportation impacts, which renders the SEIR defective as an informational document. Had the SEIR described the Project's approach to mitigating transportation impacts, it would have been apparent that the SEIR failed to disclose necessary information about this fair share program.

The payment of "fair share" impact fees may constitute adequate mitigation if the payments "are part of a reasonable plan of actual mitigation that the relevant agency commits itself to implementing." (Id. at 1188-1189.) The *Anderson First* decision identified the information that is required in an EIR to establish the adequacy of a "fair share" mitigation measure, which includes the following:

- (i) An identification of the required improvement;
- (ii) An estimate of the cost of the required improvement;
- (iii) Sufficient information to determine how much the project would pay towards the improvement; and
- (iv) The fees must be part of a reasonable, enforceable plan or program sufficiently tied to the actual mitigation of the impacts at issue.

(*Ibid.*)

The SEIR fails to provide this necessary information, and never even mentions the MBTIF. While the SEIR does mention the Transportation Management Plan ("TMP") and Transit Service Plan ("TSP") as addressing the Project's transportation impacts, the SEIR fails to identify the total costs of the improvements, the Project's allocated contribution, and the enforceable plan or program to contribute the Project's "fair share." The new information contained within this Committee's agenda packet regarding the MBTIF and other related matters cannot substitute for full disclosure of the selected approach to mitigation of transportation related impacts in the SEIR.

In addition, the actions on November 6, 2015, by the MTA, and this Committee's planned actions today with respect to approval of the MBTIF and the grant of street and easement vacations are contrary to California public disclosure laws with respect to economic development subsidies. California law requires the City to provide public notice and a public hearing, as well as detailed information about the purpose, nature, extent and effect subsidies, prior to commitment. (Gov. Code, § 53083.) The Budget and Legislative Analyst's Memorandum ("BLA Memo"), along with the SFMTA Cost Estimate spreadsheet make clear that there is an estimated revenue shortfall of \$29,916,666, which will be financed through sale of SFMTA revenue bonds or other City financing source. (BLA Memo, pp. 7-8.) Payment of these Project mitigation costs by the City is an economic development subsidy, even if the loan is eventually repaid. (Gov. Code, §53083, subd. (g)(I).) Moreover, the summary vacation of streets and easements likely has value, yet no value is disclosed.



Thus, the City must now comply with the substantive and procedural mandates of Government Code section 53083 prior to approving subsidies in the form of loans and other benefits included in the MBTIF and other related City actions and approvals, that provide transportation, infrastructure, public safety and other mitigation for Project impacts. (*Mission Bay Alliance, Soluri Meserve, letter, November 3, 2015 [O-MBA26S8-1]*)

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As explained in this firm's November 3, 2015, letter to the MTA, Board of Directors regarding their November 3, 2015, Agenda Item No. 13, incorporated by reference, the SEIR is defective and cannot be relied upon as an informational document with respect to the analysis and public disclosure of impacts and mitigation measures regarding transportation under the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq. ("CEQA")). Specifically, the SEIR does not describe the approval of the Mission Bay Transportation Improvement Fund ("MBTIF") as a mitigation measure. The MBTIF is essential to the City's attempts to mitigate the Project's transportation-related impacts and its omission from the SEIR precludes this Commission's consideration of a Place of Entertainment Permit. The City's strategy of conflating analysis of the Project's design features and mitigation measures violates CEQA. (See, e.g., *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645.) (*Mission Bay Alliance, Soluri Meserve, letter, November 10, 2015 [O-MBA27S9-4]*)

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### Response to Late Comment PD-1: Project Assumptions

The commenter states that the Final SEIR's analysis of the proposed project conflates project design features with mitigation measures, in violation of the Court of Appeal's decision in *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645. In that case, the court determined that the discussion of certain impacts in an EIR was inadequate because, rather than identifying a standard of significance and describing the impacts, the EIR assumed that special construction techniques would be incorporated into the project and did not disclose whether there would be an impact without the incorporation of these special construction techniques; nor did the EIR disclose what standard would be used to determine whether residual impacts remaining after incorporating the construction techniques would be "significant" under CEQA.

That has not occurred here. In this instance, with respect to traffic impacts, the SEIR identifies the standards used to determine whether an impact is "significant." (Draft SEIR, section 5.2.5.1.) The Draft SEIR also describes the project. The project includes road and transit improvements that will be implemented as part of the project, and those that are already being implemented as part of the Mission Bay Plan. (Draft SEIR, section 5.2.5.2.) This approach is consistent with CEQA. (See, e.g., *Wollmer v. City of Berkeley* (2011) 193 Cal.App.4th 1329 [citing road improvements to support city's conclusion that project would not result in traffic impacts].) Because these improvements must be constructed, OCII appropriately incorporated these improvements into its analysis of the project's traffic impacts. (See, e.g., *Berkeley Hillside Preservation v. City of Berkeley* (2015) 60 Cal.4th 1086 [for purposes of CEQA analysis, city appropriately assumed project would be constructed as proposed].) OCII has not cited vague special construction techniques as a basis for foregoing



further traffic analysis, as occurred in *Lotus*. The description of traffic-related project improvements is concrete and specific.

The commenter is incorrect that the project involves a “massive” public subsidy triggering substantive and procedural mandates. Neither the project nor the special reserve fund for transit improvements in the vicinity, constitute the type of “economic development subsidy” to which the commenter presumably refers. “Economic development subsidies” are payments or credits “for the purpose of stimulating economic development.” (Gov. Code, § 53083(g)(1).) The transit expenditures, in contrast, help accommodate the transit needs of the existing and anticipated development in Mission Bay, including the Project and surrounding neighborhoods. For example, the proposed ordinance that would adopt the Mission Bay Transportation Improvement Fund, provides that the fund is “for the purpose of safeguarding monies in the General Fund to pay for: City services and capital improvements to address transportation and other needs of the community” in connection with events at the project site. (San Francisco Board of Supervisors File No. 150995.) Moreover, the legislative history of Government Code section 53083 establishes that the Legislature did not intend economic development subsidies to include financing for public infrastructure improvements in redevelopment areas. In any case, in light of the numerous public hearings to consider the project and the Mission Bay Transportation Improvement Fund, and the information made available through the online administrative record for the Project (<http://www.gsweventcenter.com>), OCII has satisfied both the procedural and substantive requirements for adopting an “economic development subsidy” under section 53083.<sup>1</sup>

Citing financial figures derived from an attached report prepared by Marin Economic Consulting, the commenter also states the revenue and cost figures relied upon by OCII and SFMTA are inaccurate. Please see Response to Late Comment GEN-1 in Section 2 of this Exhibit D.

The commenter states that a bedrock principle of CEQA is that development projects should mitigate their environmental impacts to the extent feasible, citing CEQA Guidelines § 15126.4; the implication being that the CEQA analysis is flawed if mitigation is paid for by someone other than the developer. First, the developer is paying for mitigation; second, there is no such principle in CEQA or the cited CEQA Guidelines. Although the cited CEQA Guidelines limit mitigation that can be imposed on a developer to that proportional to the impact caused by the development, nothing in CEQA precludes a public agency from taking steps itself to undertake mitigation.

The commenter states the project improperly relies on an ad-hoc, “fair share” mitigation program, in violation of *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173. This statement is incorrect.

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<sup>1</sup> Memorandum from Deputy City Attorney Brian F. Crossman to Adam Van de Water, Office of Economic and Workforce Development, regarding Economic Development Subsidies under Government Code Section 53083 (Nov. 6, 2015.)



*Anderson First* involved an EIR prepared for a proposed shopping center. The EIR assumed that certain road improvements would be constructed to address project-specific and cumulative traffic. The Court upheld this approach in most respects because the record contained evidence showing the necessary improvements would be constructed, either because the project could not proceed before they were completed, or because city policy committed to constructing them in the future. (130 Cal.App.4th at pp. 1186-1188.) The court rejected one such measure, however – the construction of a freeway interchange – because although the project had to contribute its fair share towards the cost of the interchange, no other funding had been secured, and no plan was in place to construct it; for this reason, the construction of the interchange was too speculative to rely upon to mitigate the traffic impacts of the project and other growth in the area. (130 Cal.App.4th at pp. 1188-1189. Compare *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 141 [payment of adopted traffic impact fee upheld].)

In this case, the proposed project is subject to payment of an adopted fee for infrastructure, including transportation improvements. The payment of this fee – referred to as the “TIDF” – constitutes the proposed project’s “fair share” towards the cost of the improvements funded by the fee. OCII’s consultants have estimated that this fee will be approximately \$17,436,000.

The commenter states the funding for implementation of the Transportation Management Plan (“TMP”) is uncertain, such that implementation of the TMP is speculative. This statement is incorrect. The TMP has been proposed by the applicant as part of the project. (See Draft SEIR, pp. 5.2-55 – 5.2-69; see also Draft SEIR, Appendix TMP.) The TMP consists of various measures to provide safe and efficient access to the event center, to encourage transit use, and to provide facilities for pedestrians and bicyclists. The TMP establishes a specific performance standard that must be attained: to reduce single occupancy vehicle trips to/from the site, with a maximum auto mode split of 53 percent for event attendees during weekday peak event conditions (6:00 p.m. – 8:00 p.m.), and a maximum auto mode split of 59 percent for all trips during weekend peak event conditions (6:00 p.m. – 8:00 p.m.). The description of the TMP cannot credibly be described as skeletal; on the contrary, the Draft SEIR describes the TMP and its components in great detail.

The applicant is responsible for implementing the TMP. No public funds will be used for this purpose. Although the TMP is not a “mitigation measure,” OCII has included implementation of the TMP in the Mitigation Monitoring and Reporting Program (MMRP) in order to track the applicant’s implementation of the TMP. (See MMRP, Table D, approved November 3, 2015.) The TMP also includes monitoring and adaptation requirements to ensure the identified performance standard is met. No public subsidy of the TMP is required. Implementation of the TMP is not speculative.

The commenter states funding for capital improvements to the transportation network and for ongoing operational transit and traffic-control costs are speculative. The capital improvements consist primarily of expanding the existing Muni platform on Third Street immediately adjacent to the project site (as approved by OCII, referred to as the “Muni



UCSF/Mission Bay Station Platform Variant”), purchasing four Muni rail cars, upgrading the T Third Line, and installing signage and signals. The operational improvements consist of operating three special event shuttles to regional transit stations, increasing bus service along 16th Street, coordinating with other transit providers to provide increased special event service, deploying an expanded network of parking control officers, and implementing a plan to maintain access to the UCSF Mission Bay campus. Funding for these capital and operational costs is not speculative. The project is expected to result in \$14.1 million in estimated project-generated tax revenues. The City has introduced legislation to create a special reserve account so that a portion of this revenue will be set aside to service the debt for capital costs, and to provide an ongoing source of revenue for operational costs. In approving the project, OCII and SFMTA have committed to the implementation of these measures. The record shows there will be sufficient revenue to cover these costs. The record therefore supports the conclusion that these measures will be carried out. (*Anderson First, supra*, 130 Cal.App.4th at pp. 1187-1188 [upholding adequacy of measure to address cumulative traffic as based on “a reasonable plan of actual mitigation that the relevant agency has committed itself to implementing.”].)

The record provides ample evidence that OCII and SFMTA will follow through on the commitment to implement these measures. The record also contains information that project-related revenue will be sufficient to implement them. Under such circumstances, the record supports the conclusion that these measures will, in fact, be carried out. (See *Santa Clarita Organization for Planning the Environment v. County of Los Angeles* (2007) 157 Cal.App.4th 149, 163 [agency did not have to identify funding source to carry out mitigation measures requiring remediation of contaminated wells; mitigation upheld absent an admission that funding would be inadequate]. Compare *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261-1262 [city violated CEQA by adopting mitigation measure requiring implementation of transportation plan, while admitting that revenue was insufficient to implement plan].) This commitment does not rely on revenue subsidies from other sources. Rather, the revenue required to implement these measures will be generated as a direct result of the proposed project.

Furthermore, the Supreme Court has made it clear that mitigation measures need not be perfect, and that each mitigation measure included in an EIR does not need to equate to an ironclad guarantee that impacts will be avoided. In *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376 (*Laurel Heights I*), the Supreme Court summarized the court’s role in determining the adequacy of mitigation measures adopted under CEQA:

[T]he question is only whether there is substantial evidence to support [the agency’s] conclusion. [¶] In answering that question, the reviewing court must consider the evidence *as a whole*. That an EIR’s discussion of mitigation measures might be imperfect in various particulars does not necessarily mean it is inadequate. ...The proper judicial goal ... is not to review each item of evidence in the record with such exactitude that the court loses sight of the rule that the evidence must be considered as a whole.



(*Laurel Heights I, supra*, 47 Cal.3d at pp. 407-408, italics original.) As further explained in *San Franciscans Upholding the Downtown Plan v. City & County of San Francisco*, “[w]ith regard to the discussion of mitigation measures, an EIR need not be exhaustive or perfect; it is simply ‘required to describe feasible measures which could minimize significant adverse impacts.’ [Citation.]” (102 Cal.App.4th 656, 696.) “[The court] reviews the EIR’s discussion of mitigation measures by the traditional substantial evidence standard. It is not [the court’s] task to determine whether adverse effects could be better mitigated.” (*Ibid.*, citing *Laurel Heights I, supra*, 47 Cal.3d at pp. 392-393.)

Thus, as the Supreme Court has affirmed, CEQA requires only that substantial evidence supports the agency’s conclusion that the mitigation measures, as a whole, will mitigate (i.e., lessen, reduce, avoid) the significant impact. (*Laurel Heights I, supra*, 47 Cal.3d. at pp. 407-408; see also *id.* at p. 418 [upholding mitigation measure to reduce parking impact to less-than-significant level that required the university to “promote ongoing campus transportation systems, management programs, including promotion of transit, carpooling, vanpooling, and related activities”]; *Neighbors for Smart Rail v. Exposition Metro Line Const. Authority* (2013) 57 Cal.4th 439, 465-477 [upholding parking mitigation measure that required agency to monitor impact and work with local jurisdictions to implement permit program or other options, and which was considered sufficient to reduce impacts to less-than-significant levels]; see also *Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018 [substantial evidence supported agency’s findings that mitigation measures would be adequately funded and monitored despite some uncertainties regarding future conditions].

In reviewing the adequacy of mitigation measures, courts have emphasized that the “substantial evidence rule does not require certainty; substantial evidence is ‘enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached.’” (*Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal.App.4th 99, 139, quoting CEQA Guidelines, § 15384, subd. (a); see also *Friends of Lagoon Valley v. City of Vacaville* (2007) 154 Cal.App.4th 807, 817-819 [rejecting Appellants’ contention that there was no guarantee that mitigation measures would ever be constructed, holding “the project will contribute money to specific mitigation measures...all that is required by CEQA [] is that there be a reasonable plan for mitigation.”]; *City of Marina v. Board of Trustees of California State University* (2006) 39 Cal.4th 341, 364-365 [uncertainties regarding the implementation of improvements do not render a fee-based mitigation plan inadequate].

*Neighbors for Smart Rail, supra*, 57 Cal.4th 439, is instructive. In that case, the respondent, a regional transportation agency, was required to address potential spill-over parking effects that might result from development of new transit facilities. Since the respondent lacked legal authority to regulate parking in affected areas, the EIR proposed (and the agency adopted) mitigation measures that contemplated that local municipal governments would, with assistance from the respondent, develop and implement permit parking programs or



other parking restrictions if monitoring proved that there was a problem. Project opponents objected that this mitigation was not legally enforceable. The Supreme Court responded that “CEQA, however, allows an agency to approve or carry out a project with potential adverse impacts if binding mitigation measures have been ‘required in, or incorporated into’ the project, or if [t]hose changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.” (*Id.* at 465, emphasis in original, internal citations omitted.) The Court noted that, while the lead agency “[could] not guarantee local governments will cooperate to implement permit parking programs or other parking restrictions, the record supports the conclusion these municipalities ‘can and should’ [citation] do so.” (*Id.* at p. 519.) Thus, the question is not whether the lead agency can guarantee that impacts will be mitigated, but whether reasonable means for mitigating impacts are identified in the EIR, even if some uncertainty remains.

The commenter states that the current Board of Supervisors cannot enact an ordinance – in this case, the Special Reserve legislation – that limits the legislative discretion of future Boards. A future Board can always adopt policy decisions that reverse or modify the policy decisions of the current Board. That principle applies equally to decisions that are made as part of the CEQA process. (See *Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342 [agency has discretion to delete previously adopted mitigation measure].) The fact that a future legislative body may make policy decisions that differ from those of OCII, SFMTA, and the Board of Supervisors does not mean that the policy decisions made as part of the project are ephemeral. If that were true, then an agency could never cite its commitment to carry out a mitigation measure, based on the possibility that a future decision-maker could undo that commitment.

Even if there were some obligation to consider the possibility that the transportation-related commitments would not be carried out due to lack of funding, the SEIR provides that analysis. The SEIR analyzes the traffic impacts that would occur in the event SFMTA does not implement its “Muni Special Event Transit Service Plan” during peak evening events. (See DSEIR, pp. 5.2-191 to 5.2-208.) As the Draft SEIR explains:

The City and County of San Francisco fully anticipates implementation of this plan and has identified sufficient funding. However, in order to provide a conservative CEQA analysis as well as information to the public and decision-makers, this group of impacts discloses the impacts of the proposed project if for some unknown reasons in the future, the City is unable to implement the Muni Special Event Transit Service Plan. This group of impacts analyzes only the Basketball Game scenario as the representative worst-case scenario.

(Draft SEIR, p. 5.2-80.)

Further, as explained in the Draft SEIR, in the event the Transit Service Plan is not implemented, the Project Sponsor would be required to implement Mitigation Measure M-TR-18, which requires the project sponsor to implement specific transportation demand



management (TDM) measures that are intended to reach an auto mode share performance standard for different types of events.

Finally, in approving the proposed project, OCII and SFMTA both found that certain of the project's traffic-related impacts would be significant and unavoidable. OCII and SFMTA adopted this finding based in part on the possibility that a future Board of Supervisors or SFMTA Board could decline to provide adequate funding to implement these measures. In acknowledging this uncertainty, and adopting a "statement of overriding considerations" with respect to these potential impacts, OCII and SFMTA met their obligations under CEQA. (*Citizens for Open Government v. City of Lodi* (2012) 205 Cal.App.4th 296, 322; *Fairview Neighbors v. County of Ventura* (1999) 70 Cal.App.4th 238, 242.)

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## SECTION 6: RESPONSES TO LATE COMMENTS ON PLANS AND POLICIES

The comments and corresponding responses in this section cover topics discussed in SEIR Chapter 4, Plans and Policies, as augmented in RTC document Sections 13.5, 13.6, and 13.8. These include topics related to:

- Issue PP-1: Mission Bay South Redevelopment Plan and Variance Requirements
- Issue PP-2: Planning Code Section 321
- Issue PP-3: General Plan Consistency
- Issue PP-4: Plan Bay Area

### Issues Raised by Late Commenters on Mission Bay South Redevelopment Plan and Variance Requirements

This response addresses all or part of the following comments, which are quoted below:

O-MBA17L5-2	O-MBA18L6-1	O-MBA19B3-1	O-MBA22B4-4
O-MBA24L9-2	O-MBA25L10-2	O-MAB27S9-1	O-MBA28L11-4
PH2-Lippe-1	PH2-Lippe-5	PH2-Hawley-1	

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The November 17, 2014 Initial Study for the Project asserted the event center is an allowable secondary use under the Redevelopment Plan because “The proposed event center uses are considered ‘nighttime entertainment uses.’”<sup>1</sup>

Then on July 26, 2015, Susan Brandt-Hawley, my co-counsel for the Alliance, submitted a letter to OCII arguing that “The Event Center is not ‘Nighttime Entertainment’ as Defined in the Mission Bay South Redevelopment Plan.” (July 26, 2015, Brandt-Hawley Law Group letter, p. 3.)

Now, almost a year after the Initial Study and three months after Ms Brandt-Hawley’s letter, the first suggestion that OCII might change its position on whether or how the event center is an allowable secondary use under the Redevelopment Plan is a short line in the Responses to Comments published on October 23, 2015, stating that “the Mission Bay Redevelopment Plan analyzed under the 1998 SEIR permits all of the project uses as either principally permitted uses (Office, Retail, Arts Activities, Open Recreation / Outdoor Activity Areas, Parking) or as secondary uses (Assembly and Entertainment Uses, including Nighttime Entertainment and Recreation building uses, as well as other uses such as Public Structures and Uses of a Nonindustrial Character).” (FSEIR/RTC, Volume 4, p. 13.3-27.)

Then, only three business days before the OCII hearing to determine this question, Ms. Bohee’s memorandum for the first time publicly asserts a rationale for considering the event center an allowable secondary use as either a “recreation building” or a “public structure or use of a nonindustrial character.” (See Attachment C, pp. 6-7.) Aside from the substantive inadequacy of the rationale, which will be the topic of separate correspondence, this short turnaround time on a question of this importance deprives the public, and my client, of a fair trial under subdivision (b) of section 1094.5 of the Code of Civil Procedure.

In addition, Attachment C states that the “determination” that the event center is a “public structure or use of a nonindustrial character” is “consistent with OCII precedent; for example, in approving the UCSF Medical Center the Executive Director found that it constituted a secondary use as a public structure notwithstanding those members of the public generally pay for medical services provided at the center.” (Attachment C, p. 7.)



**Footnote:**

- <sup>1</sup> “The proposed project would result in the construction and operation of an event center, office and retail uses, parking facilities and open space areas within the project site. The retail and office uses would be generally consistent with the previously proposed uses for the site, such that no new or more severe conflicts with land use character would occur. The proposed event center uses are considered “nighttime entertainment uses....” (Initial Study, p. 33)

*(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA17L5-2])*

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I write today regarding the OCII’s failure to require a variance or “variation” for this Project under section 305 of the Mission Bay South Redevelopment Plan (“Plan”). The November 2, 2015, letter from Susan Brandt-Hawley, my co-counsel for the Alliance, demonstrates this Project is not an allowable secondary use under the Plan. Thus, a variance is not available because, as shown by Brandt-Hawley, the Project “will change the land uses on this Plan.” (Plan, § 305.) However, in the alternative, if the Project is an allowable secondary use under the Plan, then the OCII must process this Project application as a variance and make the findings required by Plan section 305 before Project approval.

Both California and San Francisco planning law provide a process for landowners to obtain a “variance” from the “uniformity” of zoning limits that, while appropriate for the zone district in general, would impose undue hardship due to unique characteristics of a specific parcel. Government Code section 65906 governs the grant of zoning variances by municipalities and prohibits local agencies from granting “special privileges” to individual landowners. Similarly, San Francisco Planning Code, section 305, subdivision (a), provides that a variance permit must be approved for any exception to the requirements of the Planning Code. Subdivision (c) thereof mirrors the requirements of state law, and requires a finding that “owing to such exceptional or extraordinary circumstances the literal enforcement of specified provisions of this Code would result in practical difficulty or unnecessary hardship ....”

Similarly, the Plan includes a variance provision that reflects the same substantive requirements as Government Code section 65906 and Planning Code section 305:

The Agency may modify the land use controls in this Plan where, owing to unusual and special conditions, enforcement would result in undue hardships or would constitute an unreasonable limitation beyond the intent and purposes of these provisions. Upon written request for variation from the Plan’s land use provisions from the owner of the property, which states fully the grounds of the application and the facts pertaining thereto, and upon its own further investigation, the Agency may, in its sole discretion, grant such variation from the requirements and limitations of this Plan. The Agency shall find and determine that the variation results in substantial compliance with the intent and purpose of this Plan, provided that in no instance will any variation be granted that will change the land uses on this Plan.

(Plan, § 305.)

Because the Plan’s variance provision imposes virtually identical requirements as Planning Code section 305, both apply. (Plan, §’s 101 [“Regardless of any future action by the City or the Agency, whether by ordinance, resolution, initiative or otherwise, the rules, regulations, and official policies applicable to and governing the overall design, construction, fees, use or other aspect of development of the Plan Area shall be (i) this Plan and the other applicable Plan Documents, (ii) to the extent not inconsistent therewith or not superseded by this Plan, the Existing City Regulations and (iii) any new or changed City Regulations permitted under this Plan”]; 304.9.C.(iv)).

Here, the Project creates at least sixteen inconsistencies with the Design for Development (D4D). The OCII now proposes to amend the D4D, the Owner’s Participation Agreement (OPA), and other Plan documents to resolve these inconsistencies by, including but not limited to, raising maximum height limits from 90 to 135 feet, allowing a second 160+ foot tower, increasing bulk limits to accommodate the arena, and changing arena setbacks, street wall heights, view corridors, public rights of way, and parking standards. (See e.g., Draft SEIR, pp. 4-7 - 4-9, § 4.2.4; Proposed Resolution 2015,



exhibit A; Memorandum to the OCII from Executive Director Tiffany Bohee for Items 5(a), 5(b), 5(c), 5(d) & 5(e) the November 3, 2015, CCII meeting agenda, pp. 4, 22.)

Even if the Project's land uses are allowable secondary uses, these amendments "modify the land use controls in this Plan" as provided in Plan section 305. But the Project Sponsor has made no showing that due to "unusual and special conditions, enforcement would result in undue hardships or would constitute an unreasonable limitation beyond the intent and purposes of these provisions." (Plan, § 305.)

"Variances are, in effect, constitutional safety valves to permit administrative adjustments when application of a general regulation would be confiscatory or produce unique injury." (Curtin's California Land Use and Planning Law, p. 55.) Variance requirements also implement the State Planning and Zoning Law's requirement of "uniformity" of zoning rules within zoning districts. (See Gov. Code, § 65852 ["All such [zoning] regulations shall be uniform for each class or kind of building or use of land throughout each zone, but the regulation in one type of zone may differ from those in other types of zones;" *Neighbors in Support of Appropriate Land Use v. Cnty. of Tuolumne* (2007) 157 Cal.App.4th 997, 1008 (Neighbors).) The State Planning and Zoning Law also requires vertical consistency between local agencies general plans, zoning ordinances, and land use permits. (Gov. Code, § 65860, subd. (c) ["County or city zoning ordinances shall be consistent with the general plan of the county or city..."]; see *DeVita v. Cnty. of Napa* (1995) 9 Cal.4th 763, 772 ["A general plan is a 'constitution' for future development [citation omitted] located at the top of 'the hierarchy of local government law regulating land use'"].)

California courts have vigorously enforced the requirements for granting a variance, and have developed extensive jurisprudence to corral the many stratagems local agencies have used to avoid its requirements. (See e.g., *Topanga Association v. County of Los Angeles* (1974) 11 Cal.3d 506, 511-12 (Topanga); *Orinda Assn. v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1166 (*Orinda Assn*) ["A zoning scheme, after all, is similar in some respects to a contract ... If the interest of these parties in preventing unjustified variance awards for neighboring land is not sufficiently protected, the consequence will be subversion of the critical reciprocity upon which zoning regulation rests..."].)

Variance findings must focus on a comparison of the subject property to other properties in the zone district with which the variance is intended to bring it into parity, and the benefits to the community or "public interest" associated with a zoning exception are irrelevant. (*Orinda Assn, supra*, at p. 1166.) By amending the Plan documents to accommodate this Project, the OCII would cast these requirements aside and grant a "special privilege" to this Project Sponsor.

In *Neighbors*, rather than adopt a rezone or grant a variance, the County created a special exception to the zoning ordinance for one landowner by including it in a development agreement adopted under the development agreement law. (*Neighbors, supra*, 157 Cal.App.4th at p. 1003.) In rejecting this stratagem, the Court in *Neighbors* noted that there are limits on the power to rezone: "The foundations of zoning would be undermined, however, if local governments could grant favored treatment to some owners on a purely ad hoc basis ... [R]ezoning, even of the smallest parcels, still necessarily respects the principle of uniformity." (Id. at pp. 1009-10.)

A similar result occurred in *Trancas Prop. Owners Assn. v. City of Malibu* (2006) 138 Cal.App.4th 172 (*Trancas*). In *Trancas*, the court held an exemption from a city's zoning requirements accomplished by contract functionally resembled a variance, and held that "such departures from standard zoning by law require administrative proceedings, including public hearings ... followed by findings for which the instant [density] exemption might not qualify... Both the substantive qualifications and the procedural means for a variance discharge public interests. Circumvention of them by contract is impermissible." (Id. at p. 182.)

In sum, the OCII's proposed grant of zoning exceptions to this Project by way of amending the Plan documents rather than by variance violates the Plan, the variance requirements of the San Francisco Planning Code and state law, and the uniformity requirement of state law. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA18L6-1]*)



The Mission Bay Alliance (the Alliance) contends that the Warriors' Event Center is unlawfully inconsistent with every use allowed by the Mission Bay South Redevelopment Plan (the Plan). Although the Alliance raised this issue in comments on the Draft Subsequent EIR (DSEIR), both the Responses to Comments in the Final SEIR and OCII's findings of project consistency remain materially inadequate.

The Plan designates uses allowed at a 'Commercial Industrial/Retail' site. The Alliance notes that while OCII now concedes that a sports arena is not within the scope of allowed 'principal uses' in that zoning, OCII contends that an arena is consistent with 'secondary uses.' As this letter will explain, all such secondary uses are similarly and demonstrably insufficient to permit the Warriors' sports arena.

**Nighttime Entertainment.** The Initial Study concluded, in error, that the DSEIR did not need to address land use issues — at all. It asserted that the entire Event Center, including the sports arena use, somehow met the secondary 'Nighttime Entertainment' use analyzed in the 1998 Plan EIR. Secondary uses were then generally referenced in the DSEIR (e.g., pp. 3-8, 3-51, 4-5, 5.2-115), but there was no discussion of which category of secondary use would be allocated to the Event Center, inferring acceptance of the Nighttime Entertainment category.

The Plan describes Nighttime Entertainment in terms of small-scale local uses like dance halls, bars, nightclubs, discotheques, nightclubs, private clubs, and restaurants. (Plan, p. 50.) At the time of the 1998 EIR, several small neighborhood bars occasionally offered nighttime entertainment, consistent with the secondary use category. Such minor uses were compatible with the 3rd Street Corridor and the waterfront. Clearly, no mammoth regional entertainment venue was anticipated in Mission Bay South and no such use was considered in the 1998 Plan EIR.

And while professional basketball games are held at night, the Event Center also projects 31 annual events "related to conventions, conferences, civic events, corporate events and other gatherings," with an estimated attendance of between 9,000 and 18,500 patrons. "[T]he majority of events are expected to occur during day time hours." Such events are not 'Nighttime Entertainment.'

The Director's currently---proposed findings that the sports arena is

'Nighttime Entertainment' contemplated as a secondary use in the Plan are unsupported. The findings fail to match the scope and impacts of a professional sports venue with the analysis or description of uses in the Plan or in the 1998 EIR. The findings are fatally conclusory; that somehow a professional sports venue would be "similar" to a nightclub or bar use in the 'Nighttime Entertainment' category "because" it will serve alcohol, provide amplified live entertainment, and provide a venue for evening gatherings. The findings fail to address the core inconsistency of a regional sports arena with the intent of the adopted Plan and the Design for Development, which focus on commercial entertainment uses in Mission Bay North to complement the Giants' ballpark.

OCII's reliance on the negative; to wit, that the 'Nighttime Entertainment' secondary use has no specific size limitations, is not enough. The Plan provides for the continued development of Mission Bay South as a walkable urban community intended to facilitate world-class medical and biotechnology development. The Event Center project violates the Plan Area Map carefully designed in classic, walkable Vara Blocks. (Plan, Attachment 2, p. 40.) Neither the Plan nor the Design for Development contemplate any uses comparable in scope or impact to the Event Center as 'Nighttime Entertainment.'

That being said, in fact in the Final SEIR and as reflected in the proposed Plan consistency findings, OCII now implicitly agrees with the Alliance that the 'Nighttime Entertainment' secondary use standing alone does not encompass a sports arena. Now, OCII additionally relies on the Plan's alternate 'secondary uses.' No such uses are consistent with the Plan, as explained below.

**Recreation Building.** One of the Plan's secondary use categories is for an undefined 'Recreation building.' (Plan, p. 15.) The Plan describes 'Outdoor Recreation' as "an area, not within a building, which is provided *for the recreational uses of patrons* of a commercial establishment." (Plan, p. 50, italics added.)



OCII's proposed findings as to the 'Recreation building' category stretch the regional sports arena use not only beyond what was contemplated by the Plan or studied in the 1998 EIR, but beyond logic. To state the obvious: there is a difference between 'recreation' and 'entertainment.' Both involve enjoyment and leisure, and may involve ancillary eating and drinking, and the Alliance has no quarrel with the Director's reference to recreation as "something people do to relax or have fun; activities done for enjoyment." (OCII Proposed Secondary Use Determination, p. 6.) But myriad dictionary definitions confirm and it cannot readily be denied that 'recreation' is commonly understood to involve one's personal physical activities while 'entertainment' refers to events or performances designed to entertain others.

None of the Plan's various references to 'entertainment' include athletic activities normally considered 'recreation:' Adult Entertainment [bookstore or theater], Amusement Enterprise [video games], Bar [drinking and theater], Theater [movies and performance]. (Plan, Attachment 5, pp. 44-51.) Consistently, the 1998 EIR's discussion of 'recreational' land uses focused in turn on open space, bicycles, parks, and water-based activities. (Mission Bay EIR, Volume IIB, pp. V.M. 15-28.).

In context, the Plan's reference to 'Recreation building' as a secondary use contemplates participatory recreational uses like the 'recreation facilities' referenced in the 1998 Plan EIR for the existing golf driving range and in-line hockey rink, with the expressed expectation that the size of recreational 'facilities' would decrease as redevelopment of the Plan area progressed. (OCII Proposed Secondary Use Determination, p. 6.)

Reliance on the secondary use of 'Recreation building' is unsupported.

**Public Structure or Use of a Nonindustrial Character.** As presented in the Plan, the category of "other secondary uses" labeled 'Public structure or use of a nonindustrial character' references one secondary use, not two. (Plan, p. 13.) The use is required to be public, and either a structure or a use.

The interpretation urged by the Director is, again, strained beyond the plain words of the Plan. 'Public' is not defined in the Plan and so its common meaning is assumed. But as proposed in the consistency findings, OCII interprets a 'public' use as simply requiring that the public be somehow 'served.' That would encompass every kind of principal and secondary use listed in the Plan, from child care to animal care to hotel, etc., and renders the category meaningless: i.e., "Any use is ok."

Instead, a public structure or use is commonly understood to be under the control and management of a public agency for the benefit of its constituency — such as the University of California<sup>1</sup> or the City of San Francisco. The Plan provides a description of a range of anticipated public improvements in Attachment 4. This list includes both public buildings and public uses. None of the public improvements listed in Attachment 4 include anything like a private professional sports arena.

The Event Center is a private project and is not within the scope of the secondary use category for a public structure or use of a nonindustrial character.

**Director's Findings.** As explained, the sports arena uses that are the impetus for the Event Center project are not allowed by the Plan's allowed principal or secondary uses. An allowed use is prerequisite for a finding of Plan consistency. The Alliance will not belabor the myriad other inconsistencies with the Plan's objectives, design, incompatibility with UCSF, and creation of significant environmental impacts, as those have been described in the DSEIR comments and throughout the administrative record, but hereby objects to their insufficiencies and lack of supporting substantial evidence for the Plan consistency finding.

Consideration of the Event Center project must be preceded by amendment of the Plan to be consistent with the delineated principal and secondary uses and the adopted Plan Area Map of the Mission Bay South Redevelopment Plan. (*Mission Bay Alliance, Susan Brandt-Hawley, letter, November 2, 2015 [O-MBA19B3-1]*)



**a. Land Use.** The Alliance submitted a letter from the undersigned counsel on November 2, 2015, reiterating in detail how the proposed Event Center's sports arena is not consistent with any of the principal or secondary uses allowed by the Mission Bay South Redevelopment Plan, including the secondary uses now being invoked by OCII for the first time in the Final SEIR. That letter is here incorporated by reference. The Draft SEIR did not address land use issues because the Initial Study and Notice of Preparation posited that all of the uses proposed by the Event Center were encompassed within the 'Nighttime Entertainment' secondary use that had been analyzed in the 1998 Mission Bay EIR.

That EIR's refusal to analyze the project's land use inconsistencies has not been cured by the Responses to Comments, which now fails and/or inaccurately responds to the Alliance's DSEIR comments about secondary use categories, the Event Center's conflicts with Mission Bay South design criteria, including Vara Blocks, and impacts to community character. The inadequate Responses to Comments as to these land use inconsistencies constitutes a separate ground of legal error.

The SEIR should be revised and recirculated after amendment of the Mission Bay South Redevelopment Plan to provide for a consistent principal or secondary use. (*Mission Bay Alliance, Name, letter, November 3, 2015 [O-MBA22B4-4]*)

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**b. This Project is inconsistent with the Redevelopment Plan.**

A basic premise of the Planning Commission decisions in Resolution 14702 and Motion 17709, and a fundamental rationale for "superseding" section 321's guidelines in favor of the Redevelopment Plan and Redevelopment Plan documents, were the Commission's findings that the Redevelopment Plan met standards set in section 321, the San Francisco Master Plan, the priority policies in Planning Code section 101.1, and the requirements of redevelopment law. In short, in order to be eligible for the office space allocation available under motion 17709, the Project must be consistent with the Redevelopment Plan.

This Project is inconsistent with the Redevelopment Plan because, as demonstrated in the November 2, 2015, letter from Susan Brandt-Hawley, my co-counsel for the Alliance (attached as Exhibit 1), this Project is not an allowable secondary use under the Redevelopment Plan. However, in the alternative, as shown in my November 2, 2015, letter (attached as Exhibit 2), if the Project is an allowable secondary use under the Redevelopment Plan, then it requires a variance under section 305 of the Plan before Project approval. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 5, 2015 [O-MBA24L9-2]*)

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2. The Project does not comply with the Mission Bay South Redevelopment Plan as discussed in my November 5, 2015, letter to the Planning Commission attached as Exhibit 1. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 6, 2015 [O-MBA25L10-2]*)

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Consideration of the Place of Entertainment Permit is premature and unlawful because the entertainment uses proposed by the Warriors sports arena are not a primary or secondary use allowed under the Mission Bay South Redevelopment Plan, as explained by my co-counsel Susan Brandt-Hawley on behalf of the Alliance in submissions to the OCII in July, October, and November 2015, and testimony before the OCII on November 3, 2015. (*Mission Bay Alliance, Soluri Meserve, letter, November 10, 2015 [O-MAB27S9-1]*)

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2. The Project does not comply with the Mission Bay South Redevelopment Plan as discussed in my November 5, 2015, letter to the Planning Commission attached as Exhibit 1. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 9, 2015 [O-MBA28L11-4]*)

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And a couple of points. First of all, on the secondary use finding, Susan Brandt-Hawley, my co-counsel, has sent a letter by E-mail yesterday, contesting the secondary use -- the appropriateness of finding that this as an allowable secondary use under the Redevelopment Plan. So, I would encourage you to take a look at that. She's also going to speak today to flesh out the reasons for that.

If it turns out that it is a proper secondary use, then you actually need a variance under the Redevelopment Plan. You can't just amend the Design for Development.

And I have a letter on that point, which I'd like to submit to you today, which I also E-mailed yesterday, and that is here. (*Thomas N. Lippe, Transcript, November 3, 2015 [PH2-Lippe-1]*)

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And then, finally, I have a letter from my co-counsel, Soluri Meserve, on the noncompliance of the EIR by CEQA. (Letter submitted to staff.) (*Thomas N. Lippe, Transcript, November 3, 2015 [PH2-Lippe-5]*)

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We all support the Warriors. That's not the issue here today, but the public looks to this Commission to follow the environmental laws in every way before approving this project or considering approval.

You've received a number of letters from me and others regarding environmental problems, and yet the Final EIR that we just received a little over a week ago, with thousands of pages, the approvals are being rushed through, which is unfair to the Commission and unfair to the public, because a lot of the environmental questions have not been solved.

I would like to turn in, for the record, just a few letters that I've sent to you. But these are hard copies, in case you don't have them yet. (Letters submitted to staff.)

I'd like to focus, in just this very short amount of time, on a really critical underlying issue and problem here that needs to be solved that we brought up in the Draft EIR comments in July -- that the EIR declined to study in any way the land-use consistency of this plan.

The South Mission Bay Redevelopment Plan sets out a very careful, planned community in these classic bare blocks to allow development of the biotech industry and other compatible uses.

The EIR did not study land use, claiming that this qualified as a secondary nighttime entertainment. And as I explained in my letter, none of the secondary uses -- nighttime entertainment, that's supposed to be for bars and small evening establishments; a recreation building, which is being claimed, when this is actually entertainment, which is not an active recreation, but it's, in fact, something that people watch; or a public structure or use, which, in fact, this is not, because it's not a public building.

You can fix this problem by considering amendment of the Redevelopment Plan. But right now, this project is directly inconsistent and does not qualify for -- as a secondary, much less a primary use.

So, we'd ask you to take some more time, look at the EIR comments that we've submitted, and, in particular, take a hard look at these findings that are not supportable regarding the secondary use. (*Susan Brandt-Hawley, Transcript, November 3, 2015 [PH2-Hawley-1]*)

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### Response to Late Comment PP-1: Secondary Uses under the Mission Bay South Redevelopment Plan and Variance Requirements

The commenter asserts that the Project should seek a variation under Section 305 of the Mission Bay South Redevelopment Plan (“Plan”) to approve the Project and equates the Plan’s variation procedure with the separate and distinct state and local planning standards governing variances. The commenter also states that variance findings could not be made in any event because a variance is not authorized pursuant to the Section 305 of the San Francisco Planning Code and Government Code section 65906. The commenter also asserts that approval of the Project is inconsistent with the requirement of Government Code section 65852 relating to the uniformity of zoning rules within zoning districts.

The Plan establishes the “basic land use controls within which specific redevelopment activities in the Plan Area will be pursued.” (Plan, § 101.) The Plan also provides that OCII may “modify the land use controls in this Plan where owing to unusual and special conditions, enforcement would result in undue hardships or would constitute an unreasonable limitation beyond the intent and purposes of these provisions.” (Plan, § 305.) Significantly, the Project did not seek, and does not need, a modification to the land use controls in the Plan.

The Project conforms with the planning and design controls described in Section 300 (in particular, Sections 302.4 and 304) of the Plan, the Land Use Map (Attachment 3 to the Plan), and the Zone Map (Attachment 3a to the Plan). The Plan’s land use controls establish permitted uses, a maximum height limitation of 160 feet, the amount of leasable square footage that can be developed in each land use district, and floor area ratio. The Project complies with all of the maximum development standards established under the Plan. The Project, however, does require modification to the Mission Bay South Design for Development (“D for D”), which provides ancillary design standards and guidelines that must be consistent with the Plan and that are subject to amendment by the Commission on Community Investment and Infrastructure (“CCII”) in its sole discretion. On November 3, 2015, CCII approved, by Resolution 71-2015, D for D amendments that are consistent with the Plan’s land use controls and the authority granted to OCII under Section 306 of the Plan to establish “development and design controls necessary for the proper development of both private and public areas within the Plan Area.” To the extent that the Project requires D for D amendments and those amendments are consistent with the Plan, OCII need not consider a variation under Section 305 to approve the Project. OCII determined, by Resolution No. 71-2015 (Nov. 3, 2015), that the D for D amendments “comply with the land use controls of the Plan and are consistent with the Plan’s redevelopment objectives.”

Moreover, the commenter’s reliance on state and local planning standards regarding variances is inapposite. In reviewing and approving the Project, OCII exercises its state authority under the Community Redevelopment Law, Cal. Health & Safety Code Sections 33000 et seq., as modified by the Redevelopment Dissolution Law, Cal. Health & Safety Code Sections 34170 et seq. Under this authority, OCII must apply, among other things, the Plan’s land use controls to fulfill the state mandate to wind down redevelopment projects by



expeditiously completing enforceable obligations, such as the Mission Bay South Owner Participation Agreement, that pre-date redevelopment dissolution. In completing these obligations, OCII, as the successor agency to the former redevelopment agency, exercises state—not local—authority.

The Planning and Zoning Law (including Government Code sections 65906 and 65852), which are referenced in the comment, are not applicable to OCII's efforts to implement the Plan. The Planning and Zoning Law (§ 65000 et seq.) states that its provisions regulating zoning apply to counties and general law cities, but not to charter cities (such as the City and County of San Francisco). (Gov. Code, § 65803.) Both former redevelopment agencies and successor agencies to former redevelopment agencies are "separate legal entit[ies] from the city or county that established it." (*City of Cerritos v. State of California* (2015) 239 Cal.App.4th 1020, 1028; see also Health & Safety Code, § 34173, subd. (g).) Therefore, the Planning and Zoning Law does not apply to a redevelopment agency's development of, or modifications to, documents implementing a redevelopment plan. (*PR/JSM Rivara LLC v. Community Redevelopment Agency* (2009) 180 Cal. App. 4th 1475, 1482-1483.)

Furthermore, Section 305 of the San Francisco Planning Code is not applicable to projects proposed within the Plan Area. As set forth in the Plan, the "Plan and the other Plan Documents, including the D for D, shall supersede the San Francisco Planning Code in its entirety, except as otherwise provided herein." (Plan, § 101.) Therefore, the commenter is incorrect that Section 305 of the San Francisco Planning Code applies to OCII's action on the Project.

The commenter cites to a number of published decisions concerning variance and uniformity requirements under the Land Use and Planning Law. (*Neighbors in Support of Appropriate Land Use v. Cnty. of Tuolumne* (2007) 157 Cal.App.4th 997, 1008; *DeVita v. Cnty. of Napa* (1995) 9 Cal.4th 763, 772; *Topanga Association v. County of Los Angeles* (1974) 11 Cal.3d 506, 511-12; *Orinda Assn. v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1166; *Trancas Prop. Owners Assn. v. City of Malibu* (2006) 138

Cal.App.4th 172, 182.) As the Land Use and Planning Law issues addressed in those decisions are not applicable to implementation of a redevelopment plan by successor agencies to former redevelopment agencies, the decisions are distinguishable. Notably, these decisions illustrate that changes to land use controls may generally be implemented through a variety of methods, including rezoning, text changes to land use controls, variances, or conditional use permits where authorized. The Plan does not limit the manners in which OCII may exercise its discretion to implement changes to the D for D. Therefore, neither the Plan nor the case law cited by the commenter, support the conclusion that OCII was required to approve a variation pursuant to Section 305 of the Plan in order to approve the Project.

Although – as discussed above – Government Code section 65852 and its uniformity requirement is not applicable to the successor agency, if it were applicable, OCII's approval



of the Project would be consistent with that requirement. Government Code section 65852 provides that zoning regulations “shall be uniform for each class or kind of building or use of land throughout each zone, but the regulation in one type of zone may differ from those in other types of zones.” The Project is located in the “Commercial Industrial / Retail” land use district. (Plan, § 302.4.) The district includes an expansive list of secondary uses that may be permitted within the land use district provided that the Executive Director finds that the secondary use, at the size and intensity contemplated and at the proposed location, will provide a development that is necessary or desirable for, and compatible with, the neighborhood or the community. (Plan, §§ 302, 302.4(B).) The Project was approved following the uniform procedures set forth in the Plan to approve a secondary use. (See Secondary Use Findings.) Therefore, the Project was not provided any exemptions from the standard requirements set forth in the Plan for a project seeking to develop a secondary use.

The commenter asserts that the event center component of the Project does not qualify as principal use or secondary use as nighttime entertainment, a recreation building, a public structure, or a use of a nonindustrial character. OCII disagrees.

The commenter states that OCII concluded that the event center does not constitute a principal use authorized within the “Commercial Industrial / Retail” land use district. The commenter is incorrect. As demonstrated in OCII’s secondary use findings, a number of uses of the event center qualify as principal uses. Principal uses include office use, retail sales and services, restaurants, arts activities, art spaces, and outdoor activity areas. (Secondary Use Findings, Table 1.) In addition to these principal uses, OCII’s secondary use findings demonstrate that the event center qualifies as a secondary use under four separate secondary uses authorized within the “Commercial Industrial / Retail” land use district: nighttime entertainment, recreation building, public structure, and a use of a nonindustrial character. OCII’s secondary use findings conclude that the event center is permissible as a secondary use under each of these four separate secondary use categories.

### *Nighttime Entertainment*

The commenter states that the event center does not constitute a nighttime entertainment secondary use. First, the commenter asserts that nighttime entertainment uses are intended to cover “small-scale” and “minor” uses and does not encompass larger uses such as the event center. There are no size limitations on nighttime entertainment, and, in fact, some of the illustrative categories of nighttime entertainment uses included in the Plan could be very large.

Second, the commenter alleges that the event center cannot be considered a nighttime entertainment use because the majority of events at the event center will occur during daytime hours. The commenter is incorrect that the majority of events will occur during daytime hours. As discussed in the SEIR, pp. 3-38 to 3-42, the majority of events anticipated at the Event Center would occur in the evening hours. While some events will occur during the day, many of those events would be principally permitted as Arts Activities (such as Disney on Ice). Moreover, nighttime entertainment does not prohibit daytime activities. The Nighttime Entertainment subcategory of Assembly and Entertainment uses only requires



the use be “evening-oriented.” (Plan, Attachment 5.) As discussed in the Final SEIR and OCII’s secondary use findings, because the majority of events are anticipated to occur in the evening hours, the event center is considered an evening-oriented use. (See, e.g., Secondary Use Findings, p. 5.)

Third, the commenter states that an event center is not similar to a nightclub or bar and, thus, does not qualify as a nighttime entertainment use. The Plan includes an illustrative list of uses that may constitute nighttime entertainment uses. The Plan does not limit the definition of nighttime entertainment uses. The Plan provides that nighttime entertainment includes “other similar evening-oriented entertainment activities, excluding Adult Entertainment, which require dance hall keeper police permits or place of entertainment police permits which are not limited to non-amplified live entertainment...” (Plan, Attachment 5.) As explained in OCII’s secondary use findings, the Project proposes evening-oriented entertainment activities that require a place of entertainment permit and include amplified live entertainment. Therefore, the event center component of the Project qualifies as a nighttime entertainment pursuant to the Plan.

Fourth, the commenter asserts that the event center cannot constitute an authorized nighttime entertainment use because it violates the Plan Area Map which was designed in walkable varas blocks. The Project includes amendments to the D for D, including amendments to reconfigure the on-site varas. This request does not violate the Plan. The Plan does not require that all streets identified on the Plan Area Map must be constructed. Both the Plan (Attachments 2, Plan Area Map, and Attachment 3, Redevelopment Land Use Map) and the D for D (Map 3, Plan Boundary, Development Block and street Grid Map) illustrate the Mission Bay South street grid system, but both documents provide flexibility regarding specific street alignments. The Plan Area Map included as Attachment 2 to the Plan notes that “[s]treet alignments... are indicated for illustrative purposes.” (Plan, Attachment 2.) The Plan expressly states that “changes in the existing street layout within the Plan Area . . . shall be in accordance with the objectives of this Plan.” (Plan, § 303.1.) Similarly, the D for D states: “Specific roadway locations and alignments may vary.” (D for D, Map 3.) Significantly, the D for D Design Guidelines encourage the development of publicly-accessible open space and walkways to enhance the pedestrian experience. (D for D, p. 75.) Although the Project reconfigures the varas illustrated in the Plan and D for D, it provides roughly equivalent privately-owned but publically accessible pedestrian access and open space. As demonstrated in OCII’s secondary use findings, the Project including the event center, conforms to these objectives of the Plan and D for D. (Secondary Use Findings, p. 25.)

Therefore, OCII disagrees with the commenter. As discussed in further detail within OCII’s secondary use findings, the event center constitutes nighttime entertainment use. (Secondary Use Findings, pp. 5-6.)

### ***Recreation Building***

The commenter argues that the event center cannot be considered a recreation building because “recreation” and “entertainment” are distinct uses. While the commenter does not



believe the event center should constitute “nighttime entertainment,” the commenter argues that the event center is an “entertainment” use and, thus, it is necessarily not a “recreation” use. The commenter’s opinion cannot be reconciled with the plain language of the Plan. One of the secondary use categories authorized within the “Commercial Industrial / Retail” land use district is “assembly and entertainment” uses. (Plan, § 302.4(B).) “Recreation buildings” are listed as a subset of “assembly and entertainment” secondary uses within the “Commercial Industrial / Retail” land use district. (*Ibid.*) Therefore, by definition, a “recreation building” is an “assembly and entertainment” use within the context of the Plan.

The commenter also suggests that the “recreation building” secondary use category only covers “participatory recreation uses.” The Plan includes no such limitation. OCII reviewed the Mission Bay SEIR and related materials associated with approval of the Plan. OCII disagrees that the intent, in adopting the Plan, was to narrowly limit the definition of a “recreation building” to only cover participatory recreation uses. This conclusion is consistent with the Plan’s discussion of “outdoor recreation spaces.” Specifically, the Plan demonstrates that outdoor recreation spaces are not limited to participatory recreation spaces; outdoor recreation spaces include “passive recreation spaces.” (Plan, § 104(C) [Neighborhood Environment Objective 5, Policy 6].)

Therefore, OCII disagrees with the commenter. As discussed in further detail within OCII’s secondary use findings, the event center constitutes recreation building use. (Secondary Use Findings, p. 6.)

#### *Public Structure or Use of a Nonindustrial Character*

The commenter asserts that to qualify as a secondary use under the “other uses” category, a project must constitute a public structure *and* a use of a nonindustrial character. OCII disagrees with the commenter’s interpretation of the Plan. The Plan states the “other uses” category within the “Commercial Industrial / Retail” land use district includes a “public structure *or* use of a nonindustrial character.” (Plan, § 302.4(B) (emphasis added).)

While the two uses are listed on one line in the Plan, the formatting of the listing of “other uses” was not intended to require that a project meet both definitions in order to qualify as a secondary use. This conclusion is supported by the fact that the Plan includes other examples of multiple uses being listed together on a single line. For example, principal uses within the “Commercial Industrial” and “Commercial Industrial / Retail Land Use Districts” include either a “greenhouse or plant nursery.” (Plan, §§ 302.3(A), 302.4(A).) Similarly, within the UCSF Land Use District an “elementary school or secondary school” is permitted. (Plan, §§ 302.5; see also Plan, § 303.3(A) [authorizing any of the following temporary uses: “exhibition, celebration, festival, circus or neighborhood carnival”].) A school is not required to be both an elementary school *and* a secondary school to be permitted. OCII interprets “public structure or use of a nonindustrial character” in the same manner. A use that is either a public structure or a use of a nonindustrial character may be authorized as a secondary use within the “Commercial Industrial / Retail” land use district.



However, even if a project was required to be a public structure *and* use of a nonindustrial character to qualify under the “other uses” category, OCII’s secondary use findings demonstrate that the event center is both a public structure and a use of a nonindustrial character. The commenter asserts that the event center is not “public” because the term requires the use to be under the control and management of a public agency for the benefit of its constituency. OCII disagrees. “Public structures” often include privately owned or operated buildings. For example, museums are frequently owned by private entities and the Moscone Center, while publicly-owned, is operated by a private contractor. OCII determined that the event center is a “Public Structure” because it will serve as a new, civic landmark that will host a variety of entertainment, convention, conference, cultural, and civic events.

The commenter states that the list of “proposed public improvements” included in Attachment 4 to the Plan demonstrates the “public structures” permitted as a secondary use within the “Commercial Industrial / Retail” land use district do not include uses such as the event center. The commenter is confusing “public improvements” permitted pursuant to the Plan and “public structures” authorized as secondary uses within the “Commercial Industrial / Retail” land use district. Attachment 4 to Plan lists various “public improvements” anticipated within the Plan Area. Those public improvements are not considered secondary uses within the Plan Area. Public improvements included in Attachment 4 to the Plan are authorized uses pursuant to Section 408 of the Plan. Those public improvements are separate and distinct from “public structures” that may be authorized as principal or secondary uses in a land use district.

Therefore, OCII disagrees with the commenter. As discussed in further detail within OCII’s secondary use findings, the event center constitutes both a “public structure” and a “use of a nonindustrial character,” both of which are secondary uses within the “Commercial Industrial / Retail” land use district. (Secondary Use Findings, pp. 7-8.)

The commenter states the event center is inconsistent with the Plan’s objectives and that the secondary use findings are generally inadequate. OCII disagrees. As the commenter did not identify any alleged inconsistencies other than those discussed above, OCII cannot provide a further response. However, OCII directs the commenter to the secondary use findings which provide a detailed discussion of the event center’s compatibility with Plan.

The commenter asserts that the Draft SEIR should have disclosed the Project’s inconsistencies with the Plan and that the responses to the Alliances comments concerning Plan consistency included in the Final SEIR does not address this deficiency. The commenter’s position is premised on the conclusion that the Project is inconsistent with the Plan. As discussed in the Final SEIR, OCII’s CEQA Findings, and the Secondary Use Findings, the Project is not inconsistent with the Plan.

CEQA only requires an EIR to include a discussion of an applicable plan if the project is inconsistent with the plan; it does not require a discussion of reasons a “project is consistent



with the relevant plans.” (*City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 918-19; CEQA Guidelines, § 15125, subd. (d); see also *Pfeiffer v. City of Sunnyvale City Council* (2011) 200 Cal.App.4th 1552, 1566.) Because the Project is not inconsistent with the Plan, there is no merit to the commenter’s position that the Draft SEIR should be recirculated in order to discuss inconsistencies between the Project and the Plan.

The commenter states the Project conflicts with design criteria, including vara blocks, and creates impacts on the character of the community. Please see response to Comment O-MBA18L6-1 regarding amendments to the Mission Bay South Design for Development and response to Comment O-MBA-19B3-1 regarding vara blocks and street alignments. Please see pages 32 through 34 of the Initial Study and pages 26 through 28 of OCII’s Secondary Use Findings for a discussion of the Project’s impact on the existing character of the area surrounding the project site. OCII considered whether the Project, including its secondary uses, conforms to the Plan’s redevelopment objectives and planning and design controls. OCII’s secondary use findings demonstrate that the Project is consistent with the Plan, its redevelopment objectives, and its planning and design controls.

The commenter asserts that the Project does not comply with the Plan for the reasons set forth in Mr. Lippe’s November 5, 2015, letter to the Planning Commission. See response to Comment O-MBA24L9-2.

The commenter asserts that the event center is not authorized as a principal or secondary use within the Plan. See response to Comment O-MBA19B3-1.

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### Issues Raised by Late Commenters on Planning Code Section 321

This response addresses all or part of the following comments, which are quoted below:

O-MBA24L9-1      O-MBA24L9-3      O-MBA25L10-4      O-MBA28L11-6

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**1. The Project is ineligible for any office space allocation under Planning Code section 321 and Motion 17709.**

**a. This Project does not comply with the Design for Development.**

Resolution 14702 and Motion 17709 require that any project in the Alexandria District must comply with the Mission Bay South Design for Development in order to be eligible for any office space allocation. (See Motion 17709, p. 9, Finding 9,<sup>1</sup> Finding 10<sup>2</sup>.

This Project does not comply with the Design for Development, as evidenced by the many amendments that the Successor Agency made to the Design for Development to accommodate the Project. Therefore, it is ineligible for allocation of any office space under Planning Code section 321 and Motion 17709.

**Footnotes:**

<sup>1</sup> “This schedule of phased authorization will ensure that, in accord with Resolution 14702, adequate office space can be allocated to those projects within the Development District that are determined to be in compliance with the D



- for D requirements, while also complying with Section 321 of the Planning Code forbidding exceedance of the square footage available for allocation in any given annual cycle.”
- 2 “Pursuant to Resolution 14702, the Commission is charged with determining whether a project seeking authorization conforms to applicable standards in the D for D Document, which supersedes the criteria set forth in Section 321 and other provisions of the Code except as provided in the MBS Plan. The projects previously approved were determined to have met the MBS Redevelopment Plan and the D for D Document standards and guidelines, and requirements for childcare, public art, and other provisions of the Plan Documents, and retain that design approval, along with all previously imposed conditions of approval. Future projects requesting authorization will be brought before the Commission for design review in accord with Resolution 14702, and upon determination by the Commission that such proposals are in conformity with the D for D and other applicable requirements, office space may be allocated for such new structures from the unassigned amount available in the Development District.”

*(Mission Bay Alliance, Thomas N. Lippe, letter, November 5, 2015 [O-MBA24L9-1])*

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**2. The office space allocation requested for this Project exceeds the amount authorized for the Alexandria District.**

In 1986, San Francisco voters passed Proposition M, a referendum limiting the amount of office space that can be approved each year. Codified as Section 321 of the San Francisco Planning Code, it provides that “[n]o office development may be approved during any approval period if the additional office space in that office development, when added to the additional office space in all other office developments . . . would exceed 950,000 square feet.” (San Francisco Planning Code §321(a)(1).) Office space is defined to mean “construction . . . of any structure” that has the “effect of creating additional office space.”

The current Project plans call for the construction of two office towers on Mission Bay South Parcels 29 and 31, comprising 309,436 square feet and 267,486 square feet of office space, respectively, for a total of 576,922 square feet of office space. (Executive Summary, p. 2.)

In 2008, the Planning Commission adopted Motion No. 17709. Motion 17709 approved a cumulative total office space allocation for all projects within the Alexandria Development District of 1,350,000 gross square feet. (Motion 17709, p. 9, Finding 9.) Of that amount, 1,222,980 was allocated before the adoption of Motion 17709. (Motion 17709, p. 5, Finding 4, Table 1.) Therefore, at the time Motion 17709 was proposed, 227,020 gsf of unallocated office remained for allocation. (Motion 17709, p. 9, Finding 9, Table 4.)

According to Motion 17709, there were three pending projects at that time, at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street. Motion 17709 states that these projects represented 665,880 square feet of “potential office space.” (Motion 17709, p. 5, Finding 5, Table 2.) Motion 17709 also states an intent to authorize only 57% of “potential office space” for actual office space after 10/18/09, 53% of “potential office space” for actual office space after 10/18/10, and 50% of “potential office space” for actual office space after 10/18/11.

Motion 17709 does not state how much actual office space was approved for the three pending projects at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street. The Planning Department’s Office Development Annual Limitation Program record (attached as Exhibit 3) shows “0\*” in the “size” column for these projects. (Exhibit 3, p. 19.) Assuming the Planning Commission allocated office space to these projects at the 57% ratio, that amount is 379,552 gsf (665,880 x .5). **This amount exceeds the remaining office space available for allocation at that time (i.e., 227,020 gsf).**

According to Motion 17709, there were two additional areas where the applicant indicated an intent to develop “potential office space,” namely, MB South Blocks “29 and 31” and “33-34.” (Motion 17709, p. 5, Finding 6, Table 3.) Motion 17709 states that these possible future projects represented 915,700 square feet of “potential office space,” with Blocks “29 and 31” at 515,700 GSF. (Motion 17709, p. 5, Finding 6, Table 3.)



Assuming, again, that the Planning Commission allocated office space to these areas at the 50% ratio, that amount is 457,850 GSF (915,700 x .5), with 257,850 allocated to Blocks "29 and 31" at 257,850 gsf (515,700 x .5).

The Draft Motion proposed for adoption at today's hearing states that "Blocks 29-32 are included in the Development District and have been allocated a total of 677,020 sf of office space pursuant to Motion No. 17709." (Draft Motion, p. 3.) This is incorrect in at least four ways.

First, it is unclear and unstated how Planning staff derived the 677,020 gsf number.

Second, after approval of the office space allocation for the three pending projects at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street, there was no office space left in the Alexandria District to allocate - as discussed above.

Third, even if one adds together the "potential office space" numbers for Blocks 29-32 in Motion 17709, the sum is 1,119,999 gsf, and 50% of that is only 560,000 gsf. The two office towers proposed for this Project require 576,922 gsf. (See Executive Summary, pp. 1-2: 309,436 gsf in the South tower and 267,486 gsf in the 16 Street tower). This number exceeds 560,000 gsf.

Fourth, when one adds the 25,000 gsf for office space in the arena building (see SEIR p. 3- 17), the office space for this project totals 601,922 gsf (i.e., 576,922 plus 25,000), which also exceeds 560,000 gsf.

Fifth, to the extent there was any office space left for Motion 17709 to allocate after approval of the office space allocation for the three pending projects at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street, Motion 17709 allocated only 257,850 gsf to Blocks 29 and 31 (i.e., 50% of 515,700) pursuant to Finding 6, Table 3. **The 576,922 gsf of office space in the two office towers for this Project are located in Blocks 29 and 31; and the total of 576,922 gsf vastly exceeds the 257,850 gsf that may arguably be available.**

Because the office towers called for in the Project exceed the allowable office space cap, Section 321(a)(1) and Motion 17709 require the Planning Commission to deny approval of the Project and of the requested allocations of office space. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 5, 2015 [O-MBA24L9-3]*)

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4. The Project does not comply with Proposition M, as codified at Planning Code Section 320 et seq and Planning Commission Motion 17709 , and is it is ineligible for allocation of any office space under Planning Code section 321 and Motion 17709, as discussed in my November 5, 2015, letter to the Planning Commission attached as Exhibit 1. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 6, 2015 [O-MBA25L10-4]*)

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4. The Project does not comply with Proposition M, as codified at Planning Code Section 320 et seq and Planning Commission Motion 17709 , and is it is ineligible for allocation of any office space under Planning Code section 3 21 and Motion 17709, as discussed in my November 5, 2015, letter to the Planning Commission attached as Exhibit 1. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 9, 2015 [O-MBA28L11-6]*)

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## Response to Late Comments PP-2: Planning Code Section 321

The commenter states that the two commercial office buildings that are components of the Project do not qualify for office space allocation under Section 321 of the Planning Code because OCII amended the Mission Bay South Design for Development ("Design for Development" or "D for D"). The commenter misinterprets the authority of the Planning



Commission review of the design of the office development under Section 321 and the scope of the Design for Development amendments, which primarily relate to the Event Center – not to the office development - component of the Project.

The Redevelopment Plan for the Mission Bay South Redevelopment Project (“Redevelopment Plan”) states unequivocally that it and the Design for Development “supersede the San Francisco Planning Code in its entirety, except as otherwise provided herein.” Redevelopment Plan, Section 101. Under the Redevelopment Plan, OCII has the sole discretion to amend the Design for Development so long as the amendments are consistent with “the limits, restrictions and controls established in [the Redevelopment] Plan.” Redevelopment Plan, Section 306. In a few instances, the Redevelopment Plan incorporates standards from the Planning Code into its basic land use controls, but this reliance on Planning Code standards does not change the ultimate authority of OCII over project approval.

OCII amended, by Resolution No. 71-2015 (Nov. 3, 2015), the D for D to accommodate the Event Center and found that the amendments “comply with the land use controls of the [Redevelopment] Plan and are consistent with the Plan’s redevelopment objectives.” These D for D amendments primarily address the unique characteristics of an Event Center building and made only minor changes to the specific standards and guidelines for the design of individual office buildings. The changes affecting office buildings are the designation of a fourth tower location on Blocks 29 or 31 and the addition of minimum tower separation requirements between a tower and an Event Center building. The D for D amendments, however, do not change other aspects of office development design standards, such as height, bulk, setbacks, and parking, and did not change the commercial industrial guidelines applicable to office buildings.

The Redevelopment Plan refers to specific Planning Code standards for office development and establishes, in Section 304.11, that the Redevelopment Plan’s authorization of up to 5.9 million square feet of commercial/industrial space, including office space, over the Plan’s thirty year life complies with those standards (Planning Code, §§ 320-325) so long as the annual limitation of office development is not exceeded. Furthermore, Section 304.11 provides a limited role for the Planning Commission in the review of office development to confirm that commercial office development is well-designed; it incorporates Planning Commission Resolution No. 14702 (Sep. 17, 1998), which states:

The design guidelines for the South Plan Area are set forth in the Design for Development. This Planning Commission has reviewed the design standards and guidelines and finds that such standards and guidelines will ensure quality design of any proposed office development. In addition, the Planning Commission will review any specific office development subject to the terms of Planning Code §§ 320-325 to confirm that the design of that office development consistent with the findings herein. Planning Commission Resolution No. 14702, p. 6.



Contrary to the commenter's suggestion, this standard does not limit the authority of OCII to amend the D for D or to approve a project, but rather requires the Planning Commission to determine that a particular office building is of a "quality design" consistent with the then-applicable design standards and guidelines. Any suggestion that the original version of the 1998 Design for Development is frozen in time through Planning Commission Resolution No. 14702 is inconsistent with OCII's land use authority.

Nonetheless, the Planning Commission has the opportunity, through its design review of office buildings, to consider whether the application of D for D amendments to a proposed office building results in a well-designed building. In approving the two office buildings that are part of this Project, the Planning Commission found that: "(1) the MBS D for D standards and guidelines will ensure a quality design, (2) the proposed project is consistent with the MBS D for D and the findings set forth in Commission Resolution 14702, and (3) approval of the design of the proposed project would promote the health, safety and welfare of the City." Motion No. 19502 (Nov. 5, 2015). Finally, this Planning Commission finding supersedes Motion No. 11709 (Oct. 2, 2008) to the extent that the prior motion covered office development at the Project site.

Accordingly, both OCII and the Planning Commission have determined that the office building component of the Project complies with the Design for Development.

The commenter asserts that the Planning Commission approval on November 5, 2015, of the office design for the two office towers on Mission Bay South Parcels 29 and 31, comprising a total of 576,922 square feet of office space exceeded the amount of available office space under Planning Code Section 321. The commenter is mistaken, as explained in a letter and attachments from the Planning Director, John Rahaim, to the OCII Executive Director, Tiffany Bohee, and the Director of Public Works, Mohammed Nuru, *et al.*, dated November 16, 2015.<sup>2</sup>

As explained in the letter, the Planning Commission by Motion 17709 allocated a total of 1,350,000 square feet of office space to the Alexandria Mission Bay Life Sciences and Technology Development District ("District") in 2008. The District includes all of the parcels in the GSW Event Center project. Motion 17709 authorized Alexandria to allocate the total square feet of office space to any property in the District and to transfer property to another owner with any portion of the allocated space, so long as the transfers did not exceed the total allocation granted to the District. Since 2008, Alexandria has transferred 1,100,000 square feet of the total allocation to other owners of property in the District and retained 250,000 square feet in property that it owns. Alexandria transferred the GSW Event Center project parcels (Parcels 29, 30, 31 and 32) with 677,020 square feet of the total office space allocation. The two office towers proposed on Mission Bay South Parcels 29 and 31 are less than the 677,020 square feet of office space allocated to those parcels. Sufficient office space

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<sup>2</sup> Memorandum from John Rahaim, Director, San Francisco Planning Department to Tiffany Bohee, Executive Director, Office of Community Investment and Infrastructure; Mohammed Nuru, Director, San Francisco Public Works; and Bruce Storrs, San Francisco City and County Surveyor, November 16, 2015.



exists in the previously approved District to support the Planning Commission's action, and no further allocation is needed.

The commenter also questions why 25,000 square feet of office space in the event center building was not included in the calculation of office space requiring an allocation. As explained in the letter, the arena building office space is a minor accessory use to the event center use and not a separate office component requiring an office space allocation under the Planning Code.

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### Issues Raised by Late Commenters on General Plan Consistency

This response addresses all or part of the following comments, which are quoted below:

O-MBA24L9-4      O-MBA25L10-3      O-MBA28L11-5

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#### **3. General Plan Inconsistency: BAAQMD.**

San Francisco Master Plan Policy 4.1 states:

Support and comply with objectives, policies, and air quality standards of the Bay Area Air Quality Management District.

Regionwide monitoring of air quality and enforcement of air quality standards constitute the primary means of reducing harmful emissions. The conservation of San Francisco's air resource is dependent upon the continuation and strengthening of regional controls over air polluters. San Francisco should do all that is in its power to support the Bay Area Air Quality Management district in its following operations:

- Monitoring both stationary and mobile sources of air pollution within the region and enforcing District regulations for achieving air quality standards.
- Regulating new construction that may significantly impair ambient air quality.
- Maintaining alert, permit, and violations systems.
- Developing more effective controls and method of enforcement, as necessary

The attached letter from the Bay Area Air Quality Management District (Exhibit 4) and the City's response (Exhibit 5) show that this Project does not comply with this policy. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 5, 2015 [O-MBA24L9-4]*)

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3. The Project does not comply with the San Francisco General Plan as discussed in my November 5, 2015, letter to the Planning Commission attached as Exhibit 1. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 6, 2015 [O-MBA25L10-3]*)

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3. The Project does not comply with the San Francisco General Plan as discussed in my November 5, 2015, letter to the Planning Commission attached as Exhibit 1. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 9, 2015 [O-MBA28L11-5]*)

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### Response to Late Comments PP-3: General Plan Consistency

The commenter asserts there is a project inconsistency with the San Francisco General Plan, citing Policy 4.1 which addresses support and compliance with objectives, policies, and air quality standards of the Bay Area Air Quality Management District.

First, as discussed in SEIR Chapter 4, Plans and Policies, on September 17, 1998, by Resolution No. 14702, the Planning Commission determined that the Mission Bay South Redevelopment Plan provides for a type, intensity, and location of development that is consistent with the overall goals, objectives, and policies of the *General Plan*. Therefore, the project's consistency with the Mission Bay South Redevelopment Plan would ensure that the project would not obviously or substantially conflict with *General Plan* goals, policies, or objectives. (See, e.g., *PR/JSM Rivara LLC v. Community Redevelopment Agency* (2009) 180 Cal.App.4th 1475, 1482-1483 [distinguishing between "adopting a redevelopment plan and implementing one" and stating that while "the redevelopment agency must find that the redevelopment plan conforms to the general plan, that determination is made prior to the adoption of the plan"] (original emphasis).) As discussed in Final SEIR Section 13.5.2 (Response PD-1), evidence supports the conclusion that the project is consistent with the objectives and policies set forth in the Mission Bay South Redevelopment Plan. The ultimate determination of consistency is made by the designated decision-maker, in this case, the OCII Executive Director.

Nevertheless, with respect to November 2, 2015 BAAQMD letter cited by the commenter, the commenter is referred to the Response to Late Comment AQ-1 in Section 10 of this Exhibit D. The BAAQMD's November 2, 2015 letter does not establish that the CARB cost effectiveness criteria are inappropriate for determining the offset costs under Mitigation Measure M-AQ-2b. Based on the information and analysis presented in the Draft SEIR, the Responses to Comments and supporting technical analyses, Planning Department and OCII staffs continue to believe that the offset fee established in Mitigation Measure M-AQ-2b is sufficient to achieve the required emissions offsets. In addition, as discussed in the Responses to Comments document, Mitigation Measure M-AQ-2b has been revised since publication of the Draft SEIR to allow the project sponsor to directly implement an emissions offset project as an alternative to entering into an agreement with the BAAQMD.

Accordingly, the BAAQMD letter does not result in the project not being consistent with the San Francisco Master Plan Policy 4.1 for supporting and complying with objectives, policies, and air quality standards of the BAAQMD. In addition, the BAAQMD letter does not result in the project not being consistent with supporting BAAQMD in its monitoring of air pollution sources; regulating new construction; maintaining its alert, permit and violation systems; or developing more cost effective controls and methods of enforcement. Furthermore, the letter from the BAAQMD does not alter the analysis or conclusions reached in the Final SEIR.



## Issues Raised by Late Commenters on Plan Bay Area

This response addresses all or part of the following comments, which are quoted below:

A-MTC-2

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### Plan Bay Area & Priority Development Areas

As discussed in Plan Bay Area, the Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area, prepared by MTC and the Association of Bay Area Governments (ABAG), Mission Bay is included within one of San Francisco's Priority Development Areas (PDAs). PDAs are, in short, "transit-oriented, infill development opportunity areas." (Plan Bay Area, p. 77.) The Plan Bay Area anticipates that the majority of future development within the San Francisco Bay Area, including 78 percent of new housing and 62 percent of new jobs, will occur within the region's PDAs. (Plan Bay Area, pp. 26, 57.) Development of the Project within Mission Bay is consistent with Plan Bay Area's goal to promote infill development and the creation of jobs within the region's PDAs.

To encourage more development near high-quality transit and reward jurisdictions that produce housing and jobs, Plan Bay Area proposes to target transportation investments in PDAs and to support planning efforts for transit-oriented development in PDAs. For example, in May 2012, MTC approved a new funding approach that directs specific federal funds to support more focused growth in the Bay Area. MTC committed \$320 million through 2017 (and \$14.6 billion through 2040 - the life of the plan), from federal surface transportation legislation currently known as MAP-21 (Moving Ahead for Progress in the 21st Century) towards the One Bay Area Grant (OBAG) program. (Plan Bay Area, p. 76.) The OBAG program allows communities flexibility to invest in transportation infrastructure that supports infill development by providing funding for bicycle and pedestrian improvements, local street repair, and planning activities. Within San Francisco, at least 70 percent of OBAG investments must be directed to the City's PDAs. In short, Plan Bay Area is designed to provide the transportation investments necessary to allow PDAs to accommodate the dense land use development envisioned by the Plan. (*Metropolitan Transportation Commission, Ken Kirkey, letter, October 30, 2015 [A-MTC-2]*)

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### Response to Late Comments PP-4: Plan Bay Area

The commenter indicates Mission Bay is included within one of the San Francisco Priority Development Areas (PDAs), and that development of the project within Mission Bay is consistent with the Plan Bay Area's goal to promote infill development and the creation of jobs within the region's PDAs. These comments are noted. The SEIR also acknowledges the City has designated the Mission Bay South Redevelopment Plan Area as a PDA (see SEIR Chapter 3, Project Description, page 3-10); that Plan Bay Area calls for concentrating housing and job growth around transit corridors, particularly within areas identified by local jurisdictions as PDAs (see SEIR Chapter 4, Plans and Policies, page 4-9); and that the project would not substantially conflict with, and in fact would be consistent with, Plan Bay Area (see Initial Study Section E.1, Land Use and Land Use Planning, Impact LU-2, page 31; Response to Comments Document Section 13.5, Project Description, Response PD-4, page 13.5-18; and Response to Comments Document Section 13.8, Land Use, Response LU-1, page 13.8-6).



The commenter indicates that in San Francisco, at least 70 percent of MTC's One Bay Area Grant (OBAG) program investments must be directed to the City PDAs, and as such, Plan Bay Area is designed to provide the transportation investments necessary to allow PDAs to accommodate the dense land use development envisioned by the Plan. This comment is noted. The project also proposes substantial transportation improvements within the Mission Bay South PDA as described in detail in SEIR Chapter 3, Project Description; Chapter 5.2, Transportation and Circulation; and Chapter 12, Project Refinements and New Project Variant, Section 12.2.3, Transportation Improvements. This includes, but is not limited to, a number of physical transportation infrastructure improvements adjacent to the project site, as well as transit service improvements including the expansion of the Mission Bay TMA shuttle system, provision of the Muni Special Event Transit Service Plan, and a Transportation Management Plan (TMP) for operations of the proposed project.

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## SECTION 7: RESPONSES TO LATE COMMENTS ON ARCHAEOLOGICAL RESOURCES

The comments and corresponding responses in this section cover topics analyzed in the Initial Study, Section E.4, Cultural and Paleontological Resources (included in Appendix NOP-IS of the SEIR), as augmented in RTC document Section 13.10. These include topics related to:

- Issue CULT-1: Archeological Resource

### Issues Raised by Late Commenters on Archaeological Resources

This response addresses all or part of the following comments, which are quoted below:

O-MBA22B4-8

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**c. Cultural Resources.** In response to the Alliance's references to new information regarding archaeological impacts and inadequate studies, the SEIR provides a conclusory reference to new archaeological study in October 2015 that resolves concerns. As with the other new studies provided within the 11-day review period for the SEIR Responses to Comments, the public has not had sufficient opportunity to review the technical information. Further, the Responses to Comments is insufficient as an informational document because it fails to provide analysis regarding its conclusory dismissal of archaeological concerns based on the referenced new studies. There is thus insufficient basis for findings that archaeological impacts are infeasible. (*Mission Bay Alliance, Susan Brandt-Hawley, letter, November 3, 2015 [O-MBA22B4-8]*)

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### Response to Late Comments CULT-1: Archaeological Resources

The commenter claims that Final SEIR provides a conclusory reference to the new archaeological study completed in October 2015 that resolves concerns. To the contrary, the Final SEIR Section 13.10.2, Archaeological Resources (Response CULT-1) describes that subsequent to the publication of the Draft SEIR, archaeological testing was conducted at Blocks 29-32 consistent with the requirements of the approved and adopted 1998 Mission Bay FSEIR Mitigation Measures D.3 and D.4. As required by these mitigation measures, an archaeological testing program was conducted in accord with an archaeological testing plan<sup>3</sup> by an archaeological consultant on the San Francisco Planning Department Qualified Archaeological Consultant List (QACL). The results of the archaeological testing program are reported in an *Archaeological Testing Results Report* that was approved by the City Archaeologist in October 2015. (The *Archaeological Testing Results Report* is not available for general public review, however, is on file with, and available for review by qualified individuals at, the San Francisco Planning Department, Environmental Review Division.) The archaeological testing program determined that no archaeological deposits or potential stable land surfaces available for occupation by prehistoric populations (palesols) were

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<sup>3</sup> Environmental Science Associates. *Event Center and Mixed Use Development at Mission Bay Blocks 29-32 Archaeological Testing Plan*. May 1, 2015.



identified in the archaeological testing program, confirming the finding of no potential effect to legally-significant archaeological resources by the proposed project. As such, the proposed project would not result in any new or substantially more severe impacts on archaeological resources than were analyzed and disclosed in the Mission Bay FSEIR.

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## SECTION 8: RESPONSES TO LATE COMMENTS ON TRANSPORTATION

The comments and corresponding responses in this section cover topics analyzed in SEIR Section 5.2, Transportation, as augmented in RTC document Section 13.11. These include topics related to:

- Issue TR-1: Methodology, Analysis Scenarios
- Issue TR-2: Methodology, Analysis Locations
- Issue TR-3: Methodology, Baseline Conditions
- Issue TR-4: Methodology, Trip Generation
- Issue TR-5: Methodology, Travel Modes
- Issue TR-6: Methodology, Traffic LOS
- Issue TR-7: Methodology, Transit Capacity Utilization
- Issue TR-8: Methodology, Cumulative Analysis Year and Context
- Issue TR-9: Methodology, Adequacy of Transportation Analysis
- Issue TR-10: Traffic Impacts
- Issue TR-11: Transit Impacts, BART
- Issue TR-12: Loading Impacts
- Issue TR-13: Emergency Vehicle Access Impacts
- Issue TR-14: Construction-related Transportation Impacts
- Issue TR-15: Parking
- Issue TR-16: Helipad Impacts
- Issue TR-17: Off-site Parking Mitigation

### Issues Raised by Late Commenters on Methodology, Analysis Scenarios and Trip Generation

This response addresses all or part of the following comments, which are quoted below:

A-Caltrans2-1      O-MBA20L7-20

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#### ***Reply to Response TR-2a***

Caltrans notes that the RTC Document addresses turning traffic volumes under 2015 Existing Plus Convention Event and 2015 Existing Plus Basketball Game. Yet, traffic analysis under Basketball Game Only and Convention Only Conditions are not provided. As mentioned in Caltrans' previous letter, we recommend the report include traffic turning movement per study intersection under Basketball Game Only and Convention Only Conditions separately for complete comparison review purposes. (*California Department of Transportation (Caltrans), Patricia Maurice, letter, November 2, 2015 [A-Caltrans2-1]*)

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#### **Section 13.11.3, Response TR-2a**

This section, in part, replies to our comments now labeled by the City as O- MBA10L4-15 and O- MBA10L4-17.

##### Re MBA10L4-15:

MBA10L4-15 points out that while the DSEIR evaluated the Project's transportation with implementation of a Special Events Transit Service Plan in the context of six different event



scenarios, it only evaluates the Project's transportation impacts *without* the a Special Events Transit Service Plan in the context of *only one* event scenario (without Giants game but with Basketball game). It requests the analysis *without* the a Special Events Transit Service Plan in the context of for *all six* of the event scenarios that were evaluated assuming the Special Events Transit Service Plan was in place.

There are several problems with the City's reply to this comment.

- The reply claims that the scenario of an overlapping evening game at AT&T Park with a Basketball event at the proposed Project without the Special Event Transit Services Plan taking place is a "worst-of-the-worst scenarios" that could only happen about 9 times a year, and then only if Muni were unable to deliver those services. However, with the Project located just a block from the emergency entrances to the UCSF hospitals, "worst-of-the-worst scenarios" are germane considerations for potential impacts on patient access to emergency facilities and the ordinary or special access/egress of emergency service providers.
- Despite the City's assertion that funding of Muni's Special Event Transit Services Plan is guaranteed, this funding is dependent on allocation of General Funds and discretionary transportation funds to this purpose, with such future allocations not guaranteed.
- The response also points to Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring as providing measures that could be implemented in the event Muni's Special Event Transit Services Plan is not implemented. However, many of the potential action measures in M-TR-18 are vague and conditional, and strict monitoring and enforcement is unlikely if the City through Muni has failed to deliver its promised Special Event Transit Services Plan.
- The response, although admitting no quantitative analysis of an overlapping Giants event at AT&T Park with an evening Basketball event at the Project and without implementation of the Muni Special Event Transit Services Plan was prepared, claims that the DSEIR essentially covers this situation for intersections and freeway ramps by having quantitatively analyzed the scenario of an evening Basketball Event with no Giants Event and no Special Event Transit Services Plan (Impacts TR-18 and TR-19) by virtue of having stated that these impacts would be additive to impacts in the "existing conditions without evening Giants event scenario" (Impacts TR-2 and TR-3) or to Impacts TR-11 and TR-12 (existing conditions with a Giants Event at AT&T Park). The problem with this is that the simple statement that the impacts are additive provides the public with no measure of the severity of the combined impacts.
- The response also notes that Impact TR-20 presents Muni transit impacts for the weekday evening Basketball scenario without an overlapping Giants game or implementation of the Muni Special Event Transit Services Plan and adds text stating as follows: "Impacts to the T Third and 22 Filmore [sic] would be in addition to the significant impacts identified for the proposed project with implementation of the Muni Special Event Transit Services Plan in Impact TR- 13 for conditions with an overlapping SF Giants evening game." It then concludes, "The revision does not change the analysis or conclusions presented in the SEIR." The problem with this part of the response, like that related to the impacts on intersections and freeway ramps is that the simple statement that the impacts are additive fails to inform the public of the extent of the change in severity of the impacts.
- With regard to failure to consider cumulative scenarios that lack implementation of the Muni Special Event Transit Services Plan, this failure is not remedied by addition of text to the SEIR that specify that cumulative analysis for the Basketball game scenarios include assumption of implementation of the Muni Special Event Transit Services Plan. Since the SETSP is not guaranteed funding in perpetuity and there is no assurance that Muni vehicles and personnel resources will be able to be devoted to this special service in lieu of serving regular transit needs, this change in language does not relieve the deficiency of the SEIR's failure to consider the cumulative scenario in absence of the Muni Special Event Transit Services Plan.



As a consequence of these flaws, Response TR-2a related to MBA10L4-15 is inadequate.

Re MBA10L4-17

Comment O-MBA10L4-17 is part of a stream of comment demonstrating why the DSEIR is inadequate for having unreasonably understated the amount of weekday evening arena event access travel would occur during the evening commute peak hour (see our comment now labeled O-MBA10L4-16 for related discussion). Responding to this apart from the related issues in O-MBA10L4-16 evades the compelling nature of the joint comments that the DSEIR has understated the numbers of weekday evening basketball event attendees actually traveling on the transportation system in the evening commute peak hour (5 to 6 PM).

As to the direct substance of the comment and response, the DSEIR's decision to base the analysis of weekday evening games on a presumed starting time of 7:30 was predicated on experience over 3 seasons when the Warriors were a poor to marginal team and games starting earlier in the evening (at about 6 pm) averaged only 2.5 games per season. The comment documented that based on the 2014/2015 season performance, the combined total of weeknight regular season and playoff games starting at 6 pm (the normal start time for nationally televised weeknight games played on the West Coast) could easily be 16 games per season over the next several years or beyond. The inadequacies of the SEIR reply are as follows:

- The reply notes that the 2 to 3 preseason and up to 16 postseason games - number variable - (and in actuality, though not admitted in the response, a number of regular season games as well) could have a 6pm weekday start time. It also admits that such games would worsen traffic in the weekday peak commute period from conditions reported in the SEIR (failing to admit also adversely impacting transit and also failing to quantify the increase in severity of impacts on weekday pm commute peak. It claims that these start times are driven by such factors as TV deals, other team's travel schedules and outcomes of postseason series that are beyond the abilities of the Warriors to control - although it is nonsense for the response to imply that those considerations make the Project's significant impacts in the circumstances of these earlier-start events any less significant.
- The response claims that the quality of the team will vary from year to year and claims that this will make the situation of large numbers of national telecasts that might start at 6 pm inconsistent over the time horizon considered in the SEIR. This is a speculation not consistent with precedent. Once a team has achieved an iconic status and national following (as the Warriors have done in the recent season with winning the league championship and the most valuable player award and with the shiny new venue comprised by the Project reinforcing that iconic status), the number of nationally televised weeknight games (6 pm starts) is likely to increase over the next several seasons, and to reoccur despite hiccups in individual seasons (witness the pervasive national attraction to the Lakers and Celtics despite several bad seasons, or, in another sport, Notre Dame football). Moreover, the project arena may be used for other major weekday capacity events such as the NCAA basketball tournament quarter- and semi-finals that would have start times dictated by national TV (that is, 6 pm). Hence, the response's conclusion that "it is unlikely that this scenario [a large number of nationally televised weekday games starting at 6 pm] *would occur on a regular basis during the time horizon addressed by the SEIR*" is non-factual, speculative and inconsistent with the good faith effort to disclose impact that CEQA demands.
- Finally, the response claims that "consistent with common practice in the transportation planning profession, the SEIR includes an analysis of the highest demand with the most frequent conditions for evening events ...". We agree that the 7:30 start time is probably the most frequent weekday evening start time likely to occur. But the SEIR is in error and misleading in proclaiming that it is consistent with common practice in the transportation planning profession to only study the high-demand situation that occurs most frequently. In fact, when a high demand scenario that is not the most frequently occurring but is one that occurs frequently enough to be significantly impactful, it is the common practice in the transportation planning profession to study that frequent-enough circumstance as a separate scenario on a CEQA or



other analysis. A good example of this is normal transportation planning practice with respect to major regional shopping centers. Studies are performed for an average weekday, and because shopping centers have their highest travel peaks on Saturday, for an average Saturday; these are the most frequently occurring peak conditions. But because shopping center travel has its highest peaks in the Thanksgiving to day-after-New Year holiday season and because the peaks in that approximately 38 day season occur frequently enough to be significantly impactful on their own and pose impacts of different severity than on the average weekday and average Saturday, normal transportation planning practice is to evaluate holiday shopping season weekday and Saturday impacts as separate scenarios. Another example is in the Napa Valley. There, it is the practice to evaluate a project's transportation impacts for the average weekday and average Saturday (which are the most frequently occurring impact situations) and to also evaluate impacts in the "crush" (harvest) season as a separate case as well because those impacts, occurring over a four to six week period are frequent enough and of such severity in comparison to annual averages to warrant consideration as a separate impact case.

- This matter cannot be dismissed as a disagreement among experts. A compelling argument that the SEIR should have evaluated a case scenario for weeknight capacity Basketball games starting at 6 pm is the fact that the SEIR did evaluate a scenario where there are an overlapping capacity Basketball event at the proposed Project and a Giants game at AT&T Park on a weekday evening. The SEIR claims that that type of overlapping event is likely to occur only about 9 times per year. It is obvious that, if a nine times per year occurrence rate is sufficient to require the SEIR to evaluate the Project in the context of that overlapping scenario, then the SEIR should also evaluate the weeknight 6 pm Basketball start scenario which is likely to occur more than 9 times per year in many years of operation.
- The fact that two hospital emergency entrances and the entries for emergency caregivers are located within a block of the Project site make the need for the SEIR to specifically evaluate impacts and mitigation in the 6 pm weekday event start scenario all the more compelling.

Hence, considering all of the above, the SEIR should have evaluated weekday Basketball events starting at 6 pm and is inadequate for not having done so. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-20]*)

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### Response to Late Comment TR-1: Methodology, Analysis Scenarios

In response to Caltrans' comment, Response TR-2a in the RTC document stated that Appendix TR Figures 6a and 6b present the existing plus project traffic volumes for the weekday p.m. peak hour for the Convention Event scenario, and Figures 7a and 7b present the existing plus project traffic volumes for the weekday p.m. peak hour for the Basketball Game scenario. As these figures show, the traffic volumes for the two scenarios are presented separately. The traffic impact analysis at these intersections is presented in Impact TR-4, and calculation sheets are provided in Appendix TR. While project-only volumes are not presented on separate figures, Appendix Figures 1 through 4 present the existing traffic volumes, and project volumes can be calculated by subtracting the existing plus project traffic volumes from the existing traffic volumes.

It is unclear what is meant by "Basketball Game Only and Convention Only Conditions" in the comment. Traffic analysis of only the vehicle trips generated by a basketball game or a convention without the background existing traffic volumes was not conducted, and a basketball game would be unlikely to occur on a same day as a convention event due to the



timing and logistical challenges associated with maintenance between events and modification of equipment set-up (e.g., seating configurations, floor material, and audio and visual equipment requirements) for different event types.

As described in the RTC document, only the Basketball Game scenario without an overlapping SF Giants evening game at AT&T Park was analyzed in the SEIR both without and with implementation of the Muni Special Event Transit Service Plan. The Muni Special Event Transit Service Plan is a component of the proposed project and thus is expected to occur. Even so, the purpose of analyzing conditions without the Muni Special Event Transit Service Plan was to be conservative in the assessment of transportation impacts, in the unanticipated (and unlikely) event that Muni would reduce or eliminate the proposed Muni Special Event Transit Service Plan. A benefit of such analysis was to determine the extent to which the Muni Special Event Transit Service Plan would reduce traffic impacts compared to a hypothetical scenario in which the project sponsor had not committed to such a plan as part of its proposed project. Such analysis of “project features” that have a tendency to reduce impacts is encouraged by CEQA case law, and in particular by the case *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645 (*Lotus*), which (ironically) the Mission Bay Alliance, in other contexts, has claimed that OCII has improperly ignored.

The quantitative analysis of the Basketball Game scenario with an overlapping SF Giants evening game at AT&T Park without the Muni Special Event Transit Service Plan was not included in the SEIR as it represents a worst-of-the-worst scenario, which would be expected to occur, on average, about nine times a year, and then *only* if Muni was unable to provide the additional services included in the Muni Special Event Transit Service Plan. Not every possible project condition needs to be included in the SEIR analysis. Indeed, the courts have been clear that CEQA does not require that an EIR address a “worst case” scenario. (*Napa Citizens for Honest Government v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 373, citing *Towards Responsibility in Planning v. City Council* (1988) 200 Cal.App.3d 671, 681.) Rather, consistent with good – that is, realistic – planning, lead agencies are only required to consider “reasonably anticipated future development.” (*Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1453.) Here, consistent with the *Lotus* decision, the analysis scenarios included in the SEIR provide information to the public and decision makers that traffic and Muni transit conditions would be worse without the Muni Special Event Transit Service Plan for conditions without and with an overlapping SF Giants Game at AT&T Park. The fact that OCII conducted an analysis of the Basketball Game scenario without the Muni Special Event Transit Service Plan does not mean that the scenario addressed therein is probable or likely to occur. Indeed, it is not.

As discussed in the SEIR on p. 5.2-80 and the RTC document on p. 13.11-9, it is fully anticipated that the Muni Special Event Transit Service Plan would be provided. Substantial evidence indicates it is very likely to be implemented. On November 3, 2015, the SFMTA unanimously approved a resolution (Resolution 15-154) agreeing to the Event Center Expenditure Plan for transportation capital and operating costs of providing transit, traffic enforcement, street sweeping and public safety services outside the premises are fully



funded through the life of the project. In the event that the Muni Special Event Transit Service Plan is not implemented, Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring has been identified and adopted as part of the Mitigation Monitoring and Reporting Program as a back-up strategy (see pp. MMRP-16 to MMRP-20.). Mitigation Measure M-TR-18 provides an extensive list of measures the project sponsor must implement as necessary to achieve the specific auto-mode share performance standard set forth in the measure (not more than 53 percent of private auto use for weekday events with 12,500 or more attendees; not more than 59 percent of private auto use for weekend events with 12,500 or more attendees). This measure thus provides further assurance that, during larger events, specific steps will be taken (either through the Muni Special Events Transit Service Plan, or through Mitigation Measure M-TR-18) to increase transit ridership, and to reduce reliance on private vehicles. OCII disagrees with the commenter that it is unlikely that the mitigation measure would be implemented and monitored. (See *Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018, 1036 [“[a] public agency can make reasonable assumptions based on substantial evidence about future conditions without guaranteeing that those assumptions will remain true”]; *City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 412 [court rejects attack on the use of future growth projections in an EIR, even though “[t]he accuracy of these projections must, of course, await the passage of time”]; *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 465-466 [Supreme Court upholds the conclusion that a mitigation measure requiring the lead agency to work with other local agencies to implement a parking permit program would reduce impacts to less than significant levels, even though the lead agency “cannot guarantee local governments will cooperate to implement” the program; project opponents’ speculation that local agencies would not cooperate “is not sufficient to show the agency violated CEQA by adopting this mitigation measure”]. Cf. *Berkeley Hillside Preservation v. City of Berkeley* (2015) 60 Cal.4th 1086, 1120 [under CEQA, the proper focus of analysis is the project as approved; the agency need not speculate about what will occur in the event some component of the project will fail].)

Because the Muni Special Event Transit Service Plan was incorporated into the project description, the 2040 cumulative analysis also includes analysis of events with implementation of the Muni Special Event Transit Service Plan. Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring would ensure that a reduction in private auto mode share is achieved with or without implementation of the Muni Special Event Transit Service Plan. Additional analysis of 2040 cumulative conditions is therefore not required.

As discussed in the RTC document on pp. 13.11-11 – 13.11-12, normal starting times for weekday basketball games is 7:30 p.m. Nationally televised weekday games typically feature an early game and a late game that does not deviate from the normal 7:30 p.m. start times, aside from exceptional circumstances such as playoff games. The Golden State Warriors preseason and postseason games (i.e., two to three preseason games, and up to 16 postseason games) would have variable start times, and could include start time of 6:00 p.m., which could overlap with the commute peak hour, and would worsen the weekday p.m.



peak period traffic conditions from those reported in the SEIR. The variability of preseason and postseason games' timing is due in part to TV deals, opposing team traveling schedules, and/or outcomes of postseason series that are beyond the scope of Golden State Warriors control. The two to three preseason games that could start at 6:00 p.m. would be rare and represent a minor portion of the evening events that would occur throughout the year with lower expected attendance (an average attendance of 11,000 attendees at pre-season games, versus 17,000 attendees at regular season games). If the Golden State Warriors make it to the playoffs, the number of evening events starting at 6:00 p.m. could increase; however, given the normal NBA cycles by which teams typically rise and fall in the standings over time as player lineups change, it is unlikely that this scenario would occur on a regular basis during the time horizon addressed in the SEIR. The comment that the Golden State Warriors' recent achievements and "iconic status" will result in more nationally televised weekday home games at 6:00 pm, even if the team's success does not continue, is speculative and not based on evidence. As noted above, even nationally televised weekday home games typically begin at 7:30 p.m. Further, notwithstanding their recent success, other than games played on holidays or playoffs games played in the Western Conference Finals or the NBA Finals, the Golden State Warriors have not played any weekday home games starting at 6:00 p.m. during any of the last three seasons, and no such games are scheduled for the current season. Despite the on-court recent success of the Golden State Warriors, the project is expected to remain in place for many decades into the future, and the environmental review for the project should reflect that reality. During the life of the project, it is very likely that the fortunes of the team will rise and fall, as the fortunes of other teams within the National Basketball Association improve and as the Golden State Warriors' players or coaching staff (or those of their opponents) change over time. The experience of the Los Angeles Lakers — a team that few would dispute is "iconic" in terms of its historic accomplishments — provides evidence of such ebbs and flows in the fortunes of a generally successful sports organization. That team has had losing seasons in recent years despite the past triumphs of earlier teams with superstar players such as Wilt Chamberlain, Kareem Abdul Jabbar, Magic Johnson, and Shaquille O'Neal.

An analysis of conditions with an overlapping SF Giants evening game at AT&T Park and the potential transportation impacts associated with such overlapping events were included due to the proximity of the event center to AT&T Park, not because of the expected number of annual overlapping events. Thus, the number of overlapping events is not considered a threshold for determining the scenarios that should be analyzed.

See Response to Late Comment TR-13 below regarding emergency vehicle access. Emergency vehicles are not subject to intersection delays, and analysis of an earlier start time would not change the conclusions related to emergency vehicle access impacts in the SEIR.



## Issues Raised by Late Commenters on Methodology, Analysis Locations

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-21      O-MBA20L7-32

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### Section 13.11.3, Response TR-2b

This section purports to respond to our comments now labeled by the City as O-MBA10L4-2, O-MBA10L4-20, O-MBA10L4-39A and those of Caltrans (A-Caltrans-5) and others. These comments concern the SEIR's lack of analysis at intersections and freeway ramps that are on obvious approach and/or departure routes to/from and that are obviously or potentially capacity-challenged already.

The response begins by reciting the 6 freeway ramps and their related surface street intersections where analysis was conducted, a point not at issue in the comment. The key point of the comment is the locations the SEIR failed to analyze, not the places it did so. The reply continues, adding that the depth and approach is similar to other studies of completed and ongoing major project studies in San Francisco, and noting that the 1998 Mission Bay FSEIR did not address freeway ramp operations and queuing at all. However, what other studies did or didn't do is immaterial. What is material is what this SEIR should have studied but failed to do, and the response attempts to evade this.

The response continues for two paragraphs describing the configurations and conditions at the I 280 Mariposa off-ramp - one of the locations the SEIR did study. This section, not related to the issue of the ramps and ramp intersections that the SEIR should have but failed to study, concludes by observing that the LOS F conditions on the off ramp in the evening peak hour would be cured by Mitigation Measure M-TR-11c involving stationing a PCO at the ramp terminus intersection and waving traffic turning right to Mariposa eastbound through the traffic signal at the end of the off-ramp. But that conclusion is completely speculative. This commenter was a long term Giants season ticket holder at AT&T Park and this particular off ramp was on my normal route to the Park. The problem there is not that the signal causes queues to back up the ramp and onto the freeway mainline. It is that once a driver reaches the end of the ramp and has a green light, there is often no place to turn to on Mariposa because eastbound traffic is queued all the way back from Third Street. So placing a PCO there will be largely useless.

The response then discusses the I-80 westbound off-ramp to Fifth Street, and concludes that mitigation measure M-TR-2b, vague measures of unquantifiable effect to encourage travel by non-automotive modes would reduce the Project's impacts at this location. Again, this discussion of a location the SEIR did study is irrelevant to the issue that the SEIR should have but failed to study other locations - unless the implicit message is that, had it done so and discovered impacts, it would have just proposed vague, unquantifiable and ineffectual mitigations and declared the impacts mitigated.

Finally, after four lengthy paragraphs of largely irrelevant matter, the reply turns to the subject of the intersections and ramps that should have been studied and were not. The response notes that under CEQA Guidelines § 15130, defining the location or locations for study "*is within the lead agency's reasonable discretion*" and fundamentally claims that in defining what intersections and ramps were analyzed in this SEIR the City has exercised reasonable discretion. However, this assertion is undermined by content in the comments demonstrating that by prior and ongoing studies in the general area and by common observation, the City knew or should have known that certain intersections and ramps in the SOMA and Mission Bay area that are on logical access and egress routes to the Project site are capacity challenged and are likely to be adversely impacted by the Project, yet it did not study them in the SEIR. Hence, rather than exercising "*reasonable discretion*" as required by CEQA Guidelines, the City, in failing to study these locations, abused its discretion and failed to undertake the good faith effort to disclose impact demanded by CEQA.

That the City has failed to exercise reasonable discretion in this matter is reinforced by two considerations.



- Two UCSF hospitals are located a block from the Project site. Many of the intersections and ramps on logical access/egress routes to/from the Project that, at the City's discretion, the SEIR failed to analyze are on the advised emergency access routes from various points in the City and region to the hospitals and are posted on the UCSF web site. In excluding these intersections and ramps, the City clearly ignored public safety impacts of that decision.
- The State of California Department of Transportation (Caltrans) has commented on the DSEIR as follows. "Project-related queuing impacts on nearby State facilities should be analyzed" (see comment now labeled in SEIR A-Caltrans-5). Caltrans clearly believes the DSEIR has not assessed impacts on a sufficient number of freeway mainline, ramps and ramp intersections that are likely to be impacted by the Project. Caltrans opinion is due the same deference in this matter as that of the City.

The City's response continues, attempting to explain why individual or groups of intersections and ramps were excluded from study in the DSEIR. For example, the response cites 9 intersections along the Embarcadero and 15 along or east of Fourth Street that we claimed should have been studied. It claims that because the Project is shifted to its current location farther south-west from the originally proposed location on Piers 30-32, the primary routes to and from the Project site from Downtown, SOMA, the northern parts of the City and from the North Bay and the I-80 ramps would be shifted farther west, away from these intersections. But this is not true. Except for the relatively few instances in which there is a concurrent evening Giants game at AT&T park, the routes along the Embarcadero and along and east of Fourth Street remain the most effective and imageable [sic] routes to the currently proposed Project site and the parking facilities that serve it from much of the Downtown, SOMA, northern parts of the City, the North Bay and the I-80 ramps to and from the East Bay. Those paths are only likely to be altered on evenings with a concurrent Giants game. And if a massive shift of traffic further west was assumed in the City's thinking as it scoped the current SEIR and excluded the intersections along the Embarcadero and on and east of Fourth on that assumption, why didn't it add more intersections in the Eighth Street corridor (including but not limited to the ramps and intersections at Eighth and Harrison, Eighth and Bryant) and other intersections in the Van Ness, Franklin, Gough, Octavia corridors for example? The City has no good answer.

The response also claims that traffic passing through the Embarcadero intersections and the intersections along and east of Fourth would be less significant because a survey of baseball attendees at AT&T park suggested that many attendees who worked Downtown or in SOMA and drove to work left their cars at their commute parking locations and walked, used transit or took cabs to and from the ballpark. This type of data is of course irrelevant because those considerations should have already been taken into account in the SEIR's assumptions about mode split to the park from those districts. Moreover, this type behavior is likely to become increasingly uncommon as surface parking in those districts disappears and is replaced by parking garages that tend to close earlier than parkers could travel back to them at the conclusion of ballpark or arena events.

The response also cites new study of a single intersection, that of Eighth and Bryant as exemplar of why additional study intersections are not justified. This intersection is an anomalously complex intersection, and the effects of its complexities on traffic operations are difficult to replicate in theoretical delay/level of service calculations. Part of the complexity is that Eighth Street, which is one-way southbound north of Brannan becomes two-way south of Brannan. The complexity is compounded because columns that support I-80 as it crosses above Eighth between Bryant and Brannan are located in the center of Eighth Street and force southbound drivers that want to turn left at Brannan or go through or right there to pick the correct lane before departing the heavily congested intersection of Eighth and Bryant. Moreover, from this point of choice, drivers' views of what choices they must make before moving along Eighth toward Brannan are obscured by the columns and I-80 structure. In general, calculations of LOS at one location are poor predictors of delay/LOS conditions somewhere else. Moreover, in this case, the unique geometrics of the subject intersection and their unusual effects on driver behavior make the outcome of theoretical delay/LOS calculations anomalous rather than exemplar of anything elsewhere.



The City's response is clearly grasping straws to avoid analyzing the full array of intersections and ramps that, in a good faith effort to disclose impact, the SEIR should have evaluated. The City's response to the subject comment set is inadequate, and in continuing to evade analysis of potentially adversely affected freeway segments, intersections and ramps, the SEIR is defective and unsuited for certification. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-21]*)

**OPINION 1 - The DSEIR's Transportation and Circulation analysis does not adequately analyze the entirety of the study area impacted by the development**

**OPINION 2 - The DSEIR's Transportation and Circulation analysis does not analyze impacted study intersections and ramps in the SoMa and North Mission Bay areas, most notably those between Market Street and King Street**

I maintain the opinion that the study area should be expanded beyond those assumed within the SEIR to the SoMa area to incorporate relevant travel patterns which would exist for both the proposed project and the "the previous proposed arena site as described within the memorandum report titled "Travel and Parking Demand Estimates for the Proposed Event Center and Mixed Use Development at Piers 30-32 and Seawall Lot 330" which was dated August 9, 2013.

The RTC states that my comment:

*"...noted that because some of the basketball game attendees would be arriving from the San Francisco downtown and Financial District areas, they would be required to pass through SoMa to arrive at the project site, so that additional intersections in the SoMa area would have to be evaluated. Mode of travel and place of origin surveys of baseball game attendees conducted by the SF Giants, as well as available parking occupancy surveys, suggest that many of those game attendees that drove to work at their jobs in the Financial District and SoMa areas, tend to walk, ride transit, or take a taxi to AT&T Park, leaving their cars at their commuter parking locations in order to avoid the evening commute congestion that typically occurs near I-80 and AT&T Park and having to re-park their cars at game-day rates. It is likely that a similar condition would occur with the proposed project, with many of those working in downtown riding Muni or special event shuttles, and taking taxis or TNC vehicles, such as Uber or Lyft to the event center, rather than driving and having to park again with limited space availability."*

The SEIR itself, as noted within Table 1 of my original comment letter (provided below) identified several corridors to/from the SoMa neighborhood with substantial trip percentages up to 32% of project traffic.

**Table 1  
Project Vehicle Trip Patterns to Major Parking Facilities North Mission Bay & South SoMa**

Figure	Page	Figure Title	Trip Assignment Along Roadway			
			Seventh St s/o Townsend St	Fourth St s/o Townsend St	King St e/o Third St	from WB I-80 to Fifth St
5.2-14A	5.2-95	Project Vehicle Trip Patterns to Major Parking Facilities - Inbound Weekday PM Peak Hour - No Event and Convention Event	18% / 22%	7% / 7%	5% / 11%	8% / 7%
5.2-14B	5.2-96	Project Vehicle Trip Patterns to Major Parking Facilities - Outbound Weekday PM Peak Hour - No Event and Convention Event	19% / 19%	7% / 12%	5% / 5%	8% / 8%
5.2-14C	5.2-97	Project Vehicle Trip Patterns to Major Parking Facilities - Inbound Saturday Evening Peak Hour - No Event	20%	8%	5%	9%
5.2-14D	5.2-98	Project Vehicle Trip Patterns to Major Parking Facilities - Outbound Saturday Evening Peak Hour - No Event	20%	8%	5%	7%
5.2-14E	5.2-99	Project Vehicle Trip Patterns to Major Parking Facilities - Inbound Weekday and Saturday Peak Hours - Basketball Game Without a SF Giants Evening Game	31% / 32%	13% / 13%	9% / 11%	29% / 30%
5.2-14F	5.2-100	Project Vehicle Trip Patterns to Major Parking Facilities - Outbound Weekday Late Evening Peak Hour - Basketball Game Without a SF Giants Evening Game	31%	13%	11%	20%

Source: "Event Center and Mixed Use Development at Mission Bay Blocks 29-32" DSEIR (June 5, 2015)



It is not reasonable to discount the trips clearly represented by these trip pattern percentages established within the SEIR as irrelevant or unworthy of analysis because they may not be entirely comprised of trips within personal vehicles of those traveling through the SoMa area from the financial district. Even if attendees utilize alternate transportation such as taxis, Uber or Lyft, they will still be new trips added to the roadways which will potentially significantly impact intersections north of the area studied.

The RTC also states:

*“The previously proposed center at Piers 30-32 was located at the intersection of The Embarcadero and Bryant Street, with very different access patterns compared to the proposed project.”*

While true, generally the same level of traffic will be generated by both alternatives, and trips originating from the financial district would still be required to travel through the SoMa area. While admittedly traveling along some different arterials through the SoMa district, the previous analysis considered intersections within SoMa whereas the SEIR does not.

Please feel free to give me a call if you have any questions. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-32]*)

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## Response to Late Comment TR-2: Methodology, Analysis Locations

The approach in selecting study intersections is described in the SEIR on p. 5.2-7 and the RTC document on pp. 13.11-26 – 13.11-27, and is consistent with the *SF Guidelines*, which states that the study area is generally within a radius of two blocks and 0.25 miles from the project, but a larger area may be determined in the scoping process. For the proposed project, 15 of the 21 study intersections are within a 0.5 mile radius of the project site, and six are between 0.5 and one mile radius of the site. As discussed in the RTC document on pp. 13.11-26 – 13.11-27, the transportation analysis in the SEIR appropriately includes intersections and freeway ramps in the project vicinity and along approach and departure routes most likely to be affected by project-generated vehicle trips. The intersections and freeway ramps analyzed in the SEIR were chosen because they represent the primary gateways that define access for the southern portion of Mission Bay: Third, Fourth, Seventh, 16th, and Mariposa Streets. Beyond these gateways, traffic is broadly dispersed throughout the SoMa street grid, which provides multiple routes for travel to any given destination. Beyond the Mission Bay gateways, traffic analysis was focused on key locations that align with direct access routes to and from these gateways. The suggested list of analysis locations supplied by the commenter includes locations considered far removed from the project site and less likely to be used by those traveling to and from the site, and where the magnitude of traffic and impacts, if any, are likely to be more dispersed.

The commenter disagrees with the response regarding the operations of the I-280 northbound off-ramp at Mariposa Street, based on the past experience of the commenter at this off-ramp prior to games at AT&T Park. As explained on SEIR pp. 5.2-6 – 5.2-7, the I-280 northbound off-ramp will soon be expanded as part of the Mission Bay Area South Infrastructure Plan from the existing two lanes to a planned three-lane configuration at the approach to Mariposa Street. In addition, as described in the SEIR, a number of roadway improvements are being implemented as part of the opening of Phase One of the UCSF



Medical Center at Mission Bay that would improve conditions from those experienced by the commenter. For example, Owens Street is being extended between 16th and Mariposa Street, to connect with the I-280 on-ramp and off-ramp and to create a new signalized intersection at Mariposa Street. Mariposa Street is being widened on the north side, and it will become a five lane facility with two travel lanes each way and exclusive left turn lanes provided at most intersections. The SEIR does not state that the positioning of a PCO would cure the LOS F conditions at this ramp, but instead explains that with implementation of Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events, a PCO would minimize the severity of the traffic impacts. Considering the ramp and local roadway network improvements, it is reasonable to assume that stationing a PCO to facilitate right-turns from the freeway off-ramp onto Mariposa Street would improve ramp LOS.

The RTC document addressed the concerns raised regarding the I-80 westbound off-ramp at the intersection of Fifth/Harrison. Specifically, the I-80 westbound off-ramp at Fifth/Harrison also has multiple lanes at the approach to Fifth and Harrison Streets. There are about 1,600 feet between the Fifth/Harrison intersection and the I-80 westbound mainline, with two travel lanes for approximately 88 percent (1,400 feet) of this distance. Given the length and configuration of the Fifth/Harrison off-ramp with two dedicated lanes, it is expected that the project-generated vehicles during the evening peak hour would be accommodated at the off-ramp without affecting mainline operations. It is accurate to state that a decrease in vehicle trips generated by the project as a result of implementing Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts would reduce traffic impacts associated with the project. Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts is not speculative; it specifies a variety of adaptive TDM strategies to reduce traffic congestion in the project vicinity by providing drivers with information on traffic conditions and alternative routes, providing information on on-street and off-street parking conditions, discouraging use of on-street parking through the Residential Permit Parking program, encouraging the use of non-auto modes through parking pricing, and enhancing regional transit access to the area.

The commenter disagrees with the inclusion of the intersection of Eighth/Brannan in the RTC document due to its non-standard travel lane configuration. This intersection was included as representative because it would have higher concentrated volumes of project-related inbound traffic. While its travel lane configuration is somewhat unusual, so are others in its vicinity due to the presence of supporting infrastructure required by the elevated U.S. 101 and I-80 freeways. The lane configuration and striping on all approaches at the intersection of Eighth/Brannan, including those located under the freeways, meet applicable design codes such as the California Manual of Uniform Traffic Control Devices (CA MUTCD). The lane configuration on the southbound approach, perhaps the most unusual, is identified in advance to approaching motorists by appropriate signage. Furthermore, the intersection has not been identified by SFMTA as being a problematic or dangerous intersection. In summary, the evaluation of this intersection by means of the



Highway Capacity Manual methodology is not only not “anomalous” but also meets all the requirements and objectives identified in the original response.

The commenter concludes that the study locations are inadequate because of the proximity of the UCSF facilities and comments by Caltrans. The commenter is incorrect because:

- The SEIR analyzed intersections in the immediate vicinity of the UCSF facilities, and the analysis intersections were reviewed with UCSF. Analysis of additional intersections further afield from the project site and UCSF would not change the conclusions of the emergency vehicle access impact assessment. Also see Response TR-13 below.
- The November 2, 2015 letter from Caltrans on the RTC document did not include any concerns regarding the need for additional analysis locations at or in the vicinity of I-280 or I-80. Therefore, the Caltrans letter does not support the commenter’s position.

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### Issues Raised by Late Commenters on Methodology, Baseline Conditions

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-22

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#### Section 13.11.3, Response TR-2c

Response TR-2c replies to our comments O-MBA10L4-21 and -22, and those of others that the DSEIR understates transit and traffic impacts because it is based on outdated traffic and transit data unrepresentative of existing conditions at the time of filing the Notice of Preparation (NOP) for the SEIR.

The initial point in the response in Response TR-2c is to deny that the baseline data relied upon in the DSEIR was stale, and to claim that the City and its consultants took steps to assure that they relied upon data as up-to-date as feasible. This assertion is factually untrue.

Here we briefly review the facts of the situation, first with regard to transit data.

- The NOP for the Project was circulated on November 19, 2014.
- The data document relied on in the DSEIR transit impact analysis for Muni operations in the City states that this data was collected in the fall of 2010 and at some time in 2011.
- The data relied upon for services in the regional transit corridors serving the City was drawn from a SFMTA TEP project published in October 2012. Obviously, the regional transit corridor data published in that study reflects observations some time before October, 2012.
- Since those times of data collection, there have been a large number of development projects completed and occupied in the C-3, SOMA and Mission Bay and yet others were approved and under construction. In addition, the recovering economy has added considerable numbers of riders to the local and regional transit systems.

Clearly the transit data relied upon in the DSEIR was stale at the time the analysis was performed and this should have been obvious to the City and its consultants. Moreover, contrary to the claim in Response TR-2c that the City and its consultants took steps to assure that they relied upon data as



up-to-date as feasible, new information released as part of Response TR-2c makes obvious that this is not the case.

- Several weeks before the DSEIR was circulated, the City issued updated summarizations of Muni patronage data and regional transit service data.
- Several weeks before the DSEIR was circulated, the City had BART patronage data that was very current – actually through April, 2015.

Yet the City did not update the transit analysis in light of this data before circulating the DSEIR or even acknowledge the existence of newer data in any way in that document. This is improper.

Response TR-26 does not present in full the new transit data set, the San Francisco Planning Department Memorandum Transit Data for Transportation Impact Studies dated May 15, 2015. Instead it presents a composite table compiled from the information in the cited memorandum (Table 5.2-43) sourced to Advant Consulting/Fehr & Peers/LCW Consulting and dated 2015. This composite table omits key data from the actual May 15, 2015 San Francisco Planning Department Memorandum (a copy of which is appended hereto as Exhibit 1) that indicate the data reflected therein were collected in 2013 for Muni operations and in 2012 for regional transit operations. This raises two key issues:

- Although the revised analysis presented in Response TR-2c is based on newer data, that data is also stale.
- In omitting, in the summary table published in Response TR-2c, the notations indicating the dates on which the newer data was collected, the response either deliberately or inadvertently misleads the public to believe the analysis in the response is based on current 2015 data, which it is not.

Although Response TR-2c mentions having BART's April, 2015 ridership data and claims to have relied on it, there is no evidence in the response of how and where the SEIR made use of it in any way. Although the City has placed the raw BART of April ridership data, ascribed to a May 1, 2015 submission by Val Menotti, Bart Chief Planning & Development Officer, on the SEIR web site, the transmittal narrative is not presented nor is its translation into the regional screenline format relied on in the SEIR. We hereby demand that the conversion of the subject BART ridership data release be provided to the Mission Bay Alliance and its consultants in the format of the regional screenline analysis of the SEIR and that the period of comment be extended beyond the date of its provision to allow adequate time for review and comment on its implications. We also note that BART's own letter of comment on the DSEIR (now Comment A-BART) in its second paragraph of comment (a paragraph the SEIR ignores rather than enumerating for response (see SEIR page COM-19) notes as follows: "Given strong job expansion in San Francisco, BART has experienced unprecedented ridership growth (~25% over the last four years) which creates a number of peak period capacity challenges." This statement clearly demonstrates that any reliance on regional transit data as old as 2012 (which the SEIR continues to rely on) is an inaccurate portrayal of the background conditions on which the Project imposes impacts. Response TR-2c claims to have used the April, 2015 BART data

Response TR-2c presents a reassessment of impacts on the 22 – Fillmore and the T-Third lines based on the purportedly 'new' baseline data set and finds that deficiencies on these lines are not Project impacts because the Project's contribution to ridership does not exceed 5 percent of total ridership at the maximum load points. However, this finding of lacking a ridership contribution in excess of 5 percent at the maximum load point comes about only because of the failure to consider the scenario of weekday Basketball event starts at 6 pm and the SEIR's illogical refusal to consider that there is an offset between the time attendees pass through the arena turnstiles and the time those attendees are traveling on and impacting the transportation system (see our comments O-MBA10L4-17, O-MBA10L4-7, O-MBA10L4-16 and our comments herein with respect to Response to Comments TR- 2a and TR-2d. Had either or both the 6 pm game start scenario and the proper offset between arena turnstile passage time and time traveling on the transportation system been considered, there



would be much more Project travel on the subject lines during the pm peak commute hour (5-6 pm) than is considered in the SEIR and significant impacts on these lines would be disclosed.

Response TR-2c claims that use of the updated transit data does not result in any changes to impact determination for Muni transit presented in Impact TR-4. This conclusion is incorrect and misleading because the analysis was not performed on adequately updated (still stale) transit ridership data and because it was performed without considering reasonable Project contributions to evening commute peak hour transit ridership (because of failure to consider a 6 pm game start scenario and failure to consider the offset between time riding transit and time passing through arena turnstiles for the 7:30 game start scenario).

Response TR-2c also opines that, since ridership figures for the 22 Fillmore and T Third routes were obtained from SFMTA and reflect City's plans for changing the 22-Fillmore and completing the Central Subway by year 2020, the SEIR analysis for these lines accounts for development that occurred and is probable to occur through 2020. However, we note that the planning studies for those transit service changes on those lines were performed several years ago and the SEIR presents no clear evidence whether or not the SFMTA projections for those transit projects reasonably reflects the development boom that has occurred in the C-3, SOMA and Mission Bay in the intervening years and whether or not job infill in existing development due to a revitalized economy was reflected.

A final section of Response TR-2c attempts legalistic evasion of the issue of stale existing conditions data. This section starts by stating: *"Overall the transit impact analysis presents a reasonable representation of transit conditions based on available data for the Muni and regional transit providers and additional analysis is not required. Nor have commenters identified any flaws in the analysis that built upon the transit impact analysis."* This statement is contrary to fact. Four year old data collected at a time when the job and development economy was just starting to begin recovering from a period of stagnation and decline is clearly not representative of conditions after four subsequent years of aggressive development and job boom. And for our part, in our comment letter of July 26, 2015 comprises 27 pages identifying flaws in the analysis that are compounded by the flawed and outdated transit data base assumed as "existing" conditions in the DSEIR. The response goes on to state: *"Although a somewhat different, and yet technically plausible, approach might have been possible, the City's approach is abundantly supported by substantial evidence and represents a reasonable exercise of technical judgment. In general, a lead agency's determination regarding how 'existing physical conditions without the project' could 'most reasonable be measured' is 'quintessentially a discretionary determination'."* This statement misrepresents the issue in order to bend the framing of it to fit legal case precedents which are then cited in the response. However, this is absolutely not a technical disagreement about how to go about collecting or reasonably measuring existing transit conditions data. The issue is that the old transit data the City had on hand is simply not representative of the transit conditions that existed in late November, 2014 when the NOP was circulated.

With regard to the issue of stale traffic data (Comment O-MBAL4-21), Response TR- 2c reiterates that the DSEIR adjusted the original counts to account for the opening of the UCSF Medical Center Phase 1 and the Public Safety Building that were nearing completion after the traffic counts were taken. This adjustment for those buildings was acknowledged in our comment O-MBAL4-21 and is not a matter of question. Response TR-2c goes on to state that subsequent traffic counts taken at three intersections in April 2015 confirm that the adjustments to the earlier traffic counts reasonably reflect the added traffic associated with the newly opened facilities cited above. This point is also not challenged in our comment, at least with respect to the three particular intersections counted. However, Response TR-2c then concludes: *"Because the adjusted volumes used in the analysis were similar to or higher than those collected in the field in April 2015, it can reasonably be inferred [emphasis added] that the traffic volumes used in the existing and existing plus project analyses also adequately reflect any changes that may be associated with newly completed projects further afield (e.g., in SoMa)."* The idea that this conclusion can reasonably be inferred is utter nonsense. The DSEIR made no attempt to quantify what projects in northern Mission Bay, SOMA and the C-3 were completed after 2013 or nearing completion by early 2015, how much traffic they would generate



and where most of that traffic would go and what study intersections it would affect. The intersections that were counted in April 2015 (Third with Sixteenth, Fourth with Sixteenth and Fourth with Mariposa) are indeed “far afield”, being well to the southeast from new developments in northern Mission Bay, the SOMA and C-3 and are unlikely to be affected much by developments in those areas<sup>1</sup>. But other intersections in the Project’s scope of study are much closer to those development areas and are likely to be considerably more affected by traffic generated by the uncounted developments there as well as increased traffic to/from those areas due to job growth within existing uses due to the improved economy. The April 2015 counts do nothing more than show the SEIR traffic adjustments for UCSF Medical Center Phase 1 and for the Public Safety Building came reasonably close to getting it right for those particular facilities and those particular intersections. They carry no inference for other new development and for other study intersections farther afield.

Because of these considerations, Response TR-2c is inadequate and the comment that the SEIR traffic baseline is stale remains unrefuted.

**Footnote:**

<sup>1</sup> This is because traffic from northern Mission Bay, the SOMA and C-3 would likely take other routes journeying to and from the southeast that would not pass through the 3 intersections counted in April 2015.

*(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-22])*

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## Response to Late Comment TR-3: Methodology, Baseline Conditions

### *Transit*

Muni ridership used for the downtown screenline analysis was obtained from the SFMTA and represents the most current data that is available from the agency. More current information for 2014 conditions is not available from the SFMTA. The use of year 2020 ridership data for the 22 Fillmore and Central Subway reflects the best available data used by the SFMTA to plan for projected ridership for the Central Subway project.

As indicated in the SEIR and RTC document, the BART analysis included in the SEIR was based on the April 2015 data provided by BART. Table 5.2-4 in the SEIR presenting existing conditions reflects the April 2015 BART ridership and capacity at the East Bay and South Bay cordons. These ridership and capacity were used in the existing plus project analyses.

Response TR-2c in the RTC document does not present a reassessment of the impact on the 22 Fillmore bus route and the T Third light rail line. The updated downtown screenline analysis, using information from the San Francisco Planning Department’s May 2015 memorandum, is for the weekday p.m. peak hour conditions only for the four screenlines and corridors for the outbound direction from downtown (and from the project site). The project’s contributions to the two corridors operating at more than the 85 percent capacity utilization standard would be minimal, and would not result in significant transit impacts during the weekday p.m. peak hour on the downtown screenlines. Analysis of a 6:00 p.m. start time for an evening event at the event center is not relevant to the downtown screenlines, because the downtown screenline analysis is in the outbound direction from downtown, while during an evening event, the predominant direction of travel is inbound towards the project site. The capacity utilization at the maximum load point in the inbound direction for the routes in the



downtown screenlines is generally lower, as it represents the non-peak direction of travel. The Muni downtown screenline analysis was conducted for the No Event and the Convention Event scenarios because these two scenarios would generate more outbound transit trips during the weekday p.m. peak hour than the Basketball Game scenario.

### *Traffic*

As stated on SEIR p. 5.2-8, the existing conditions used for the traffic impact analysis are based on traffic counts conducted in 2013 and 2014, which were adjusted to reflect full occupancy and operation of the UCSF Medical Center Phase 1 and Public Safety Building projects which were under construction when the traffic counts were conducted, and which would increase traffic volumes at the study intersections. In April 2015, additional weekday p.m., evening and late evening counts were conducted at key intersections (i.e., Third/16th, Fourth/16th, and Fourth/Mariposa) and compared to the adjusted traffic volumes to confirm that the adjustments to the traffic volumes accurately reflected traffic volumes and patterns associated with the newly opened facilities. Because the adjusted volumes used in the analysis, and on which impact assessments were based, were similar to or higher than those collected in the field in April 2015.

Nevertheless, this commenter speculates that this validation is not adequate because what was true at these intersections might not be true for other intersections, presumably at locations farther away from the project site. The commenter does not identify which intersections or how many intersections would need additional traffic volume counts to validate that the traffic volumes used in the SEIR analysis are not “stale.” The commenter does not identify projects in northern Mission Bay, SoMa and C-3 that were completed between the time when the traffic counts were conducted in June 2013 and January 2014 and in November 2014 when the Notice of Preparation was issued that would have the potential to substantially change the traffic volumes or conditions at the study intersections. The underlying traffic analysis included intersections along King and Channel Streets, at the Fifth Street ramps, and the intersection of Third/Cesar because, as direct routes leading to or from key Mission Bay gateways, traffic in these locations would be more likely to be affected by the project than locations where traffic would become dispersed throughout the San Francisco street network farther to the north and west. A limited number of newly-constructed projects have opened between the latter part of 2013 and through 2014 in SoMa and C-3 that would be sufficiently near the project site to affect traffic. Any traffic effects from projects farther to the north and west would be dispersed throughout the SoMa grid.<sup>1</sup> For these reasons, it can reasonably be inferred that the traffic volumes used in the existing and existing plus project analyses are not “stale” and adequately reflect baseline conditions without additional traffic volume counts at more remote locations.

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<sup>1</sup> City staff performed a permit search for projects completed between November 2013 to June 4, 2015, within the area bounded by Folsom Street, The Embarcadero, King Street, and Ninth Street. Developments that were completed during that time period included approximately 110 new residential units.



## Issues Raised by Late Commenters on Methodology, Trip Generation

This response addresses all or part of the following comments, which are quoted below:

A-Caltrans2-2      O-MBA20L7-23

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### **Reply to Response TR-2d**

Caltrans notes that the RTC Document justifies lower traffic volumes under Basketball Game Conditions in Figure 15a than No Event Conditions in Figure 13a (SEIR, Appendix TR, pgs. TR-156, TR-152). The RTC Document states that the likely arrival of the basketball attendees would be one hour prior to the game. Peak hour traffic volumes under 2040 Cumulative Conditions is assumed during 4pm-6pm. The Document estimates cumulative arrival attendees is five percent during the 4pm-6pm. Thus, the underlying assumptions and methodology may continuously lead to inconsistent traffic patterns of five study intersections (Study Intersections #9 to #13) that surround the project site between Figure 15a and Figure 13a. For a conservative approach that resolves irregular traffic concerns expressed in our previous letter, Caltrans recommends the report include peak volume 2040 Cumulative Conditions during 6:30 to 7:30 pm as a worse scenario. The worse one-peak-hour cumulative arrival attendees during 6:30 to 7:30 would be 52% while worse one-peak-hour cumulative departure attendees during 9:30 to 10:30 pm would 70%. (*California Department of Transportation (Caltrans), Patricia Maurice, letter, November 2, 2015 [A-Caltrans2-2]*)

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### **Section 13.11.3, Response TR-2d**

Response TR-2d concerns our comments now O-MBA10L4-7, O-MBA10L4-7, Caltrans (A-Caltrans-1) and others.

Our comments concern the fact that the DSEIR relies on turnstile data<sup>2</sup> on time of arrival at the Golden State Warriors current venue site (Oracle Arena) and other basketball venues to estimate how many attendees traveling to a game with a 7:30 PM start time would be traveling on the area transportation system in the 4 to 6 PM peak commute period versus in the 6 to 8 PM early evening peak shoulder period without considering the reasonable offsets between the time attendees enter the "paid" areas of the arena and the time when they were actually traveling on the transportation system.

Response TR-2d begins by stating as follows: *"For reasons explained below, the City disagrees with those comments and stands by its analysis, which reflects a number of evidence-backed, conservative assumptions. While some of the points raised in the comments seem intuitively believable, actual data from comparable situations show that the comments have exaggerated the likely numbers of people would arrive [sic] before 6 pm for a 7:30 pm event."*

Let us parse this introductory section of the response before moving to the further details.

Re: *"points raised in the comments seem intuitively believable",*

- It is undeniable fact that attendees occupy capacity on the transportation for a period of time that depends on the length of their journey and mode and that the period they occupy capacity on the transportation system occurs before the time they pass through the arena turnstiles.
- It is undeniable fact that even for attendees who go directly through the turnstiles into the paid section of the arena at the end of their trip to the site, there is a time offset between the time when they stop occupying capacity on the transportation system - when they debark onto the T Third platform, or the 22 Fillmore stop or find a parking place nearby or perhaps even start walking from BART, Caltrain or the other Muni-Metro lines - and the time they pass through the turnstiles



- It is fact that some attendees wait outside the venue, perhaps to meet up with companions traveling separately (possibly to hand them their tickets, just soak in the atmosphere of the crowd arriving or for other reasons). So the time these attendees occupy capacity on the transportation system is even more offset than those who enter the arena directly.
- It is fact that some choose to have drinks or meals at restaurants and bars outside the venue before entering the arena and that the offset between when these attendees occupy capacity on the transportation system and the time they pass through the arena turnstiles is even greater yet.

These considerations are not just *"intuitively believable"*; they are undeniable fact and the SEIR's analysis has failed to take them into account.

Re: *"the comments have exaggerated the likely numbers of people would arrive [sic] before 6 pm for a 7:30 pm event."*

The fact that time of arena event attendees' time on the transportation system is offset from the time they pass through the arena turnstiles for the reasons stated above is not a newly-discovered concept or theory; it is a fact the City and its consultants knew or should have known. It is the City's responsibility to have reasonably considered the offset factors in the SEIR and, based on that, reasonably estimated the number of arena attendees who would be impacting the transportation system during the evening commute peak hour in the case of a weekday evening arena event starting at 7:30 pm. We have made a reasoned effort to estimate how many attendee's travel to such an evening event would be offset into the evening commute peak hour. The City and its consultants have made absolutely no attempt to consider the offset factors in estimating impacts of travelers to a 7:30 pm arena event start on the transportation system in the evening commute peak hour. Hence, the City is in no position to opine that our reasonable estimate based on those offset factors is "exaggerated" since it didn't try to make such an estimate at all.

Re: *"the City disagrees with those comments and stands by its analysis..."*

This is an attempt to transform what is a matter of fact into a disagreement among experts in the hope that courts will grant deference to the City's opinion in the matter. However, since this is a clear matter of fact, the response is inadequate and the City has refused to make the good faith effort to disclose impact that CEQA demands.

Here we consider of details of Response TR-2d.

Response TR-2d in the last paragraph of Volume 4, page 13.11-41 states:

"As shown in the table on SEIR p. TR-37 of Volume 3 of the SEIR, multiple basketball venues from various sources were evaluated to derive the arrival patterns at the proposed project arena. Of these, two locations (Oracle Arena in Oakland and Barclays Center in Brooklyn) separately reported arrivals occurring more than one and a half hour prior to the start of a basketball game. The remaining facilities reported all arrivals occurring more than one hour before to the start of a game, most likely because those occurring more than one and a half hour prior to the game represent a small fraction of the total attendance. The average percentage of arrivals occurring between 5:00 and 6:00 p.m. for those instances where arrivals occurring more than one and a half hour prior to the start of a basketball game (i.e., between 5:00 and 6:00 p.m. for a typical game starting at 7:30 p.m.) is less than 2.5 percent. Thus, to account for potential daily variability in arrival patterns, as well as the additional time it may take for attendees to enter to the event center after their arrival at the site or nearby vicinity, the SEIR conservatively assumed that more than twice as many attendees as the average (i.e., 5 percent) would arrive between 5:00 and 6:00 p.m."

This section of the response is misleading in several respects. Although Volume 3, page TR 37 presents 7 data sets obtained for 6 NBA basketball venues, examination reveals all of the data is turnstile entry data and only 3 of the data sets for 2 venues provided useful data measuring turnstile arrival times earlier more than 1.5 hours before game start time (which would definitely put travel



by those attendees into the 5 to 6 pm evening commute peak period). One of those is for the Warriors at their current venue, Oracle Arena, and shows only 1 % of attendees arriving more than 1.5 hours before game start time. The other two are for the first two years of operations of the Barclays Center in Brooklyn which respectively showed 2.0 and 4.1 percent of attendees arriving more than 1.5 hours before the start of an evening basketball game.

Let us put this data in perspective. The Oakland-Alameda Coliseum complex on which the Oracle Arena sits has a total of almost 10,000 parking spaces, more than enough spaces to accommodate the entire Arena capacity attendance if attendees arrived at two persons per car occupancy. This facility is noted for tailgating before basketball games as well as before other events. In addition, persons arriving at the complex by BART can readily be observed joining friends who drove and parked at their tailgates. Because of this, the observed 1 percent of attendees turnstile count for Oracle is probably under-representative of the numbers of attendees who actually arrive on the premises more than 1.5 hours before game start by a factor of 25- to 30-fold or so.<sup>3</sup>

The other data sets from Brooklyn show turnstile counts at the Barclays Center more than 1.5 hours before game start at 2 percent in the initial year and 4.1 percent in the second year of operation. These percentages likely reflect in part attendees unfamiliar with a new venue and adapting their pregame behavior as they become more knowledgeable. But neither of the two years turnstile data provides any indication of how many of the attendees actually arrived in the vicinity of the Barclays Center more than 1.5 hours before event start (hence actually traveling on the transportation system in the pm commute peak period).

The SEIR takes these three data sets, averages them, finds them to be less than 2.5 percent of total attendees, doubles that to 5 percent and assumes that becomes a “*conservative*” estimate covering all the considerations why attendees might have arrived in the Project area 1.5 hours or more before event start (hence been traveling on the transportation system in the pm peak commute hour.). The problem with this is, there is nothing that connects the turnstile percentage of attendees entering the arena more than 1.5 hours before event start to the percentage who arrive near the venue site 1.5 hours before or indicates that double that turnstile count is a “*conservative*” estimate of that latter item. The claimed “*evidence backed, conservative assumptions*” the City claims to have made in this matter has no direct quantified or quantifiable relationship to the “*evidence*” the SEIR cites. The City, its consultants or the Project sponsor could easily have easily and inexpensively measured attendee arrivals to the Warriors current venue environs (the Oakland Alameda Coliseum property) via motor vehicle and BART, but they failed to do so. By ‘deeming this unnecessary’ as it does on page 13.11-42, Response TR-2d expresses preference for the SEIR’s own unsubstantiated guess as to how many attendees of a 7:30 pm start basketball event are actually traveling on the transportation in the pre-6 pm evening commute peak hour rather than having reliably measured data. And that guess is highly favorable to the Project since the low number of travelers in it minimize the chance of Project impacts on the transportation system being disclosed for the pm commute peak hour. The response is inadequate and inconsistent with the good faith effort to disclose impact that CEQA demands.

**Footnotes:**

<sup>2</sup> The time attendees actually enter the “paid” areas of the arena.

<sup>3</sup> We note that it would not have been difficult or costly for the City, its consultants or the Project sponsor to have taken aerial photos of parking at the complex 1.5 hours before game start and again some time after game start, counted the cars in each, and used the relative numbers as a reasonable surrogate measure of what percentage of attendees arrive 1.5 hours before event start.

(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-23])



#### Response to Late Comment TR-4: Methodology, Trip Generation

In response to the Caltrans' comment, the traffic analysis presented in the SEIR is internally consistent for existing plus project and cumulative conditions; there are no "inconsistent traffic patterns" or "irregular traffic" assumptions included in the analysis. RTC Response TR-2d explained the perceived anomalies regarding lower traffic volumes in the immediate vicinity of the project site under the Basketball game scenario compared to the No Event condition. The Caltrans letter acknowledges and accepts the explanation.

The Caltrans letter indicates that for the Basketball game scenario, there would be more project-related traffic in the peak hour during the 6:00 to 8:00 p.m. or 9:00 to 11:00 p.m. periods than during the 4:00 to 6:00 p.m. period; this is correct. The Caltrans letter recommends that the SEIR include a 2040 cumulative analysis of the 6:30 to 7:30 p.m. period under the Basketball Game scenario as it would have higher project traffic volumes than the peak hour of the 4:00 to 6:00 p.m. period. An additional cumulative analysis is not necessary because:

- The 6:30 to 7:30 p.m. period represents the end of the peak commute period and has lower background traffic volumes (non project related) than the peak hour of the 4 and 6 p.m. period.
- Virtually all project traffic during the 6:30 to 7:30 p.m. period is inbound to the project site, generally operating in the non-commute direction as the majority of the traffic at that time is leaving the San Francisco downtown, SoMa and Mission Bay area.
- The SFCTA travel demand model on which the analysis of cumulative 2040 conditions has been based has a scenario that has been developed and validated over the years for the 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m. periods. These scenarios, which are updated regularly by the SFCTA, have always been used in the cumulative analysis of many projects in San Francisco. No model scenario exists that has been developed or validated by the SFCTA for the 6:30 to 7:30 p.m. period.
- The purpose of the 2040 cumulative analysis under CEQA is to identify additional potential cumulative impacts beyond those already identified under the existing plus project conditions. Given that the majority of the project traffic would concentrate in the immediate vicinity of the site and represent the majority of the flow during the weekday p.m. (5 percent) and evening (65 percent) analysis periods, those potential impacts would be identified in as part of the existing plus project conditions analysis. As noted in the SEIR, at intersections where project-specific significant impacts were identified for existing plus project conditions, the proposed project would also be considered to result in a cumulative impact under 2040 cumulative conditions.

As described in the SEIR on pp. 5.2-81 – 5.2-82 and RTC document on pp. 13.11-41 – 11.11-42, time of travel for the event center events was accurately identified through appropriate use of best and most reliable data for other comparable sports facilities, such as Oracle Arena in Oakland and other facilities in Houston, Phoenix, Sacramento, and New York. Of these, two locations (Oracle Arena in Oakland and Barclays Center in Brooklyn) separately reported arrivals occurring more than one and a half hour prior to the start of a basketball game. The



remaining facilities reported all arrivals occurring more than one hour (as opposed to 90 minutes) before the start of a game, most likely because those arrivals occurring more than one and a half hour prior to the game represent a small fraction of the total attendance. The average percentage of arrivals occurring between 5:00 and 6:00 p.m. for those instances where arrivals occurring more than one and a half hour prior to the start of a basketball game (i.e., between 5:00 and 6:00 p.m. for a typical game starting at 7:30 p.m.) is less than 2.5 percent. This would indicate that unlike football games, pre-game tailgate parties do not typically occur for basketball games. Nevertheless, based on professional judgment, to account for potential daily variability in arrival patterns, as well as the additional time it may take for attendees to enter to the event center after their arrival at the site or nearby vicinity, the SEIR conservatively assumed that more than twice as many attendees as the average (i.e., 5 percent) would arrive between 5:00 and 6:00 p.m.

In addition, the traffic analysis locations (intersections and freeway ramps) evaluated in the SEIR are located within relatively close proximity of the project site, necessitating only a short, relatively quick walk to the event center, so that the assumed 5 percent of game attendees arriving at the event center adequately accounts for those using the transportation infrastructure between 5:00 and 6:00 p.m. Furthermore, in order to avoid understating impacts, the transportation analysis assumes an exact overlap between the peak hour for background traffic and the arrival of game attendees (i.e., between 5:00 and 6:00 p.m.). In reality, at various study locations, the highest peak hour traffic volumes actually occur earlier (e.g., from 4:30 to 5:30 p.m. or from 4:45 to 5:45 p.m.). The result is a conservative assessment of potential traffic impacts in the SEIR.

For basketball games in particular, the SEIR's transportation analysis assumed that twice as much travel would occur during the 5:00 to 6:00 p.m. peak hour compared to the average of arrivals obtained from actual data for the existing Barclays Center in Brooklyn, New York, which is located in a similar urban setting. The travel characteristics presented in the SEIR on Table 5.2-21 on p. 5.2-82 represent the percentages and time periods when attendees would be expected to be on the transportation network in the study area. Because parking facilities in the SoMa and financial district areas are predominantly occupied by workers who drive to downtown during the day, relatively few spaces would be available for event-related parking prior to 5:00 p.m. Vehicle trips occurring by taxi and other rideshare modes from downtown would occur closer to the event start time, and are included in the SEIR analysis.

As noted in the RTC document, additional surveys of attendee arrivals at the Oracle Arena where the Golden State Warriors currently play or other NBA facilities were deemed unnecessary, because, as noted above, arrivals to the Oracle Arena during the 5:00 to 6:00 p.m. peak hour are low (about 1 percent of the total, and while some attendees may tailgate in the parking lot, this activity would not be possible at the project site and therefore would not be representative) and because, as noted above, data from another location with similar urban and development conditions to the proposed project (i.e., Barclays Center in Brooklyn, New York) was determined to represent the best and most reliable data for use in



developing travel demand for the project. The commenter's assertion that surveys of the Oracle Arena arrivals would demonstrate that the 1 percent of arrivals during the 5:00 to 6:00 p.m. peak hour are underestimated by a factor of 25- to 30-fold (i.e., that between 25 and 30 percent of attendees arrive at the Oracle Arena premises during the 5:00 to 6:00 p.m. peak hour for a basketball game that starts at 7:30 p.m.) is not supported, nor does it make sense given the travel characteristics at NBA facilities in other cities and the typical 7:30 p.m. start time.

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### Issues Raised by Late Commenters on Methodology, Travel Modes

This response addresses all or part of the following comments, which are quoted below:

A-MTC-3

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#### User Mode Choice

The approach to estimating mode choice relies on observed data from AT&T Park/the San Francisco Giants and the Moscone Center, combined with conservative assumptions regarding transit, pedestrian, and bicycle use. The presence of analogous developments in the vicinity of the Mission Bay location with observed data on travelers is a very useful asset to the Mission Bay project and the analysis wisely leverages this information. MTC believes the mode split described for the project is reasonable and achievable. (*Metropolitan Transportation Commission, Ken Kirkey, letter, October 30, 2015 [A-MTC-3]*)

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### Response to Late Comment TR-5: Methodology, Travel Modes

OCII acknowledges MTC's review and concurrence regarding the travel mode assumptions used in the transportation impact analysis in the SEIR.

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### Issues Raised by Late Commenters on Methodology, Traffic LOS

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-24

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#### Section 13.11.3, Response TR-2f

Response TR-2f replies to our comments O-MBA10L4-3, O-MBA10L4-4, O-MBA10L4-23, O-MBA10L4-24, and O-MBA10L4-27. The first and fourth of these comments relate to the SEIR's failure to define the severity of the Project's traffic impacts. The second and third of these comments relate to failure to evaluate impacts at intersections under PCO control and the fifth relates to the SEIR's failure to account for the effects of train passage in the analysis of the intersection of Sixteenth, Seventh and



Mississippi. Both of these latter matters also ultimately go to the issue of failure to define severity of impacts.

With regard to the failure to address changes in severity to impacts at locations already operating under conditions qualifying as impacted, the first three paragraphs of the response are padding, reciting definitions of LOS that are not in dispute in the comments. The next three paragraphs of the response on page are legalistic arguments about whether CEQA requires disclosure of distinctions in severity to impacts where conditions are already in a state considered impacted. Without engaging in the argument of legal matters, we can state that from an engineering perspective, distinctions in severity of impacts represented by changes in delay in the LOS/delay computations are highly significant. If the computations at a ramp or intersection already at LOS F show changes of a couple seconds of delay or so, this is hardly perceptible to drivers and is not indicative of meaningful change in severity of impact. But if the computations show changes of, for example, a half-minute or a minute or more, this is indicative of a dramatic change in severity that is highly perceptible and involves potential for queue blockages of additional lanes or upstream locations. Since the calculation procedures are capable of generating these estimates of delay and distinction of severity, this information should not be suppressed and ignored – doing so appears to be inconsistent with the good faith effort to disclose impact that CEQA demands.

The response goes on for four more paragraphs discussing the evolution of LOS computation techniques, the City's practices in use of them, and the technical meaningfulness of them. The single point in these paragraphs worthy of consideration can be summarized as follows: Calculation procedures to determine delay have been validated for instances where the subject location is below or slightly above capacity; in circumstances where capacity is greatly exceeded the validation is less strong and therefore the delay predictions are less reliable. We acknowledge this. But it is still clear if, say, an intersection or ramp is a couple seconds over the LOS F threshold in the existing condition and addition of project traffic computes to add a half minute or minute or more of delay, those are significant changes in severity. This is regardless of the fact, because of the lower reliability of the delay calculation in the LOS F zone, that if the traffic were actually added in the field and the changes in delay were measured, the results might be 27 seconds added instead of a half-minute or 55 seconds added instead of a minute.

Response TR-2f continues for another page-and-a-half of irrelevant speculation that in the future, consideration of LOS/delay may be excluded from CEQA consideration. For the present, LOS is a CEQA consideration, the City has relied on it and that portion of the response can safely be dismissed.

Response TR-2f continues, replying to the issues in O-MBA10L4-4, O-MBA10L4-23, concerning failure to evaluate LOA/delay impacts at intersections under PCO control. This comment concerns specific tables in DSEIR Volume 1 that are explicitly identified in the comments, Tables 5.2-47 and 5.2-48, respectively located on pages 5.2-172 and 5.2-174. These tables have no entries for LOS or delay at certain intersections, with the normal space for delay and LOS entries in those tables filled with the notation "PCO Controlled". The response points to completely different tables, Tables 5.2-34, 5.2-35 and 5.2-36 as having delay and LOS entries for those intersection locations. This response evades the following questions:

- What is LOS and delay at the times these intersections are PCO controlled?
- Does the SEIR conclude that PCO control mitigates significant impacts at these locations or do they remain significantly and unavoidably impacted?

The response is inadequate.

The final portion of Response TR-2f concerns the apparent lack considering the effect of Caltrain train movements on delay and LOS at the intersection of Seventh, Sixteenth and Mississippi. The response confirms that the SEIR analysis did not attempt to analyze the effect of Caltrain train movements on the LOS/delay compiled for the intersection of Seventh-Sixteenth and Mississippi. It points out that the SEIR analysis shows that with the reductions in general traffic lanes associated with the 22 Fillmore Transit Priority project, together with Project traffic, with or without



overlapping Giants games, this location would be at LOS F. It then claims that, because the computation of delay is less reliable when LOS F conditions are already evident, there would be no point to attempting to further quantify the situation with respect to the effects on the subject intersection by Caltrain movements on the immediately adjacent grade crossing of Sixteenth. This absurd response ignores and attempts to evade the key point of the comment which is that had Caltrain movements been considered, there is a good prospect the analysis might have shown that traffic on Sixteenth would queue to an extent that might obstruct the intersections of Sixteenth with Owens, Sixteenth with Fourth, and even Sixteenth with Third. Since these locations are on a critical emergency and regular access route to the UCSF hospitals it is imperative that such an analysis be done (a good case for micro-simulation) and the SEIR is critically deficient for having failed to perform it. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-24]*)

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### Response to Late Comment TR-6: Methodology, Traffic LOS

As described in Response TR-2f in the RTC document on pp. 13.11-48 – 13.11-56, the SEIR fully discloses all significant traffic impacts. CEQA does not require identification of degrees of “worseness” beyond identification of significant impacts, and LOS methodologies do not accurately calculate delay beyond LOS F conditions. As discussed in the RTC document in Response TR-2f, the equations used to determine vehicle delay have been validated for conditions when an intersection is below, or slightly above capacity, and therefore does not properly represent oversaturated (i.e., beyond LOS F) conditions. For example, Exhibit 16-14 on page 16-24 of the Highway Capacity Manual 2000 (HCM 2000), which relates delay calculations with vehicle capacity, shows that once a delay of 80 seconds per vehicle is reached, maximum capacity ( $v/c=1$ ) is also attained. For calculated delay values above 80 seconds, the exhibit shows corresponding  $v/c$  values above 1.0 (the traffic volume is over the intersection capacity), which are not possible in the field. Thus, while LOS calculation sheets can produce outputs that show seconds of delay in excess of 80 seconds (these data are available in the transportation analysis background files for this SEIR, in Appendix TR, Volume 3 of the SEIR), these calculations should not be used to indicate the degree of “worseness” for traffic LOS F conditions due to these methodological limitations. Consistent with the methodological strengths of LOS analysis techniques, these techniques have been appropriately used in this SEIR to apply all feasible mitigation measures and to identify all significant traffic impacts when mitigation was not feasible.

As discussed in the SEIR and the RTC document, the Highway Capacity Manual (HCM) methodology used to calculate intersection LOS at signalized intersections is based on the peak 15-minute period of the one hour with the greatest traffic volume, and it assumes that during the analysis period, the traffic signal operation and traffic movements and flow would generally operate under the same regular pattern. This is not the case at intersections managed by PCOs before or after events at AT&T Park. At those locations, the normal operation of the traffic signal is interrupted due to travel lane or roadway closures, PCOs providing longer crossing times for pedestrians, and PCOs halting traffic flow temporarily to clear out the intersection or to allow transit to move, among other event-related transportation management strategies. These real-time responses to unfolding events allow for improved levels of traffic control compared with what mechanized traffic-light systems



can deliver. Mechanized systems operate with less flexibility, and are unable to respond immediately, in real time, to observed traffic conditions. As a result, the analytical tools and measurements appropriate for assessing the effectiveness of mechanized systems do not apply to PCO-controlled intersections. For all of these reasons, the intersection LOS at PCO-controlled intersections does not provide meaningful information and is not presented for those locations where PCOs already actively manage intersection operations. The intersection delay at study intersections where PCOs would be stationed as part of the project were analyzed not assuming PCO intervention, and conditions with PCO intervention are not possible to determine for the above-noted reasons.

As explained in the RTC document, the SEIR analysis did not explicitly include the delay associated with the at-grade crossing of Caltrain at the study intersections of Seventh/Mississippi/16th and Seventh/Mission Bay Drive, but the delay and LOS presented in the summary tables does reflect traffic conditions, including automatic gate operations. Prior to incorporating the 22 Fillmore Transit Priority Project into the intersection LOS analysis, the LOS conditions were verified based on field surveys of intersection operations conducted as part of this project and the UCSF Long Range Development Plan (LRDP) analysis conducted in 2013 and 2014. The results were also compared to the LOS analysis for existing conditions presented in the EIR prepared for the Caltrain electrification project.<sup>2</sup> The LOS results obtained for these two study intersections for the weekday p.m. peak hour were found to be generally consistent with field observations and the analyses presented at the two aforementioned reports.

As noted in the RTC document in Response TR-2f on pp. 13.11-55 – 13.11-56, the SEIR discloses project impacts at the two study intersections where Caltrain operates. Under existing plus project conditions, the addition of project-generated vehicles would worsen the existing LOS conditions at these two intersections where Caltrain operates. For conditions without a SF Giants evening game at AT&T Park, the proposed project would result in significant traffic impacts at the intersections of Seventh/Mississippi/16th (weekday p.m. and weekday evening peak hours) and Seventh/Mission Bay Drive (weekday evening and Saturday evening peak hours). With an overlapping SF Giants evening game, the proposed project would also result in significant traffic impacts at Seventh/Mississippi/16th (weekday p.m., weekday evening, and Saturday evening peak hours) and Seventh/Mission Bay Drive (weekday p.m., weekday evening, weekday late evening, and Saturday evening peak hours).

See Response to Late Comment TR-13, below, regarding emergency vehicle access.

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<sup>2</sup> Peninsula Corridor Electrification Project, Final EIR, January 2015. SCH # 3013012079. Available online at: [http://www.caltrain.com/projectsplans/CaltrainModernization/Modernization/PeninsulaCorridorElectrificationProject/PCEP\\_FEIR\\_2014.html](http://www.caltrain.com/projectsplans/CaltrainModernization/Modernization/PeninsulaCorridorElectrificationProject/PCEP_FEIR_2014.html). Accessed September 15, 2015.



## Issues Raised by Late Commenters on Methodology, Transit Capacity Utilization

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-25

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### Section 13.11.3, Response TR-2g

This response replies to our comments O-MBA10L4-3-13a and O-MBA10L4-18 which concerns the criteria the City uses to define impacts on transit.

To our comment that the ordinary transit impact criterion, ridership in excess of 85 percent of screenline capacity based on scheduled service, or by scheduled line service where an individual line evaluation is ordered, is unreasonable and unrealistic. Our reasoning is based on the fact that Muni rarely, if ever actually delivers the effective capacity of full scheduled service due to missed runs, bunching and skip-stopping and other issues related to lack of schedule reliability or on-time performance. The response describes how passengers are counted, but this clearly does not include those left standing at bus stops and LRT platforms. It also claims that the procedure takes into account the schedule reliability and on-time performance issues, but demonstrates no clear way that this is true. It also fails to address the issue that, when only a screenline analysis is performed, this assumes the excess capacity on one line is available to serve the excess ridership on another, while in reality, most people's travel patterns are well served by only a single line.

The response then moves to a key issue, that the City has relaxed the normal threshold of impact from 85 percent to 100 percent of capacity for this particular Project. One of our criticisms is that relaxation of the normal threshold of significant impact for one favored project is inconsistent with the good faith effort to disclose impact that CEQA demands. The response's reply to this is that San Francisco already did the same for the 34th America's Cup competition event and New York City does it all the time for large special events. But the America's Cup competition is/was fundamentally different from the proposed Project in that it involved large-attendance spectator event competition occurring over just a few days in a single year; the Project involves events on over 200 days per year repeated over many, many years. Moreover, the fact that nobody noticed that the City changed the rules for that specific event does not make it right then and does not justify making a special change of the impact criteria for this Project or for any project. As regards to what New York City does for transit impact criterion with respect to large special events there, that is irrelevant to San Francisco.

A key issue identified in the comments is that while event-attendees may tolerate 100 percent-of-capacity crush loads (a justification the DSEIR used for the relaxed impact criterion), the problem is that this imposes a special misery on the people who are normal users of the affected lines at the times. Response TR-2g fails to address this relevant point. Furthermore, the issue of who the regular riders who are adversely impacted when special event attendees overcrowd and slow the operation of the affected transit lines has Social Justice implications. We explore this topic, which the SEIR fails to address, below.

Other commenters provide evidence that the community south of the Project site served by the T Third line is a disadvantaged community that is adversely impacted by the effects of transit services to the Project that create social justice issues unaddressed in the SEIR. Here we discuss transit operations considerations that lend support to the assertion that the SEIR has failed to address social justice issues.

- Regular users of the T Third will suffer unpleasant overcrowding due to event-goers in the pre-event and post-event periods, having to deal with scarcity of seating and uncomfortable sharing of standing space with boisterous pre-event goers and over-exuberant or angrily depressed (and often liquor-fueled) departing event goers.



- The City's decision to reduce the threshold of significant impact from the normal 85 percent of capacity to 100 percent of capacity exacerbates the overcrowding impacts on the regular user community.
- Special T Third shuttle services to the Project site that turn back near the intersection of Sixteenth and Third occupy time slots that could be filled by runs that serve the community to the south in this corridor.
- Heavy boardings and alightings associated with event arrival and departure travel increase station dwell times, slowing service to normal users south of the Project site. Delays associated with shuttle operation turn-backs do the same. Also, turn-backs tend to create big gaps in service south of the Project site, as is reportedly already evidenced as the result of Giants games.
- Reconstruction of the T Third station platform near the intersection of Third with Sixteenth to accommodate Project crowds, a reconstruction that will require over a year, will inevitably delay T Third services to the disadvantaged community to the south over the duration of the construction period. At times this may even require substitution of inferior bus services.

All of these constitute transit operational reasons why the SEIR should have included a Social Justice Impact section that has not been provided. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-25]*)

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### Response to Late Comment TR-7: Methodology, Transit Capacity Utilization

As described in Response to Late Comment TR-3 above, Muni ridership used for the downtown screenline analysis was obtained from the SFMTA and represents the current data that is available from the agency and used to determine project impacts on Muni service for development projects. While Muni has not met its on-time performance goals, most of the scheduled service is delivered (i.e., between 97 and 99 percent), and most routes operate at less than capacity utilization at the maximum load point.<sup>3</sup> The methodology used to develop transit ridership by the SFMTA for use in transit impact analyses was detailed in the RTC document in Response TR-2g, and accounts for actual operations, including the extent of crowding when transit headways are not met.

The commenter is incorrect in stating that the City relaxed the transit significance threshold for this particular project. The 85 percent capacity utilization standard typically used for peak hour transit analysis was applied to the downtown screenlines, the T Third, and the 22 Fillmore analyses for the weekday p.m. peak hour. The 100 percent capacity utilization standard was applied for analysis hours outside of the weekday p.m. peak hour (i.e., weekday evening, weekday late evening, and Saturday evening conditions), and only to the T Third, 22 Fillmore, and the Muni Special Event Shuttles (i.e., not the downtown screenlines). The use of the 100 percent capacity utilization threshold for transit analysis related to pre-event and post-event conditions reflects riders' higher tolerance for near-capacity loadings associated with events. As described in the SEIR, the 100 percent capacity utilization threshold was used in the transit analysis for The 34th America's Cup and James R. Herman Cruise Terminal and Northeast Wharf Plaza EIR, and would similarly be applied to other event venue projects where special event transit service would be proposed. The

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<sup>3</sup> SFMTA, Strategic Plan Metrics Report, November 2015. Available online at <https://www.sfmta.com/about-sfmta/reports/service-standards>. Accessed November 20, 2015.



commenter states that 100 percent capacity utilization represents crush load conditions; this is not correct. As noted in the RTC document, crush load conditions occur when ridership exceeds 125 percent of the planning capacity of the vehicle as identified by Muni.

As indicated on Tables 5.2-40 through Table 5.2-42 on SEIR pp. 5.2-136 – 5.2-137, the capacity utilization of the 22 Fillmore for all existing plus project scenarios and analysis hours would be less than the 85 percent capacity utilization standard. Capacity utilization of the T Third light rail line would also be less than the 85 percent capacity utilization standard during the weekday p.m. peak hour, weekday late evening peak hour, and the Saturday evening peak hour. The capacity utilization on the T Third would exceed 85 percent only during the weekday evening pre-event condition for a sell-out game or concert event. As noted on Table 5.2-41 on SEIR p. 5.2-137, during the weekday evening peak hour the capacity utilization would be 93 percent.

The SEIR acknowledges that prior to and following an event, the 22 Fillmore and T Third would become more crowded. Operation of the T Third service at more than the 85 percent capacity utilization standard for short periods of time to accommodate event attendees does not represent social justice issues noted in the comment, and the commenter is not correct in stating that a social justice impact section is required in the SEIR (See Exhibit D, Section 2, Response to Late Comment GEN-2 and RTC document Section 13.2.4).

- Prior to and following an event, regular users of the T Third would be subject to more crowded conditions that exceed the capacity utilization standard, but which are not crush load conditions, for only a portion of the route between Market Street and the project site. As noted above, the capacity utilization of the T Third would exceed the 85 percent capacity utilization standard only during the weekday evening pre-event condition for a sell-out evening event (and not post-event as stated in the comment).
- As noted in the SEIR on pp. 5.2-75 – 5.2-77 and RTC document on pp. 13.11-60 – 13.11-61, the 85 percent capacity utilization standard was applied to the weekday p.m. peak hour conditions for the downtown screenlines, and the 22 Fillmore bus route and the T Third. The 100 percent capacity utilization was applied to the weekday evening, weekday late evening, and Saturday evening conditions. Only the T Third would exceed the 85 percent capacity utilization standard during the weekday evening peak hour.
- The Muni Special Event Transit Service Plan does not assume that there would be a reduction in transit service elsewhere in San Francisco, and its provision would not conflict with existing or planned T Third service to the south of the project site.
- Prior to and after an event, the dwell time – the time it takes passengers to enter and exit the train – at the UCSF/Mission Bay Station would increase due to increased passengers at the station. The project includes features to enhance operations of the T Third, such as platform improvements and crossover tracks, to minimize delays associated with the additional service to the project site.
- Construction of improvements to the UCSF/Mission Bay Station platform would require substitution of light rail service by bus. Service interruptions would be minimized, to the extent possible, but could not be avoided. It is unclear why the commenter believes that



bus service would be considered inferior to light rail service. San Francisco provides numerous light rail lines and bus routes throughout the City, with most transit service provided via buses.

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### Issues Raised by Late Commenters on Methodology, Cumulative Analysis Year and Context

This response addresses all or part of the following comments, which are quoted below:

A-MTC-4

O-MBA20L7-26

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#### Regional Transportation Infrastructure

The baseline transportation network for the Project is adequately described in the SEIR. Relative to transportation impacts the information cited regarding the Central Subway and Muni Forward projects is correct. Expanded Muni boarding islands to accommodate passenger demand is a beneficial infrastructure investment that will increase transit capacity during peak usage periods. Therefore, improvements to the Muni UCSF/Mission Bay Station Platform, both under the proposed project and the Muni UCSF/Mission Bay Station Variant, will benefit not only the Project but also Muni transit riders within Mission Bay generally.

The SEIR describes Muni shuttle routes that are not specifically included in Plan Bay Area. This type of flexible, relatively low cost operational effort does not have to be included in Plan Bay Area. However, it should be noted that similar service boosts were included in PBA related to two major, multi-phase neighborhood development projects in San Francisco, Treasure Island & Hunters Point/Candlestick Point. Similar to Mission Bay, both of these neighborhoods are Priority Development Areas (PDAs) and will be incorporating a large share of Plan Bay Area's growth allocation of housing and jobs for the City and County of San Francisco through 2040.

The SEIR includes a cumulative impact analysis that is appropriately comprehensive and reflects nearby planned development in the Mission Bay neighborhood as well development that is envisioned in the Central SOMA neighborhood plan. Infrastructure investments analyzed in the cumulative impact analysis include: Interstate 280 ramp changes; the extension of the MUNI 22-Fillmore trolley bus to Mission Bay; the Central Subway; the Muni Forward service and capacity improvement project; the addition of the new, expanded Transbay Terminal; Caltrain Electrification; the Downtown Extension that will link Caltrain from its current terminus at 4th and King to the Transbay Terminal; and, unspecified capacity upgrades for other regional transit operators. Regional improvements like those addressed in the cumulative impact analysis are funded through MTC, its \$293 billion regional transportation plan budget through 2035, encompassing reasonably anticipated regional, state and federal fundings [sic] sources. Moreover, it should be noted that a number of the regional improvements addressed in the SEIR including the Central Subway are already under construction. (*Metropolitan Transportation Commission, Ken Kirkey, letter, October 30, 2015 [A-MTC-4]*)

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#### Section 13.11.3, Response TR-2h

This response replies to our comments O-MBA5-6, O-MBA10L4-9, O-MBA10L4-10, O-MBA10L4-11, O-MBA10L4-12, O-MBA10L4-26 and O-MBA10L4-36 and those of others. The points of these comments are summarized as follows:



- The cumulative analysis, pegged to Year 2040, 25 years from now, is purely speculative.
- While a speculative look at conditions 25 years hence is not objectionable, overlooking a cumulative scenario 10 years hence misses the most active concerns of the current residents of San Francisco and the region, hence the SEIR is defective as an information document.
- Absent inclusion of a shorter time-frame cumulative analysis, the long-term cumulative analysis deludes the public as to the nearer-term cumulative consequences of the Project.
- Given the rapid pace of development approvals including frequent planning and zoning variances, a 25 year forward cumulative analysis based on General Plan development quantifications is irrelevant.
- The transportation planning forecast tool used to prepare the travel forecasts for the 2040 cumulative analysis has a greater validation error (by a factor of 2) than the threshold of Project cumulative impact.
- The City is actively planning massive changes to the transportation network that would substantially alter (seemingly to the Project's detriment and to make it more impactful) transportation conditions in the immediate Project vicinity and that are as reasonably foreseeable as the plan development totals relied on in the 2040 analysis. The SEIR has failed to assess these transportation network changes.
- The SEIR uses an improper baseline for assessing cumulative transportation impacts. It assesses the Project's impacts relative to 2040 conditions that are assumed to exist without the Project. Per CEQA, it should evaluate the Project's impacts, in combination with those of other present and reasonably foreseeable future projects on the existing environment. The essential difference is that what the SEIR has done is to compare a projection to a projection. CEQA requires comparison of a joint projection to a known (the existing condition). These are different things.

Response TR-2h begins with a laborious 4-page description of the City's ordinary practices in cumulative analysis and of the SF-CHAMP transportation model. The discussion fails to address any of the issues in the comments and, in particular, the SF-CHAMP model's calibration error being double the threshold of impacts that it is being relied upon to disclose.

Response TR-2h continues in an attempt to justify the distant year cumulative analysis as follows:

The 2040 cumulative horizon year is preferable to shorter period because the 25-year horizon year more accurately accounts for land use changes and their associated transportation network changes, as well as other planned transportation improvements. Future growth occurs according to the vagaries of variable economic conditions, development trends, changing sponsor development priorities, and legal actions that delay or curtail proposed development, and therefore, short-term land use growth patterns cannot be accurately predicted in five-year increments. In particular, redevelopment projects such as those included in the 2040 growth forecasts (e.g., Mission Bay Plan, Candlestick Point - Hunters Point Shipyard Plan, redevelopment of Pier 70 and Seawall Lot 337), often take longer than anticipated to be completed. For example, the Mission Bay Plan was anticipated to be substantially built-out by 2015, which is the cumulative analysis year for transportation conditions in the Mission Bay FSEIR; however, construction of development is still underway and the UCSF Mission Bay campus is anticipated to be completed by 2019. Nearby, the Candlestick Point - Hunters Point Shipyard Phase II Development Plan identified completion of about 3,100 residential units by 2017; however, only about 240 of the 3,100 residential units are anticipated to be completed by the end of 2015. Construction of development part of the Pier 70 project is anticipated to continue through 2030. Thus, because larger multi-year development proposals would be built over a number of years, a future cumulative analysis year considers completion of buildout of these projects. Therefore, the cumulative impact analysis presented on SEIR pp. 5.2-208 – 5.2-232 (i.e., Impact C-TR-1 though Impact C-TR-10) adequately reflects the proposed project's impacts in combination with other past, present, and reasonably foreseeable future projects, and a different or additional cumulative analysis year is not warranted.



This response begs the question: If all this is true, why didn't the City use a 50, 60 or 100 year period for the cumulative analysis. The response, although seemingly filled with factual information, is nonsense relative to the issues.

Also, nothing in the response addresses the final bulleted point above or its elaboration in the original comments. CEQA requires evaluation of the cumulative condition, including the Project in combination with other foreseeable in comparison to the existing environment, not a comparison of two hypothetical future conditions. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-26]*)

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### Response to Late Comment TR-8: Methodology, Cumulative Analysis Year and Context

As noted in MTC's comment, improvements to the Muni UCSF/Mission Bay station platform would benefit all T Third riders using the station. As indicated by MTC, the Muni Special Event Transit shuttles, which would only be implemented during larger events at the project site, do not need to be included in MTC's Plan Bay Area. Transportation infrastructure investments noted by MTC were included in the cumulative transportation impact analysis, and, as noted in the comment, a number of the regional improvements are already under construction.

The appellant raises several unsupported points regarding the analysis of cumulative conditions in the SEIR.

- **The year 2040 analysis is speculative.** The analysis presented in the SEIR is based on sound methodological transportation planning practices. The travel demand forecasting tool used to develop the year 2040 cumulative conditions presented in the SEIR was developed by the SFCTA over 25 years ago and has been enhanced with improved data and algorithms ever since. The input data into the model is based on regional population and employment information first prepared by ABAG. Using population and employment input provided by the local planning agencies, every couple of years ABAG runs a socioeconomic model that balances population and employment for the following 25 years period. The San Francisco Planning Department (long range planning) then takes this information and refines it within the San Francisco city and county limits both at the geographical (smaller sized zones) as well as allocation (more accurate positioning of land uses). This effort takes several months and the results are then passed over to the SFCTA, which keeps, updates and runs the countywide forecasting model (i.e., SF-CHAMP). As part of its assigned work, the SFCTA regularly updates the methods algorithms of the model every two to five years. This effort is usually conducted through a peer review process and, since the model is used as a congestion management planning tool, includes the legal requirement of review and approval of the inputs, methodology and results by MTC.
- **A near term 10-year analysis will better inform the public of the cumulative conditions with the project.** The San Francisco Planning Department analyzes project impacts with respect to existing and cumulative conditions for the future horizon year at the time of the study, year 2040 in this case. The commenter thinks that a 10-year interim cumulative scenario is required. Case law is clear that no such "interim" cumulative time frame is required by law. (See *City of Irvine v. County of Orange* (2015) 238 Cal.App.4th 526, 541-544.) A 10-year scenario could be more speculative than the analysis of 2040 conditions, as the approval of a project or plan does not imply that it



will be expeditiously built. Specifically, the Mission Bay South Area Plan approved in 1998 assumed that buildout would be accomplished less than 20 years later, in 2015. As it happens, Mission Bay South is now approximately 60 percent built and full buildout can be expected no sooner than 2040, when UCSF expects to open the second phase of the Medical Center on the two blocks between Fourth and Owens Streets (cited in UCSF LRDP EIR). Thus, a 17-year full buildout expectation (1998 to 2015) is turning into a 42-year plan (1998 to 2040) due to changing economic conditions. A similar situation is expected to happen with other nearby plans already approved or in the process of being approved such as Eastern Neighborhoods, Western SoMa, Pier 70 and Mission Rock. In fact much of the “rapid pace of development” observed in the area by the commenter is the result of long-term plans approved over 10 years ago such as the Mission Bay South Plan, Rincon Hill Plan, Eastern Neighborhoods Plan, etc. Thus, analysis of 2040 conditions is a more reliable scenario that appropriately captures cumulative conditions.

- **The SFCTA CHAMP model has validation error that is larger (by a factor of 2) than the threshold of Project cumulative impact.** It is unclear what the statement from the commenter means, since there are several thresholds used on the SEIR to establish potential impacts; for example, moving from LOS D to LOS E (with an average vehicle delay of more than 55 seconds per vehicle) for an intersection, increasing transit capacity utilization over 85 percent, adding more than 5 percent of traffic at a critical movement already operating at LOS E or F, etc. Furthermore, the concept of a single value for a model validation error put forward by the commenter goes against proper transportation modeling practice. When validating a travel demand forecasting model, the level of predictability for various model elements are assessed individually, each one having a different target value. For example, a higher level of accuracy will be asked from the predicted traffic values for arterials and major streets than for local collectors and alleys. Similarly, a higher level of accuracy will be necessary when evaluating a transit corridor (multiple transit lines and services) ridership than for alightings and boardings of a single transit line, and better representation of future traffic and transit conditions would be expected than of expected bicycle or pedestrian flows. The SF-CHAMP model is regularly re-validated whenever major changes to the model inputs and algorithms are made, including the regular update of population and employment forecasts provided by ABAG. These changes and the subsequent model results are then reviewed and have to be approved by the Metropolitan Transportation Commission. The SFCTA is the designated Congestion Management Agency (CMA) for San Francisco County and as such is responsible for developing and adopting a Congestion Management Program (CMP) on a biennial basis. The CMP legislation<sup>4</sup> requires that CMAs develop a uniform database and model for evaluating transportation impacts of land-use decisions consistent with the regional mode land databases. SF-CHAMP has been regularly deemed consistent with the methodologies used by MTC Regional Travel Demand Models and databases, and therefore meets the legal requirements for the development of a CMP in San Francisco.
- **The City is actively planning massive changes to the transportation network that are not considered in the analysis of cumulative conditions.** The commenter does not specify which massive changes the sentence is referring to. In any event, all transportation network changes planned by the City have been incorporated into the

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<sup>4</sup> Government Code Section 66531 authorized Bay Area counties to develop Countywide Transportation Plans and directed MTC to develop guidelines to assist CMAs and other appropriate agencies in the development of the Countywide Transportation Plans



existing plus project scenario (e.g., Central Corridor LRT, transit lanes on 16th Street, Mission Bay Infrastructure Plan) or 2040 cumulative analysis. In order for transportation infrastructure projects to be included as part of the cumulative analysis, they need to be part of the Plan Bay Area, which is developed by MTC in coordination with cities, counties, Caltrans, and transit service providers. In the case of San Francisco, these projects are also represented in Muni's Short-Range Transit Plan and SFCTA San Francisco Transportation Plan. As noted above, MTC reviewed the cumulative project assumptions, and concurred with the methodology for analysis of the existing plus project and cumulative conditions. If the commenter is referring to the concept of removing a portion of I-280 north of Mariposa or 16th Streets included in the San Francisco Planning Department's Railyard Alternatives and I-280 Boulevard Feasibility Study, this concept is only being studied and it is speculative at this time, thus, any assessment of transportation impacts would rely upon conjecture. This ongoing study is described in the SEIR on pp. 5.2-109 – 5.2-110; however, this concept is not a sufficiently defined project to undertake a credible analysis reflective of the unknown complexity of associated circulation changes.

- **Why didn't the City use a 50, 60 or 100 year period for the cumulative analysis?** OCII did not use "a 50, 60 or 100 year period for the cumulative analysis" because such time frames would have required OCII to engage in gross speculation -- the equivalent to attempting to predict in 1912 what conditions would be in 1962, 1972, or 2012. Notably, nothing in CEQA or the CEQA Guidelines identifies a particular time frame that lead agencies must use in attempting to assess cumulative impacts. Rather, the choice is left to the agencies' informed discretion. Normally, the choice of an appropriate cumulative time frame reflects the need to strike a balance between looking at too short a period, on the one hand, and looking at too long a period, on the other. A period that is too short can overlook impacts of foreseeable large, multi-year projects that will build out over a substantial period of time, resulting in the understatement of impacts. In contrast, a period that is too long can sometimes require a lead agency to engage in too much speculation, with the result that very long-term predictions may be relatively meaningless. Here, OCII reasonably chose to use a 25-year time frame, and its decision to do so is supported by abundant substantial evidence. As noted in the previous responses, the future horizon year for transportation planning purposes is established by ABAG, which develops population and employment estimates for the Bay Area at the city and county levels. The horizon year is typically reviewed upwards every two or three years so that there is a 25- year outlook at which time new cumulative projections are developed. MTC uses the same year and set of data to update their regional travel demand forecasting model. The San Francisco Planning Department and SFCTA also use these regional projections to allocate growth within the City and update the SF-CHAMP model. Thus, there is a concerted effort starting at the regional and ending at the local level to develop a common horizon year for cumulative transportation analysis.
- **The cumulative analysis improperly relies on "a comparison of two hypothetical future conditions."** The commenter contends that OCII somehow violated CEQA because OCII's projections of 2040 conditions represent a "hypothetical future condition." The commenter urges that the proper approach for evaluating cumulative impacts would have been to begin with existing conditions, and then to add to them the impacts associated with "the Project in combination with other foreseeable [projects]." In making these points, the commenter implies the existence of a distinction between possible approaches to assessing cumulative impacts that does not exist in practice. Under whatever approach is used, there



is simply no way to avoid predicting the future in assessing cumulative conditions either without or with a proposed project in place. In either event, a lead agency must attempt to predict “future conditions.” (See *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 454 [cumulative impact analysis requires a prediction of “a project’s effects on future conditions”].) Thus, although “existing conditions” are normally the proper baseline for assessing project-specific effects, “future conditions” are the appropriate baseline for assessing cumulative impacts. One way to try to predict such future conditions is to examine the combined environmental effects of past, present, and probable future projects. (CEQA Guidelines, § 15130, subd. (b)(1)(A).) Under that approach, “existing conditions” are generally reflected in the impacts of past and present projects. Another equally legitimate approach is to employ a “summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect.” (*Id.*, subd. (b)(1)(B).) This latter method can be satisfied through the use of a computer model that includes as inputs the kind of information that can be derived from such planning documents. (*Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 928-931.) This second approach may not specifically call out existing conditions, but the approach is nevertheless totally legitimate. Since either approach inherently involves some degree of uncertainty regardless of the quality of the evidence on which a lead agency relies, any prediction of “future conditions” is necessarily and inevitably somewhat “hypothetical.” Any project opponent – or lead agency – that claims to know the future with certainty is making a claim that, in the nature of things, cannot possibly be accurate. Lead agencies can only make their best informed predictions based on the credible evidence that is available to them. That is what OCII has done here. (See SEIR pp. 5.2-208 – 5.2-232 [i.e., Impact C-TR-1 though Impact C-TR-10]; see also *City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 412 [court rejects attack on the use of future growth projections in an EIR, even though “[t]he accuracy of these projections must, of course, await the passage of time”].)

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### Issues Raised by Late Commenters on Methodology, Adequacy of Transportation Analysis

This response addresses all or part of the following comments, which are quoted below:

A-MTC-1

A-MTC-5

O-MBA27S9-5

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In particular, staff has considered the assumptions and approaches outlined in the SEIR relative to mode choice and the analysis of project-serving transportation projects as well as the relationship of transportation projects identified in the SEIR relative to transportation projects included in the Regional Transportation Plan/Sustainable Communities Strategy adopted in 2013, Plan Bay Area (PBA). We believe that the assumptions encompassed in the SEIR are sound and appropriately conservative and the transportation project analysis considers the relevant transportation projects for analysis. From a regional perspective, this location is well-served by transit and would likely experience a high percentage of non-auto mode trips in comparison to most Bay Area locations. Our detailed comments are outlined below. (*Metropolitan Transportation Commission, Ken Kirkey, letter, October 30, 2015 [A-MTC-1]*)

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In summary, the SEIR reflects key regional projects serving the arena vicinity including the Central Subway and Muni Forward projects (as the project would be directly served by both). Improvements to other systems – like BART and Caltrain – that do not provide direct service but would be accessible from the proposed arena and provide service to the vicinity from the East Bay and the Peninsula are also described in the SEIR. Both BART and Caltrain have projects included in Plan Bay Area that will provide for expanded service and capacity of those systems. These projects and their connectivity to local-serving transit projects such as the Central Subway and MUNI Forward further support the mode choice assumptions outlined in the EIR. (*Metropolitan Transportation Commission, Ken Kirkey, letter, October 30, 2015 [A-MTC-5]*)

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The SEIR's inadequate traffic analysis is explained in reports and letters submitted to the City and OCII throughout the administrative process for this project, as noted above, all of which are incorporated by reference. In particular, I respectfully direct the Commission's attention to the attached letters and reports from my co-counsel Thomas Lippe and experts Smith Engineering & Management, and Larry Wymer & Associates, Traffic Engineering. (*Mission Bay Alliance, Soluri Meserve, letter, November 10, 2015 [O-MBA27S9-5]*)

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#### **Response to Late Comment TR-9: Methodology, Adequacy of Transportation Analysis**

OCII acknowledges MTC's concurrence with the assumptions and approaches outlined in SEIR.

It is acknowledged that the Mission Bay Alliance has submitted materials addressing transportation issues, all of which have previously been adequately addressed in the SEIR and RTC document. Many of the same comments are also addressed in this Exhibit D, Late Comment Response document.

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#### **Issues Raised by Late Commenters on Traffic Impacts**

This response addresses all or part of the following comments, which are quoted below:

A-UCSF2-2

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- Second, we ask that the City, working with Caltrans, provide a solution to the traffic congestion at the Mariposa I-280 northbound off-ramp during pre-event peak periods. UCSF requested a mitigation measure to reconfigure the off-ramp lanes to better segregate Event Center traffic from UCSF and other non-Event Center traffic. We believe that this is a feasible and effective measure. (*University of California San Francisco, Lori Yamauchi, letter, November 3, 2015 [A-UCSF2-2]*)
- 

#### **Response to Late Comment TR-10: Traffic Impacts**

Since the OCII hearing on November 3, 2015, the City's Traffic Engineer has reviewed the intersection of Mariposa Street with the I-280 northbound off-ramp and suggests the



following modifications: The travel lane configuration at the bottom of the I-280 northbound off-ramp where it widens to three lanes are proposed to remain the same as it had previously been proposed and designed as part of the Mission Bay Plan (namely: a dedicated left turn lane, a dedicated northbound through lane and a shared northbound through and right turn lane). The proposal to best segregate event center traffic from UCSF and other non-event center traffic would be to change the striping midway up the off-ramp where there are only two travel lanes from a dedicated left turn lane plus a shared through and right turn lane, to a shared left turn and through lane plus a shared through and right turn lane. This would better avoid vehicles intending to continue northbound on the future Owens Street from having to queue behind vehicles making a right turn onto eastbound Mariposa Street, which could back up during peak pre-event periods.

On November 18, 2015 the Office of Economic Workforce Development and SFMTA discussed this reconfiguration with Caltrans District 4 Bureau Chief Patricia Maurice and Transportation Planner Sherie George. Caltrans District 4 staff is currently analyzing existing and projected turning movements at this intersection during event and non-event periods to determine the impacts to exiting vehicles during all hours of the day. The City is working with Caltrans to complete this review prior to the scheduled completion of Owens Street in the spring of 2016.

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### Issues Raised by Late Commenters on Transit Impacts, BART

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-27

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#### Section 13.11.6 – Response TR-5

This response relates to comments by BART (Comments A-BART-1, -4, -5, -7, -8, and -9) and ourselves (O-MBA10L4-19) supplying a station-level analysis of impacts on BART that was critically missing in the DSEIR. This station-level analysis provides completely new information, including Table 13.11-2, and conclusions that were previously missing. Consequently, the information should be available for review for the full 45 day review period in Recirculated Draft status under CEQA. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-27]*)

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#### Response to Late Comment TR-11: Transit Impacts, BART

RTC Response TR-5 does not provide a station level analysis for BART, but instead provides information as to why a station-level analysis was not needed and was not conducted as part of the transportation analysis for the SEIR. The response also provides clarification regarding BART ridership information. The information in Table 13.11-2 is from data contained in Appendix TR, and not new information or analysis. The inclusion of the tables in the RTC



document does not change any analysis or conclusions presented in the SEIR. Recirculation of the SEIR is therefore not required pursuant to CEQA Guidelines Section 15088.5.

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### Issues Raised by Late Commenters on Loading Impacts

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-28

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#### Section 13.11.6 – Response TR-8

This response replies to our comment O-MBA10L4-28 concerning truck loading. The response indicates that new (un-numbered and untitled) figures showing truck turning templates for each loading are presented with the response. It is not evident if and where the said figures are actually provided. Hence, the response is inadequate. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-28]*)

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### Response to Late Comment TR-12: Loading Impacts

The truck turning templates were prepared for the Major Phase Application that was submitted for project approval to OCII. Due to the large-scale format of the truck turning overlays, they were inadvertently omitted from inclusion in the RTC document. The figures support the analysis of loading impacts included in the SEIR and demonstrate that the on-site loading spaces were designed to accommodate trucks of varying size and would be accessible even if the larger spaces are occupied. These figures do not result in a different assessment than was provided in the SEIR Impact TR-8 on SEIR pp. 5.2-161 – 5.2-166. These figures are shown on the following pages.

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### Issues Raised by Late Commenters on Emergency Vehicle Access Impacts

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-29      O-MBA27S9-7

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#### Section 13.11.6 – Response TR-9

This reply responds to our comment and those of others regarding access impacts to emergency vehicles attempting to reach UCSF hospitals located in the immediate vicinity of the Project. The response consists of a repetition and elaboration of the description of the ineffectual measures that prompted the comment rather than proposing clear mitigation to resolve the issues. We note that the critical traffic LOS deficiency at the intersection of Seventh, Sixteenth and Mississippi, which is on advertised emergency routes to the UCSF hospitals is unmitigated and that the SEIR analysis at this





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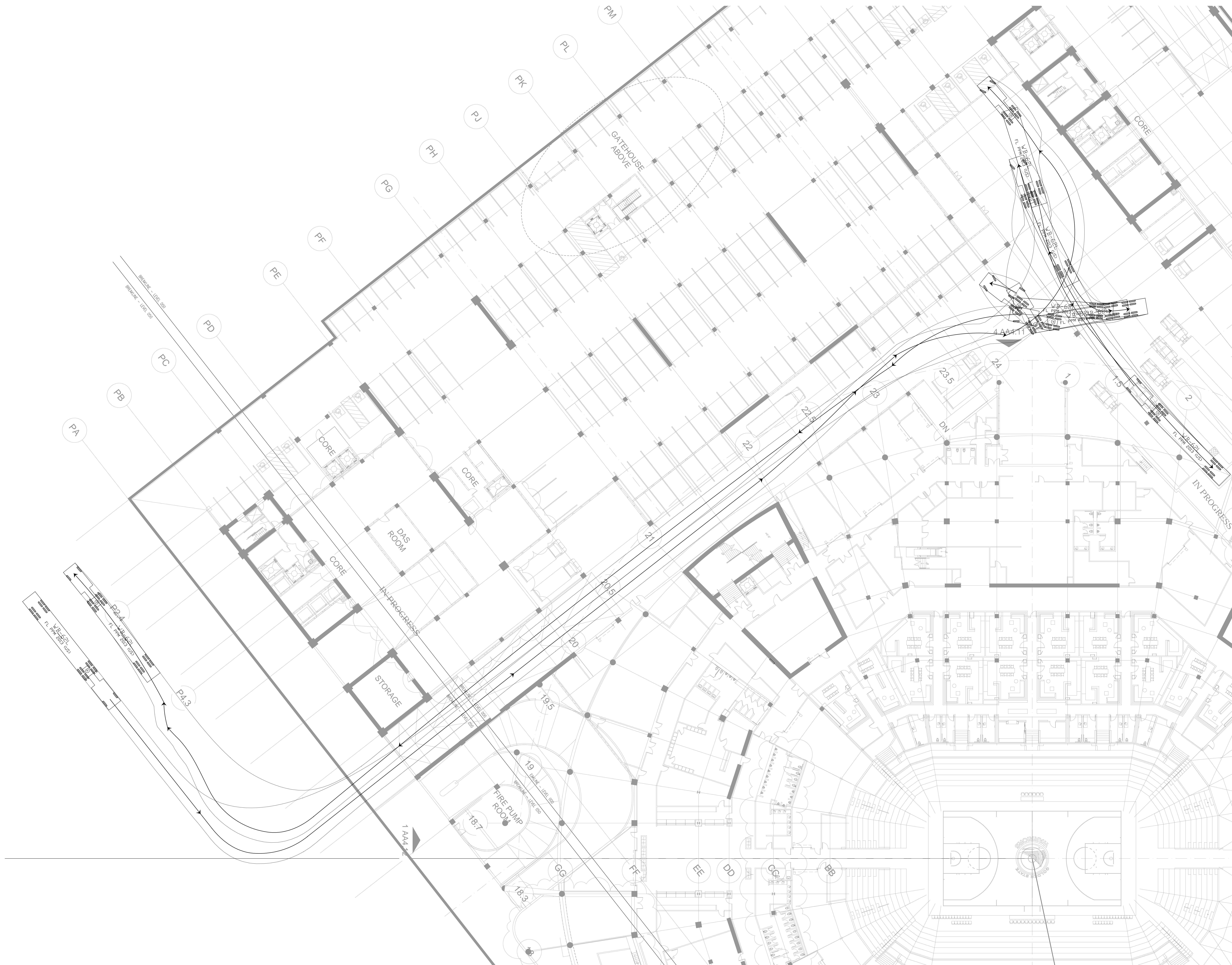
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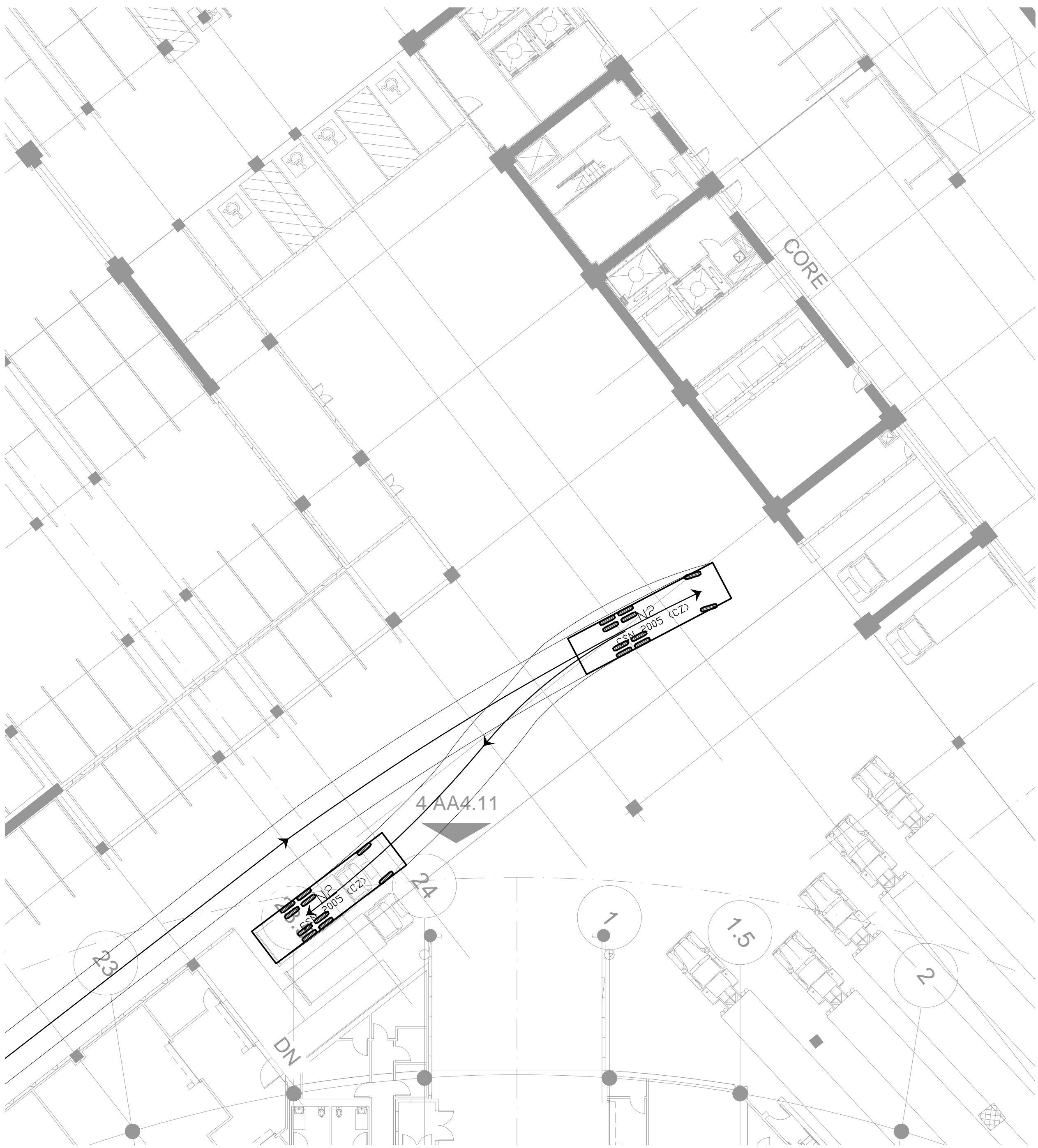




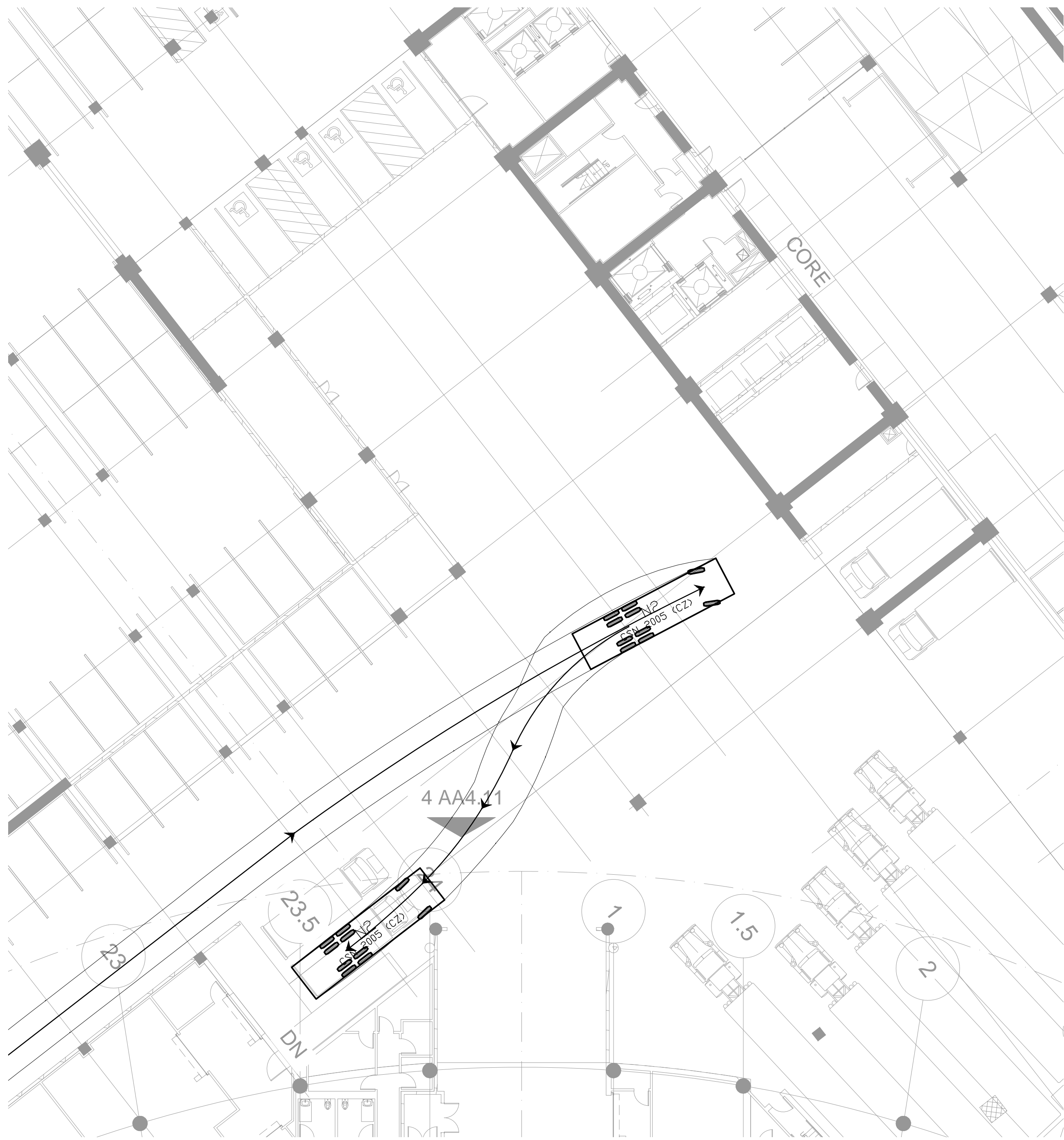




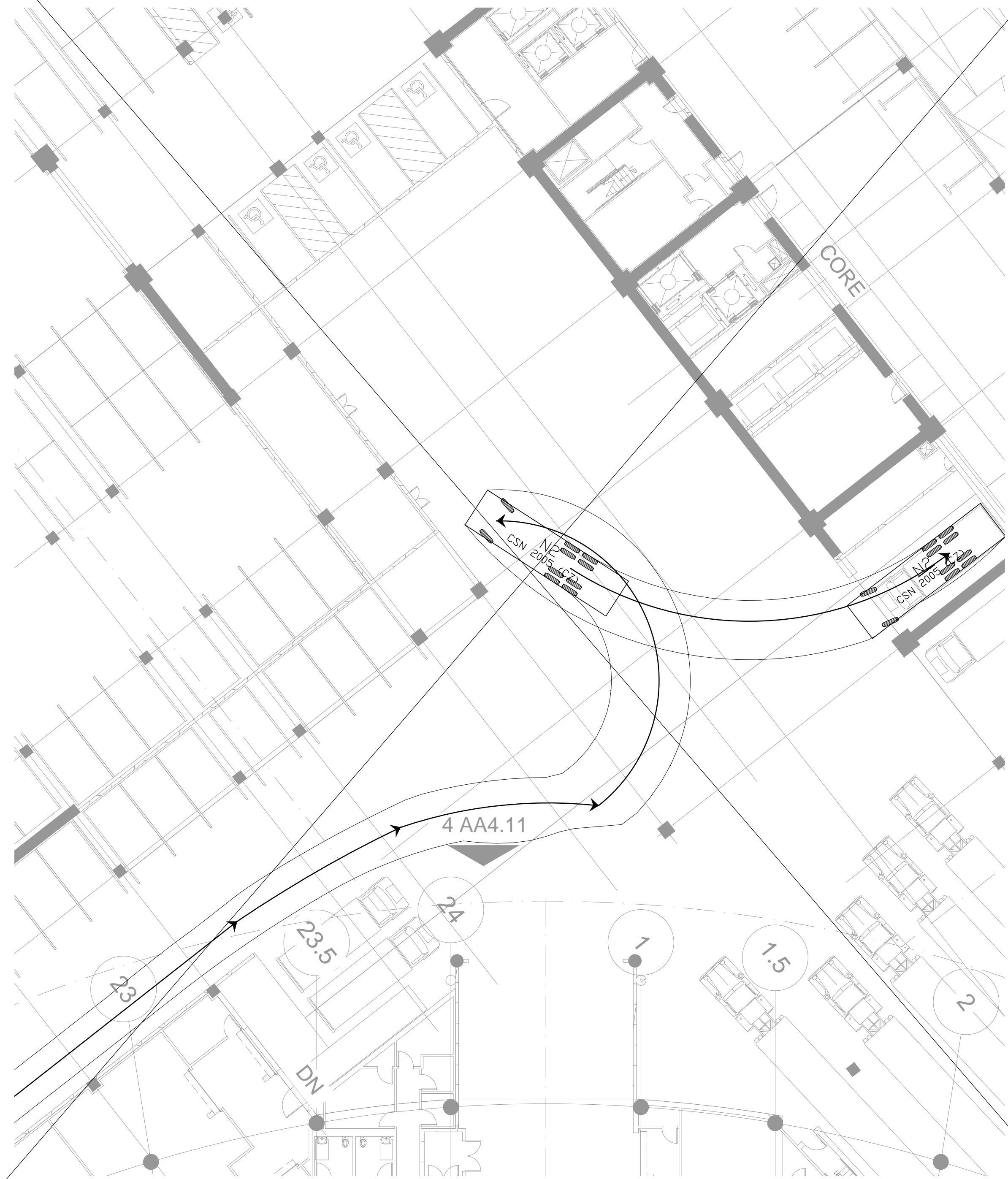




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5 SOUTH STREET RETAIL TRUCK - 2  
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6 ARENA TRASH TRUCK - 3  
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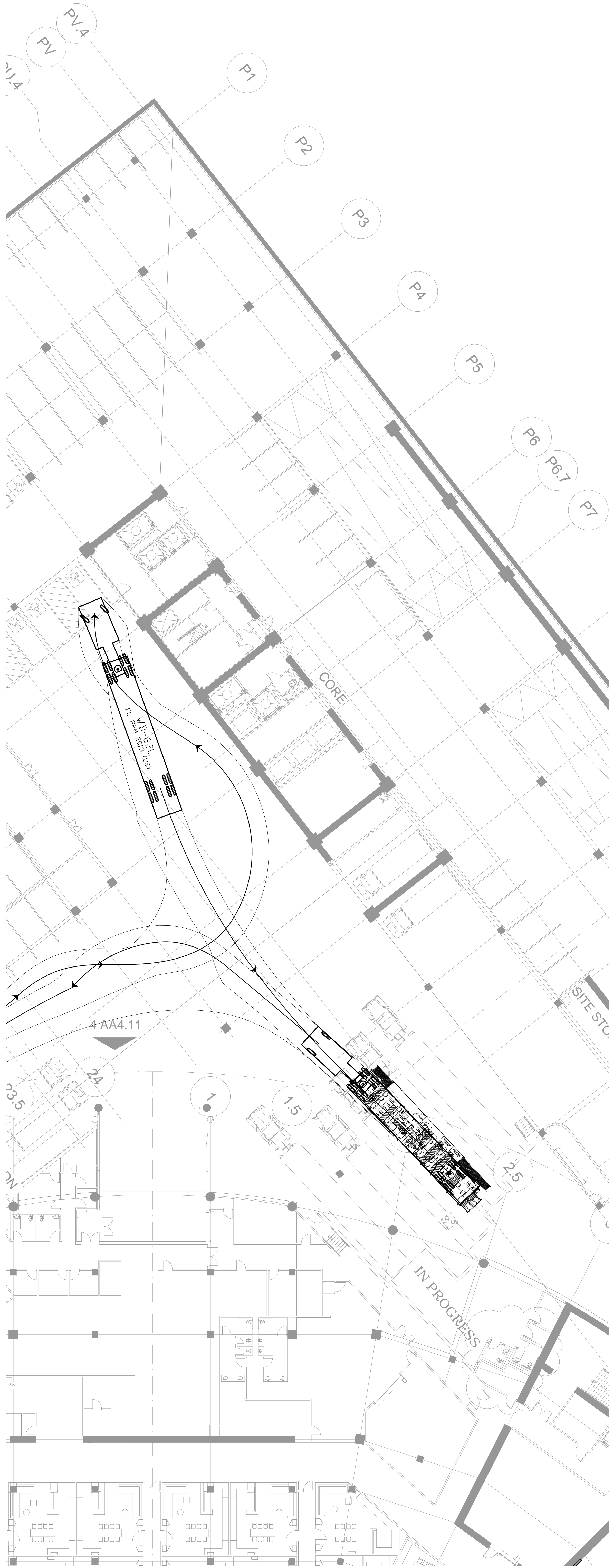
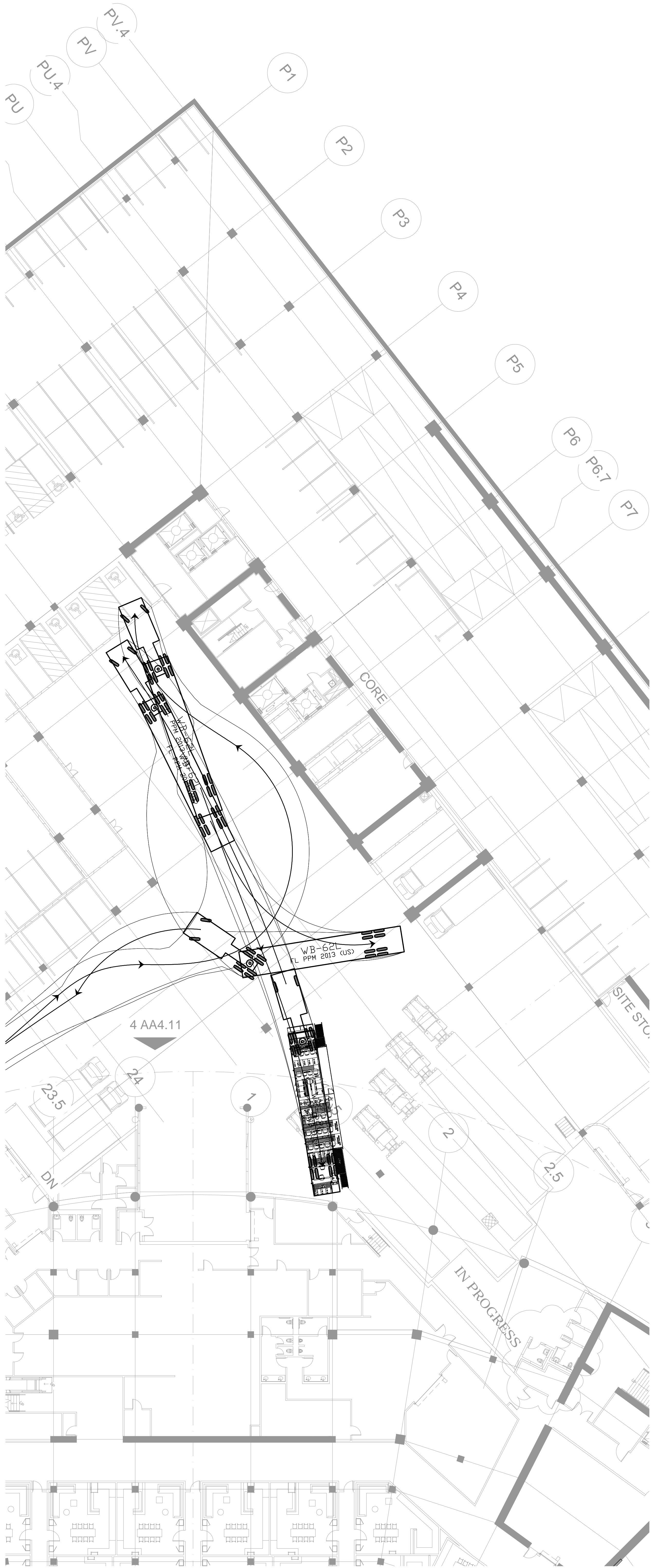
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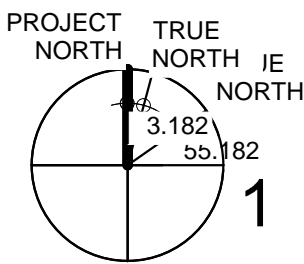




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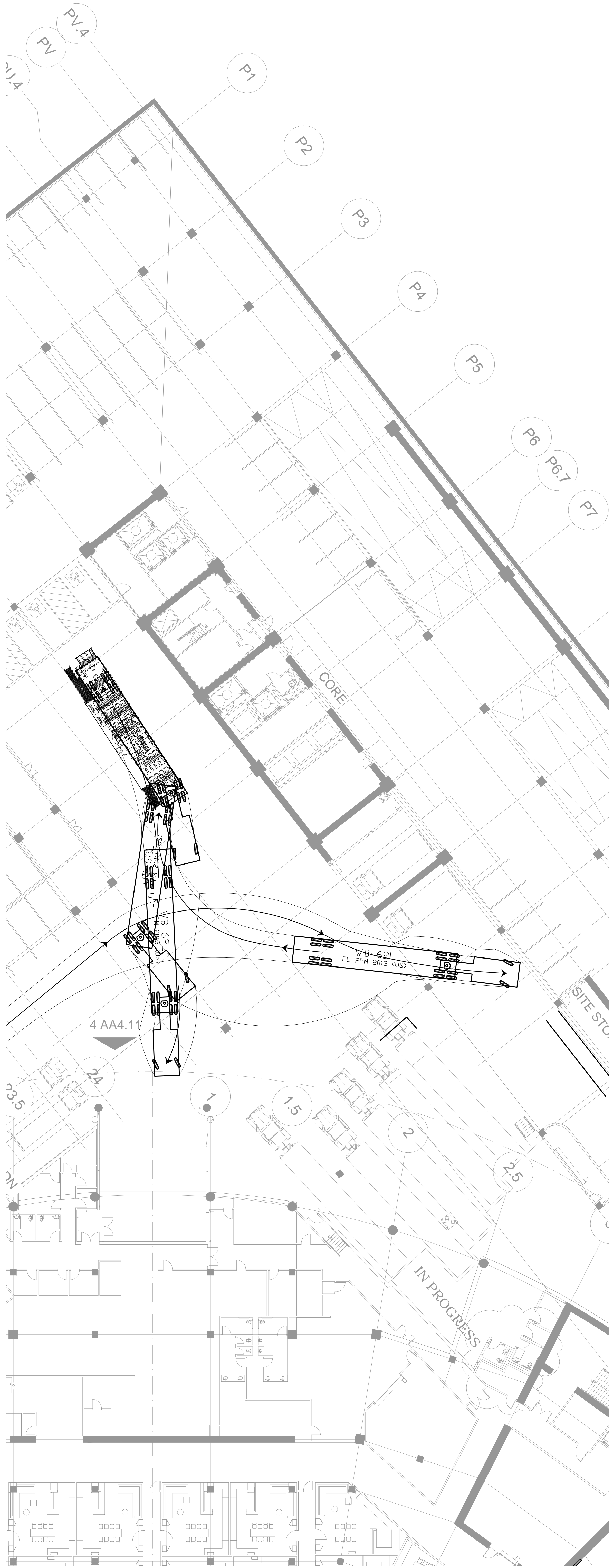
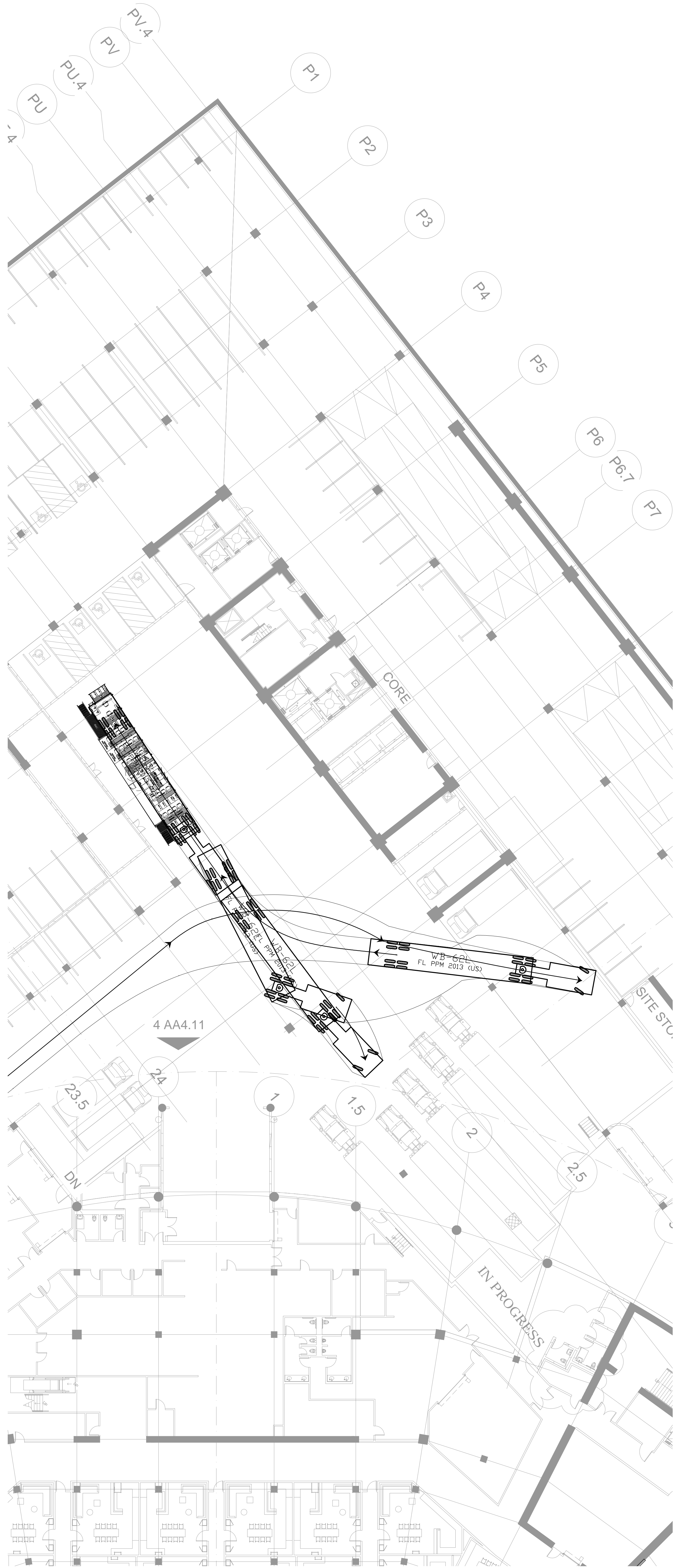
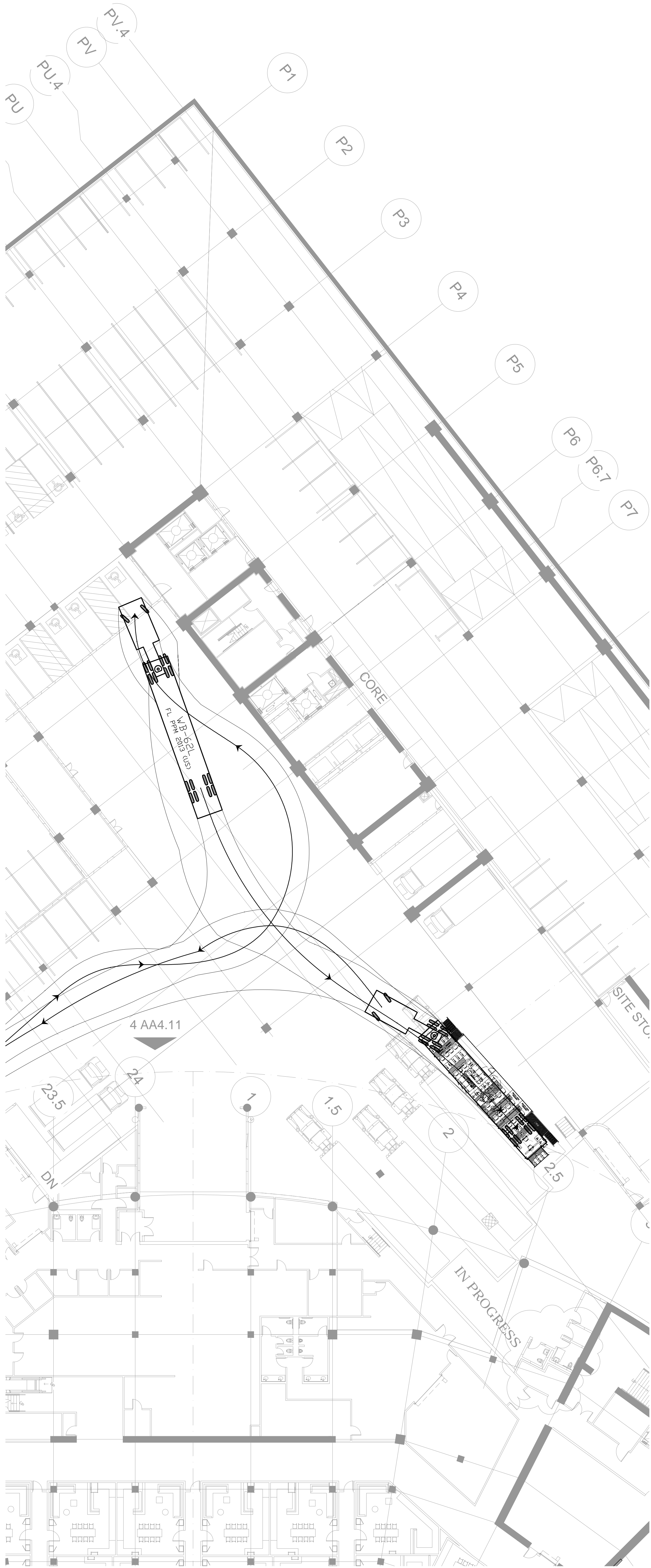
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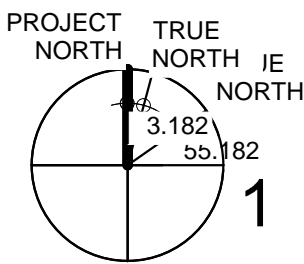




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location has failed to consider the effects of train crossings of Sixteenth Street, which could cause traffic on Sixteenth to queue into the intersections of Sixteenth with Owens and Sixteenth with Fourth, which are intersections crucial to hospital access, both emergency and normal. The response is inadequate. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-29]*)

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### **Emergency Response and Hospital Access**

Our comments of November 2, 2015 concluded with the very brief remarks on SEIR Response TR – 9 which concerned comments on emergency response and UCSF hospital access. These additional comments offer more detailed observations on that response.

#### Inadequacy of Analysis of Congestion and Delay at Critical Intersection of Sixteenth – Seventh and Mississippi Streets

Response TR-9 states that under existing-plus-Project conditions, the majority of the study intersection in the vicinity of the Project site and the UCSF Medical Center Phase One site are projected to operate at LOS E or better. The exception is the intersection of Seventh, Mississippi and Sixteenth Streets which would change from LOS E to dysfunctional LOS F. The problem with the response is twofold. First, this overburdened intersection is on the primary emergency access routes to the UCSF hospitals from the East Bay, Downtown San Francisco, SOMA and most of the central and northern parts of the City. Hence, the so called “exception” is actually a critical failure. Second, the SEIR’s analysis of the intersection understates the level of congestion there because it fails to account for the portion of time when train movements at the adjacent at-grade crossing block movements on Sixteenth. In the 5 –to – 6 pm commute peak hour, according to current Caltrain schedules, between 10 and 12 trains preempt this crossing, and 9 to 10 in the 6 – to – 7 pm hour. This means that the Sixteenth Street leg of the intersection will be blocked for about 9 minutes or more in the 5 –to-6 pm peak and about 7.5 minutes or more in the 6 – to – 7 pm hour. In other words, movements to and from Sixteenth east of the subject intersections will be blocked between 12.5 and 15 percent of the time in these hours – and the effect of this blockage wasn’t accounted for in the SEIR analysis.

#### Lack of Any Traffic Analysis of Intersections of Eighth – Harrison and Eighth – Bryant and Related I-80 Ramps That Are on Critical Access Routes to UCSF Hospitals

Another problem with the SEIR response regarding the Project’s effects on emergency response and emergency access is that the SEIR failed to analyze the complex of the intersections of Eighth with Harrison and Eighth with Bryant and their related I-80 ramps at all. These heavily congested intersections are on the primary emergency access routes to the UCSF Mission Bay hospitals from the East Bay and from Downtown, most of the SOMA and northern San Francisco. The access route via these intersections on Eighth are particularly crucial whenever there is an overlapping Giants event that tends to preempt access via the Third/Fourth Street corridor.

#### SEIR’s Underestimate of Numbers of Arena Event Attendees Traveling in 5-to-6 PM Evening Commute Peak Conceals the Extent of Impact on Emergency Services and Access to UCSF Hospitals

The SEIR, based on data on time of turnstile entry to the “paid” area of the Warriors current venue, Oracle Arena and at the Barclay Center in Brooklyn (home count of the Nets), that only about 5 percent of weekday arena event attendees traveling to an event starting at 7:30 pm would be traveling on the transportation system between 5 and 6 pm (the pm commute peak hour). Our comments of July 26, 2015 and November 2, 2015 presented cogent reasons why those turnstile based assumptions grossly understate the number of attendees to a 7:30 pm start basketball game would be traveling on the transportation system in the 5-to-6 pm peak commute hour. Those reasons include:

- The offset between getting off the transit system or out of a car in a parking spot and the time of actual passage through the ticket turnstiles, even for people who go straight in after arrival,



- The offset between arena turnstile passage time and the actual duration of travel time on the transportation system that would put people on the system during the peak hour.
- The offset between turnstile passage time and actual arrival time in the arena area for those who go into nearby restaurants and bars to eat a meal or have a drink before entering the arena or those who just hang around outside to meet up with friends traveling independently, especially perhaps to exchange a ticket.

The SEIR has ignored these considerations and persisted in assuming that only a tiny fraction of arena attendees would be traveling in the 5-to-6 pm evening commute peak hour.

In our prior comments, we have pointed out that national TV broadcasts of weeknight Warrior games which typically start at 6 pm, (and possibly national broadcasts of other arena events) would also cause a very high portion of event attendees to be traveling in the 5-to-6 pm commute peak hour and requested that this be analyzed as a separate case in the SEIR. The SEIR persists in refusing to consider this scenario.

Both of these considerations – the attendees who travel to the Project area long before passing through the arena turnstiles and the attendees coming to a national TV game start – would intensify emergency service and hospital access problems in the 5-to-6 pm commute peak hour well beyond anything analyzed in the SEIR and most importantly, compound the critical emergency service and UCSF hospital access problem issues related to the Sixteenth – Seventh – Mississippi – Caltrain rail crossing complex as well as the Eighth – Harrison / Eighth – Bryant / I-80 ramps complex as described above.

#### The SEIR Refuses To Quantify Impacts on Emergency Vehicle Travel

Another commenter requested that the SEIR estimate emergency vehicle travel times with and without an event for the proposed Project. SEIR Response TR-9 refuses to do so. It claims that because the infrastructure supporting UCSF hospital facilities is currently incomplete, such a projection is it [sic] feasible. We note, however, that the SEIR has not hesitated to estimate LOS and delay times on the incomplete roadway network for ordinary predictions of Project traffic impacts (for instance, at Owens and Sixteenth without Owens yet connected through to Mariposa). This inconsistency is an unacceptable evasion. If the SEIR is unable to estimate emergency response time, then the entire analysis of effects on all emergency services is without foundation, uselessly conclusory and inadequate.

#### Public Relations Response To Emergency Access Impacts Irrelevant

SEIR Response TR-9 continues, stating that strategies to provide attendees with suggested driving routes to and from the 950 parking spaces within the Project site would alleviate interference of that traffic with emergency vehicle traffic. However, most of the on-site spaces would be held by VIP season ticket holders. These drivers will determine quickly various routes that work to their own advantage to minimize their own travel time, rather than following suggested routes to fine-tune recommended event access/egress routes that avoid primary emergency vehicle routes. The notion that pre-event and post-event recommended driving routes all could be revised based on monitoring is nonsense because knowledgeable regular attendees will follow their own notion of what works best for them, not public relations advisories.

#### Effects of Event Coordinator and PCO Management Doubtful

The next section of SEIR Response TR-9 indicates that at the times when northbound lanes of Third Street closed in between Sixteenth and South Streets (mostly during post-event times), PCO's would be available to open the emergency barricades to allow northbound emergency vehicle traffic through. While the PCOs may get the emergency barricades out of the way, whether they can safely clear swarming pedestrians from the "closed" street section is an open question.

The response indicates that the Event Transportation Coordinator would inform emergency service dispatchers of the dates and times when there would be temporary closure of Third Street following an event so that emergency vehicles could be advised to take routes other than Third Street.



However this is not very useful if the location of the emergency dictates that emergency services really need to travel on Third Street.

This response also observes that drivers must comply with California vehicle code article 21806 requiring the drivers to clear a way to for authorized emergency vehicles, drive to the right road curb, stop, and remain stopped until the emergency vehicle has passed. This is a nonsensical evasion of the key issue which is that when traffic is queued in gridlock, it becomes very difficult and potentially dangerous for drivers to clear the way for emergency vehicles.

For smaller events where there are fewer PCOs, the response claims that PCOs would be stationed at key locations monitoring traffic conditions and could be reassigned to respond to conflicts between event center traffic and UCSF hospital access. It is questionable that PCOs could relocate quickly enough to be of effective assistance in an emergency access matter at another location.

#### Effective Facilitation of Privately Driven Vehicles in Emergencies Doubtful

The next section of the ResponseTR-9 claims that persons accessing UCSF medical Center emergency room and Urgent Care Center using private vehicles rather than authorized emergency vehicles would be able to use the transit-only lanes provided for the 22 Fillmore transit priority on 16th Street. This begs the questions of how anxious non-professional drivers, probably making their first emergency trip of this nature, would know the bus lanes are there, that they're eligible to use them, or how they will safely get around the lumbering, overloaded buses using the lanes and how they would be distinguished from casual bus lane violators.

#### Failure to Address Access to Hospitals for Doctors, Other Caregivers and Support Staff

UCSF's comments on the DSEIR included the observation that adverse traffic impacts on the hospitals is not limited to emergency vehicles. Doctors, other care-givers and support staff must have reasonably unobstructed access to and from the facilities at all times. Nowhere does the SEIR address this issue.

#### **Conclusion**

Because of all of the foregoing, the SEIR's conclusions regarding the Project's impacts on emergency access are unsupported and unsupportable. A more realistic appraisal of the Project's impacts on emergency service and hospital access is required as is a more realistic set of mitigation measures. (*Mission Bay Alliance, Soluri Meserve, letter, November 10, 2015 [O-MBA27S9-7]*)

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### **Response to Late Comment TR-13: Emergency Vehicle Access Impacts**

As described in the SEIR and RTC document, 16th Street will have a transit-only lane, as well as one mixed-flow travel lane in each direction, which would provide adequate room for vehicles to pull over to the side of the road and for emergency vehicles to pass. Because emergency vehicles are not subject to intersection delays (i.e., emergency vehicles turn on the siren, cars pull over to the side, and emergency vehicles drive past stopped vehicles and through intersections without having to stop at a red signal), the poor operating conditions at the intersection of Seventh/Mississippi/16th without and with the project would not substantially affect emergency vehicle access to the UCSF facilities. Increases in the number of times the Caltrain gate across 16th Street is down due to the Caltrain electrification project, thus restricting emergency vehicle access across the tracks, would be an impact of the Caltrain project and not the proposed project, and, as noted above, once the gate is raised, emergency vehicles would be able to bypass stopped vehicles, and would not be subject to delays experienced by other vehicles. Because emergency vehicles are not subject



to intersection delays, the SEIR did not include an intersection LOS analysis at the intersections of Eighth/Harrison/I-80 westbound off-ramp and Eighth/Bryant/I-80 eastbound on-ramp. A large volume of vehicles currently passes through these intersections during the peak commute periods, and emergency vehicle access without and with the project would be similar to what occurs under existing conditions.

See Response to Late Comment TR-4 above regarding time of travel of event attendees. The travel demand estimates for the event center were based on data from other comparable venues, and the SEIR assumed that twice as much travel would occur during the 5:00 to 6:00 p.m. peak hour compared to the average of arrivals for the existing Barclays Center in Brooklyn, New York, which is located in a similar urban setting. Thus, the SEIR does not underestimate the number of attendees traveling during the peak hour. The number of basketball games starting at 6:00 p.m. would be limited, and a separate intersection analysis scenario for an earlier start time than the 7:30 p.m. start time assumed for the Basketball Game scenario is not required to assess emergency vehicle access impacts.

Emergency vehicles are not subject to the intersection delays estimated as part of the intersection LOS analysis, and therefore, it is not possible to determine emergency vehicle travel times for conditions that would exist without and with operation of the event center using the output from the intersection LOS analysis results. The commenter does not provide a methodology, other than referring to the intersection LOS analysis, on estimating emergency vehicle travel times, and standard environmental review for development projects, including event venues, does not include quantification of emergency vehicle travel times. Furthermore, as stated in the SEIR and the RTC document, emergency vehicles use sirens to direct drivers to move out of the path of the emergency response vehicle.

Pre-event and post-event vehicular traffic destined to park at the on-site garage containing 950 parking spaces would be managed to minimize impacts on UCSF facilities. The TMP for the event center includes strategies to provide attendees with suggested driving routes to and from the garage. Examples of strategies include website, emails, and smart phone applications. For example, during pre-game conditions, attendees driving from the south of the project site exiting at the I-280 northbound off-ramp would be directed to use Mariposa Street, rather than Owens Street and 16th Street, to reduce congestion during UCSF's shift changes. For post-event conditions, attendees heading to the south would be encouraged to use Mariposa, Illinois or Third Streets, and not 16th or Owens Streets, to access the I-280 southbound on-ramp. As specified in the TMP, the pre-event and post-event recommended routes would be subject to revision based on monitoring.

While the commenter believes that regular attendees would not follow suggested/recommended driving routes to and from the event center garage, it is likely that some attendees would, including non-regular attendees at non-Golden State Warriors events. Regardless of the commenter's opinion of driver behavior in San Francisco, public information campaigns are among a menu of transportation tools commonly used in managing travel and limiting and managing vehicular traffic congestion for large events.



The SEIR and RTC document indicate the availability of alternative routes for events that necessitate closure of the northbound travel lanes of Third Street between 16th and South Streets (generally events with 14,000 or more attendees) for post-game conditions for a period of one to two hours, depending on the size of the event. When the road closure is in effect, emergency vehicles would be able to use Fourth Street or Terry A. Francois Boulevard to travel northbound. In addition, emergency vehicles would also be able to travel on Muni's light rail right-of-way in the median or northbound within the southbound lanes on Third Street. If necessary to access the closed section to directly access adjacent uses, emergency vehicles traveling northbound on Third Street would be permitted to continue through the closed segment, as PCOs would be able to remove the temporary barriers. This is a standard procedure required for roadway closures for events and construction activities. For smaller events, PCOs would monitor traffic conditions, and would be reassigned to respond to conflicts between event center traffic and UCSF hospital access, such as the emergency room and urgent care center facility access at the intersection of Fourth/Mariposa. PCOs would make sure that vehicle queues on Mariposa Street do not block access to the Fourth Street entrance. PCOs would not be reassigned to, or responsible for, providing assistance for a specific emergency trip to UCSF by emergency or non-emergency vehicles.

Drivers arriving at the UCSF hospital with urgent but not emergency conditions would be able to take advantage of the Local/Hospital Access Plan as well as the network of PCOs being implemented as part of the proposed project. Drivers would be able to explain their situation to the first PCO that they encounter in their path, who would then be able to radio to other PCOs ahead and facilitate the movement of the vehicle. In more extreme cases of emergency, PCOs could direct private vehicles to use transit-only lanes under PCOs control, such as those on 16th Street.

Under existing plus project conditions, the majority of the study intersections in the vicinity of the project site and the UCSF Medical Center Phase 1 are projected to operate at LOS D or better, and gridlock conditions are not projected to occur before or following an event. As noted in the SEIR and in the RTC document, emergency vehicles would be able to use any travel lane, including the transit only lane on 16th Street to access the UCSF facilities.

Therefore, for these reasons, the proposed project would not result in a substantial increase in vehicle delay for emergency vehicles or other persons accessing the emergency room and urgent care center in their personal vehicles. Doctors, other caregivers and support staff would have reasonably unobstructed access to the UCSF facilities, and increases in travel times may be an inconvenience for those that drive to or from the project vicinity, including UCSF facilities, and may result in somewhat longer travel times, but would not result in a significant impact on the environment, or impair emergency vehicle access. As described in the RTC document, the City, project sponsor, and UCSF have developed a Local/Hospital Access Plan, which has been incorporated into the project TMP to ensure that inbound access to the Mission Bay Area by residents, employees and UCSF staff during the weekday 6:00 to 7:00 p.m. evening period, when the maximum inbound project demand is expected to occur and which coincides with the UCSF staff shift, is not substantially delayed as a result of event-related traffic.



In addition to the Local/Hospital Access Plan, additional strategies have been identified by the City, UCSF, and the project sponsor that could be implemented during non-Golden State Warriors overlapping events to minimize the impacts during the pre-event period. On November 3, 2015, the SFMTA unanimously approved a resolution (Resolution 15-154) agreeing to the Designated Overlapping Events Transportation Strategies and the Event Center Expenditure Plan for transportation capital and operating costs of providing transit, traffic enforcement, street sweeping and public safety services outside the premises are fully funded through the life of the project. If adopted by the Board of Supervisors on December 8, 2015 as expected, the ordinance would establish a Designated Overlapping Event Reserve Account to fund transit enhancements and traffic enforcement costs of servicing non-Golden State Warriors events at the event center that occur on the same weekday evening as a SF Giants evening game. The ordinance would authorize an annual deposit of funds for the useful life of the event center. The Designated Overlapping Event Reserve Account would be used to implement supplemental transportation management actions, including a number of measures noted in comments, such as providing additional Mission Bay TMA and event-specific shuttle service. General categories of the types of measures that would be implemented include: separation of traffic destination, increased transit capacity, increased capacity of other modes, reduction in transit costs, disincentives to driving, incentives for alternative modes, and increased marketing efforts. On October 7, 2015, the Golden State Warriors and the University of California San Francisco (UCSF) signed a Memorandum of Understanding (MOU) agreeing to restrictions on the scheduling of certain large weekday non-Golden State Warriors events at the event center that start within an hour of a SF Giants home game. Specifically, if the City and the Golden State Warriors make the transportation improvements and transportation demand management strategies detailed in the aforementioned MOU, in Board of Supervisors File 150995 establishing a Mission Bay Transportation Improvement Fund, and in the SFMTA Board Resolution 15-154, and these do not reduce traffic delays to below unacceptable levels as defined in the MOU, the Golden State Warriors agree to hold no more than 12 large non-Golden State Warriors evening events that start before 8:00 p.m. on a weekday night with a SF Giants home game in the subsequent calendar year. No other venue in the NBA has a similar restriction on the ability to schedule events.

Because the SEIR did not identify a significant impact on emergency vehicle access, no mitigation measures are required. Improvement Measure I-TR-10a: UCSF Emergency Vehicle Access and Garage Signage Plan and Improvement Measure I-TR-10b: Mariposa Street Restriping Study were included in the SEIR for consideration by City decision makers to further reduce the proposed project's less-than-significant impacts related to emergency vehicle access.

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## Issues Raised by Late Commenters on Construction-related Transportation Impacts

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-30      O-MBA29L12-1

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### Section 13.11.6 – Response TR-10

This response, which concerns construction impacts, is merely a reprise of the inadequate information and findings in the DSEIR that prompted our and several other comments. Of particular concern is the failure to address construction impacts associated with the reconstruction of the LRT station by the Project site on Third Street, a reconstruction which poses impacts for ordinary traffic on Third Street, emergency vehicle traffic on Third Street and for operations of the T Third Muni LRT line itself, which may impose social justice transportation impacts on the disadvantaged communities located further south in the T Third LRT corridor. These social justice impacts in specific have not been addressed. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-30]*)

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### Central Subway/ T Third Electrical Power Distribution System Expansion

The Central Subway / T Third electrical power distribution system expansion is included in the proposed Project to provide additional traction power for expanded frequencies of LRT service associated with new special event operations. This traction power expansion feature would provide two new circuits from the existing King Street substation for the inbound and outbound circuits of the Central Subway / T Third. Providing duct banks for the new electrical connection for King Substation and the Central Subway line would involve trenching in the eastbound and westbound travel lanes of King Street between Second and Fourth Streets. This trenching would take place over a 6-month period and would require lane closures while trenching and duct installation is actively taking place. Although the power distribution system expansion had previously been identified by SFMTA as a desirable long-term action, it is now incorporated in the subject Event Center and Mixed Use Development Project.

As noted in the third paragraph of SEIR Volume 4, page 12-11, the trenching work and duct installation on King Street associated with the electrical power distribution system expansion was not analyzed in the DSEIR.

Under CEQA, if the project changes after publication of the Draft EIR, and these changes create a new significant impact not identified in the Draft EIR, or a substantial increase in severity of a significant impact that was identified in the Draft EIR, the lead agency must recirculate the draft EIR for public comment.

(CEQA section 21092.1.). Although the FEIR makes the conclusory statement that this would not result in new or more severe impacts than previously disclosed, there is no analysis to support this conclusion, which defies logic that this always busy boulevard would be unimpacted by lane closures over a period of six months. (*Mission Bay Alliance, Daniel T. Smith Jr., letter, November 13, 2015 [O-MBA29L12-1]*)

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### Response to Late Comment TR-14: Construction-related Transportation Impacts

Response TR-10 in the RTC document responds to each concern previously raised by the commenter on SEIR Impact TR-1, construction-related transportation impacts, and describes how the previous issues raised by the commenter were considered in the assessment of



construction-related transportation impacts. SEIR p. 5.2-115 describes the construction-related transportation impacts associated with the extension of the existing northbound light rail platform and associated track work within the median. Construction-related transportation impacts of the Muni UCSF/Mission Bay Station Variant are presented on RTC document pp. 12-25 – 12-26. While it is correct that construction would occur over a 14-month period, construction activities would not be continuous for the entire period. Construction activities would be limited to a shorter period of construction than 14 months, and to the extent feasible, the work would be scheduled during periods of lower passenger demand, such as on weekends, when impacts to light rail service would be less than during the weekdays.

Construction activities may result in closure of one of the northbound and/or southbound travel lanes on Third Street. Accommodation of emergency vehicle access for construction of transportation network improvements is required as part of project construction contracts. Temporary travel lane closures for short segment of Third Street would not substantially affect traffic conditions. As noted above, to the extent possible, the work would be scheduled on weekend when traffic volumes on Third Street are lower. Similarly, because the disruption of T Third service would be limited in duration and be temporary, and because the light rail service would be replaced with a bus service in order to maintain transit access, the comment stating that these transit improvements may impose social justice transportation impacts on the disadvantaged communities south of the project site is not accurate.

Temporary transportation impacts during construction of the electric traction power upgrades to the Muni T Third and Central Subway would not result in new significant impacts or require additional mitigation measures that were not previously disclosed in the Final SEIR and therefore do not require recirculation of the Final SEIR. As noted in the RTC document on p. 12-11, construction activities along King Street would occur intermittently during the non-peak hours over the course of about six months, and not for the entire six months. Construction activities would also be limited to one block at a time, as trenching for the duct bank would occur in sections along King Street: between Second and Third Streets, and then between Third and Fourth Streets. As described on RTC document p. 12-11, King Street is identified in the SFMTA Blue Book as a Street of Major Importance, and therefore no construction work would occur during the weekday commute periods; during the a.m. and p.m. peak periods the trench for the new duct bank would be plated over, and all travel lanes would be open to vehicular traffic. For these reasons, temporary transportation impacts of construction along two blocks of King Street was determined to be less than significant.



## Issues Raised by Late Commenters on Parking

This response addresses all or part of the following comments, which are quoted below:

A-UCSF2-1

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- First, we request that the City make long-term commitments on providing the off-site parking at 19th Street and the Western Pacific sites to serve the Event Center. (*University of California San Francisco, Lori Yamauchi, letter, November 3, 2015 [A-UCSF2-1]*)
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## Response to Late Comment TR-15: Parking

On November 10, 2015 the San Francisco Port Commission unanimously adopted Resolution No. 15-42 directing Port staff to create a parking management strategy and a plan of finance and complete any necessary environmental review for the use of vacant Port property at 19th and Illinois and an underutilized portion of the Western Pacific property north of Pier 80 for overflow parking to serve the proposed event center.

Resolution No. 15-42 did not include a term for the use of these two sites as parking, although it did note that “the Port does not now have current development plans for either the Illinois Street or the Western Pacific sites, and the use of either site would neither displace existing tenants nor impair Port operations or existing public access.” Once Port staff can complete all necessary environmental review with the San Francisco Planning Department and determine any necessary capital improvements required to convert these sites to a parking use, the Port will be able to recommend a term as part of a request for proposal process to select a parking operator.

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## Issues Raised by Late Commenters on Helipad Impacts

This response addresses all or part of the following comments, which are quoted below:

A-UCSF2-3

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Third, we ask that in Mitigation Measure M-TR-9d, Event Center Exterior Lighting Plan, that the words “where feasible” be deleted. The Warriors have a large site to work with, and it seems reasonable that they could “avoid the use of light configurations similar to those associated with the UCSF helipad landing area, and locate primary outdoor lighted displays and television/lighted screens away from the project property line at 16th Street, South Street, or Third Street” without adding the qualifying “where feasible.” This is important for the safety of patients, pilots, and persons in the vicinity. (*University of California San Francisco, Lori Yamauchi, letter, November 3, 2015 [A-UCSF2-3]*)

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### Response to Late Comment TR-16: Helipad Impacts

The commenter requests that that since the Warriors have a large site to work with, the words “where feasible” be deleted as a qualifier from the measure in SEIR Mitigation Measure M-TR-9d, Event Center Exterior Lighting Plan to “(a)void the use of light configurations similar to those associated with the UCSF helipad landing area, and locate primary outdoor lighted displays and television/lighted screens away from the project property line at 16th Street, South Street, or Third Street, where feasible”.

The comment is noted. The specific measure in SEIR Mitigation Measure M-TR-9d that the commenter identifies addresses two different issues 1) the requirement to avoid any potential light configurations similar to those light configurations associated with the UCSF helipad landing area; and 2) the requirement to locate primary outdoor lighted displays and television/lighted screens away from the project property line at 16th Street, South Street, or Third Street, where feasible. With respect to issue No. 1), the sponsor is committed to avoiding the use of light configurations similar to those associated with the UCSF helipad landing area, without any qualifier. Accordingly, as a clarification in response to this comment, prior to certification of the Final SEIR by the OCII Commission, an Errata to the RTC document was prepared that removed the term “where feasible” as referencing this portion of the measure (see below for revisions made in the Errata).

With respect to issue No. 2), it is the sponsor’s intent to locate primary outdoor lighted displays and television/lighted screens away from the project property line at 16th Street, South Street, or Third Street, where feasible. The term “where feasible” is retained for this portion of the measure, given that the specific placement of each outdoor lighted display and television/lighted screen is not yet known, as the final exterior lighting plan is not yet finalized by the sponsor, and approved by OCII. However, Mitigation Measure M-TR-9d includes a performance standard that the project would not result in a substantial air safety risk and/or create a safety hazard related to helipad operations. Furthermore, as specified in Mitigation Measure M-TR-9d, all feasible measures shall be developed in consultation with SFO staff knowledgeable of the effects of lighting on pilots and safe air navigation, and OCII (or its designated representative). These factors ensure that all potential project-related lighting effects, including those related to outdoor lighted displays and screens, on helipad operations would be less-than-significant.

As indicated above, the Final SEIR, as clarified in the Errata to the RTC document, includes the modified fifth bullet under Mitigation Measure M-TR-9d, as follows [new text is shown in underline and newly deleted text is shown in strikethrough (~~strikethrough~~)]:

Avoid the use of light configurations similar to those associated with the UCSF helipad landing area, and where feasible, locate primary outdoor lighted displays and television/lighted screens away from the project property line at 16th Street, South Street, or Third Street, ~~where feasible~~



## Issues Raised by Late Commenters on Off-site Parking Mitigation

This response addresses all or part of the following comments, which are quoted below:

O-MBA27S9-8

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The revised parking analysis, SEIR Appendix TR-X, identifies additional parking areas to the south of the Project site that are not addressed in the DSEIR. We note that the nearer site, described as 'the Nineteenth Street site' in Appendix TR-X, is located within the Port of San Francisco's Port Waterfront Land Use Plan Southern Waterfront Subarea and designated as part of the Pier 70 Waterfront Opportunity Area. The site is within the Union Iron Works Historic District (listed on the National Register of Historic Places. Building 40 within the site has been determined to be a contributing resource to the Historic District although the Port has determined that its removal would not affect the historic significance of the District. The Port currently plans to construct a 250 space parking lot on the site. SEIR Appendix TR-X assumes the Port will have done so and that the parking lot will be operational prior to completion of the proposed Project and that it will be made available for use of Project arena event attendees. However, given the complications of the Historic designation, compatibility with the Pier 70 Plans and with the Port's own purposes in developing this parking for support of Pier 70 and the Historic District, the assumptions that this parking will be developed in advance of completion of the proposed Project and will be made available to support the Project's arena event parking over the long term are extremely optimistic and inconsistent with the good faith effort to disclose impact required by CEQA.

The other parking site identified in Appendix TR-X is located on the Southern Waterfront with its nearest corner 1.2 miles south of the nearest corner of the Project site. Portions of the site are located within the San Francisco Bay Conservation and Development Commission's (BCDC) shoreline band jurisdiction. The site is currently used for off-site storage of trailers supporting Moscone Center. The site could support development of an up to 800 space parking lot. Because of the distance from the proposed Project site, it would require shuttle bus service connections. Because considerations such as BCDC approval, development of a suitable place for relocating the off-site trailer parking that supports Moscone Center and whether parking this far from the proposed Project site and located in a remote industrial wasteland would be attractive to patrons have not been addressed, the suitability of this parking area remains speculative. Hence, Response TR-9's assumptions regarding dispersal of parking locations itself remains speculative.

### Conclusion

Because of the speculative nature of these parking proposals with respect to service of events at the proposed arena, they cannot be considered clear elements that support the project or disperse its traffic. (*Mission Bay Alliance, Soluri Meserve, letter, November 10, 2015 [O-MBA27S9-8]*)

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## Response to Late Comment TR-17: Off-site Parking Mitigation

Appendix TR-X in the RTC document was prepared to provide the more detailed description of the potential off-site parking lots that would serve the event center, and to identify the potential environmental impacts of implementing the off-site surface parking facilities included in SEIR Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events. Appendix TR-X presents an assessment of impacts on transportation, air quality, noise, cultural resources, hydrology and water quality, hazardous materials, and other impacts. The results on the assessment contained in the memorandum were summarized and incorporated into the SEIR as a clarification of the



impact assessment of Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events (see RTC document), and does not replace the analysis of the proposed project without the mitigation measure. As noted in the memorandum and in the SEIR, environmental review and Port approval is required for implementation of these two parking facilities.

Removal of Building 40 is not required for or contemplated as part of the parking use for the Port's site. As noted in Appendix TR-X, Building 40 at the 19th Street site was determined to be a contributing resource to the Union Iron Works Historic District; however, it was not hierarchically rated as a significant or significant among the 41 buildings in the Historic District. Further, the Port plans to remove Building 40 as part of the construction phase of the rehabilitation of the 20th Street Historic Buildings in order to permit the future development of a continuous sidewalk on the east side of the Illinois Street frontage. The Port determined, and the San Francisco Planning Department concurred, that Building 40's removal would not affect the historic significance of the Historic District. If Building 40 were to remain, it would not affect the capacity (i.e., the number of parking spaces) or access points of the proposed parking lot.

As noted in Appendix TR-X, the existing uses on the Western Pacific site related to the Moscone Center, staging of trucks for the event center, and surface parking for 800 vehicles could be accommodated within the Western Pacific site. The area available to accommodate these uses accounts for BCDC's shoreline band jurisdiction, and therefore relocation of the existing truck staging would not be required (although, as noted in Appendix TR-X, truck staging could also be relocated to Pier 96). Use of the Western Pacific site for parking and truck staging would not be subject to BCDC approval. The commenter is correct that the Western Pacific site is within an industrial area; however, free shuttle buses would be provided for attendees that would transport them directly from the parking facility to the event center. The Western Pacific site would be used during overlapping events, and due to the increased demand for parking spaces during overlapping events, it is anticipated that the off-site facility would be utilized despite of its generally industrial location.

The commenter is incorrect in stating that the SEIR assumes that these two off-site parking facilities would be implemented as part of the project. Instead, as noted above, Appendix TR-X and discussion within the RTC document provided additional clarification on the environmental impacts of implementing Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events. Impact TR-11 on SEIR pp. 5.2-171 – 5.2-180 presents the analysis of project impacts for conditions without implementation of these two parking facilities.



## SECTION 9: RESPONSES TO LATE COMMENTS ON NOISE

The comments and corresponding responses in this section cover topics analyzed in SEIR Section 5.3, Noise and Vibration, as augmented in RTC document Section 13.12. These include topics related to:

- Issue NOI-1: Noise Significance Thresholds
- Issue NOI-2: Noise Impacts of Project Refinements and New Variant

### Issues Raised by Late Commenters on Noise Significance Thresholds

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-9      O-MBA20L7-50      O-MBA20L7-52

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#### **A. The Construction Refinements and New Project Require Recirculation.**

As noted above, the RTC describes a number of “construction refinements,” including using dewatering generators, using a soil treatment pug mill, and removing rapid impact compaction from the construction plan and a new Project Variant. With respect to the air quality impacts of these construction refinements and new Project Variant, the RTC finds these changes do not create a new significant noise impact, or a substantial increase in severity of a previously identified significant noise impact, and therefore, recirculation is not required.

As described in the letter from Frank Hubach (Exhibit S), the construction refinements and new Project Variant will create new significant impacts. The RTC’s findings to the contrary reflect the same flawed “existing ambient plus project increment” thresholds of significance discussed in my previous comment letter (dated July 25, 2015) regarding noise impacts.

#### **B. The Response to the Alliance’s Comments Regarding Construction and Operational Noise Are Inadequate.**

Response NOI-2a regarding construction noise thresholds states:

For this project, as discussed on pages 5.3-17 and 5.3-18, the SEIR applies a threshold of a 10 dBA increase over the existing noise levels, which represents a perceived doubling of loudness as the threshold representing a substantial temporary increase in noise levels warranting implementation of construction noise control measures. A more liberal threshold was developed to be applied to construction impacts given that construction is an inherently noisy activity and application of a lesser threshold, such as the 5 dBA increase applied to operational impacts which denotes a readily perceptible increase, would be exceeded by the most routine construction activity and is therefore not considered to be a realistically applicable criterion for construction. Additionally, a 10 dBA increase threshold is codified in Section 2909 (c) of the Police Code as a noise limit for noise affecting public property. This increase is an appropriate threshold for construction activity as it reflects OCII’s understanding that allowable increases in noise levels can be dependent on a number of factors, including source and the duration of the noise and the receiver of the noise.

(RTC, p. 13.12-7 (*italics added*).) The response regarding operational noise thresholds is similar.

(RTC, p. 13.12-15.)

This is an example of the General Comment described above. This response has injected the question of what is “allowed” into the determination of “significance.” The question of what is allowed is the final step in the CEQA process, and involves weighing considerations relating to the



social and economic benefits of the Project. Injecting it into the first step subverts the integrity of the entire analysis.

This conflation of the distinct steps in the analysis also explains why the RTC's insistence on using the San Francisco Police Code's regulatory requirements (i.e., the City's final resolution of what is allowed and what is not allowed) as thresholds of significance is inconsistent with CEQA. The Police Code's regulatory requirements reflect the City's effort to balance the protection of people from harmful noise against the need for social and economic activity. That balance does not necessarily reflect the point at which impacts become significant. Under CEQA, such balancing is also required, but not at the point where significance is determined. In short, even where the lead agency believes an activity should be "allowed" because the social or economic considerations outweigh the environmental harm, the EIR must still disclose whether the impact is significant.

The RTC's reliance on Appendix G to the CEQA Guidelines as support for its use of Police Code's regulatory requirements (RTC, p. 13.12-15) is misplaced because the Guidelines cannot authorize a violation of CEQA. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-9]*)

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In my opinion the DSEIR does not use a reliable methodology to determine whether Impact NO-1 or NO-5 is significant.

For Impact NO-1 and Impact NO-5, the DSEIR uses a threshold of significance of the "ambient plus increment" type. For Impact No-1, the "ambient plus increment" threshold of significance is whether the "the increase in noise levels over existing conditions would be less than 10 dBA." (DSEIR, p. 5.3-23.)

This type of threshold discounts the significance or severity of pre-existing noise levels and treats them as if they are irrelevant to whether the incremental change caused by the Project is "significant." Refer to additional detailed information in my 22 July 2015 report. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-50]*)

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#### **12.4 Muni UCSF/Mission Bay Station Variant**

*"Assuming use of a backhoe, jack hammer and truck crane, construction activities for the demolition of the existing northbound platform would generate noise levels of 79.4 dBA, Leq at the nearest receptor (Hearst Tower), 75 feet away, which would result in a less than 10 dBA increase over existing ambient noise levels of 71.2 dBA, Leq." (pg 12-28)*

This is an 8.2 dB increase above ambient and in my opinion significant.

Using these "ambient plus increment" thresholds where existing noise levels are already too high, as shown in Tables 5.3-9 and 5.3-10 (DSEIR, pp. 5.3-34, 36), disregards the fact that the Project will make already severe conditions worse. In addition, using these "ambient plus increment" thresholds for operational noise results in an unsustainable gradual increase in ambient noise. It is a formula for ever-increasing noise levels because each new project establishes a new, higher, baseline; then when the next project is approved, the incremental change will be added to the new baseline.

Therefore, the operational impact assessment needs to be redone using valid, science-based thresholds that relate to actual human health and welfare effects of noise.

In my opinion, is the Project will cause a significant increase in Impact NO-1 and Impact NO-5 above levels existing without the project. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-52]*)

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## Response to Late Comment NOI-1: Noise Significance Thresholds

### *Construction Noise Thresholds*

The noise analysis of the SEIR applies two different quantitative thresholds to determine whether construction-related noise impacts would be significant. If construction-related noise exceeds either of these thresholds, then the impact is considered significant.

First, construction-related noise is considered significant if it will result in a 10 decibel increase over existing conditions. (Draft SEIR, pp. 5.3-17 to 5.3-18.) This increase over existing conditions is reasonable because it represents a perceived doubling of loudness<sup>1</sup> which can be applied to the noise generated by multiple pieces of equipment operated simultaneously. A quantitative threshold based on perceived loudness and derived from regulatory guidance is an appropriate threshold under CEQA.

Second, construction-related noise is considered significant if a piece of equipment will be operated so that it results in a noise level in excess of 80 dBA at 100 feet. This quantitative limit on noise from construction equipment is derived from the San Francisco Noise Ordinance and the Mission Bay Good Neighbor Construction Noise Policy. (Draft SEIR, pp. 5.3-16 to 5.3-17.)

The standards set forth in an agency's noise ordinance or in adopted noise policies is an appropriate threshold under CEQA. (*Mount Shasta Bioregional Ecology Center v. County of Siskiyou* (2012) 210 Cal.App.4th 184, 204-207; *National Parks & Conserv. Assn. v. County of Riverside* (1999) 71 Cal.App.4th 1341, 1353.)

As a result, a construction-related increase over ambient conditions of less than 10 dBA would nevertheless result in a significant impact if it results in an exceedance of the maximum temporary noise level (80 dBA at 100 feet). Alternatively, even where the incremental increase in the ambient conditions resulting from project construction activities does not exceed the maximum temporary noise level (80 dBA at 100 feet), construction noise impacts would nevertheless be considered significant if the increase over ambient conditions exceeds 10 dBA.

The SEIR does not rely solely on compliance with these regulatory standards to determine whether noise impacts are considered significant. The analysis for construction-related noise impacts also discusses the Mission Bay Good Neighbor Policy. This policy is described at page 5.3-15 of the SEIR. This policy has the effect of imposing additional limits on the days and hours when noise-generating construction activities can occur. This policy applies to the project and would limit extreme noise-generating activity to 8:00 a.m. to 5:00 p.m., Monday through Friday and prohibit such activity on Saturdays, Sundays, and holidays. Please also refer to the response on page 13.12-6 of the RTC document. A limit on the hours when construction-related noise generating activities can occur is an appropriate threshold for determining whether these impacts will be significant. (*Sierra Club v. Tahoe Regional Planning Agency* (E. D. Cal. 2013) 916 F.Supp.2d 1098, 1146-1151.)

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<sup>1</sup> Caltrans, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, p. 2-44.



Comment O-MBA20L-50 states the opinion that use of an increase over ambient threshold is not a reliable methodology. Please refer to the detailed responses to this topic beginning on page 13.12-6 and page 13.12-14 of the RTC document. The comment suggests different thresholds of significance that, in the commenter's view, should have been used to assess the severity of construction noise impacts (e.g., World Health Organization standards). The commenter's disagreement over the methodology used in the SEIR is noted. However a lead agency has discretion to choose the proper significance threshold and does not violate CEQA when it chooses to reject different thresholds proposed by a project opponent. (See *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 335-336 ("CREED") [rejecting petitioners' argument that the City erred by not applying a different significance threshold]; *California Oak Foundation v. Regents of University of California* (2010) 188 Cal. App. 4th 227, 282 [rejecting petitioner's argument that a lead agency used the incorrect significance threshold in evaluating the biological significance of tree impacts]; *National Parks & Conservation Assn. v. County of Riverside* (1999) 71 Cal. App. 4th 1341, 1356-1357 [upholding a biological significance threshold used by Riverside County as supported by substantial evidence].)

Appendix G of the CEQA Guidelines calls for assessing whether the proposed project would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. (CEQA Guidelines, Appendix G, ¶ XII(d).) The criterion set forth in Appendix G are not binding significant thresholds that an agency must use to determine whether an impact is significant. (CEQA Guidelines, § 15063, subd. (f); *Save Cuyama Valley v. County of Santa Barbara* (2013) 213 Cal.App.4th 1059, 1068.) In this case, however, OCII has exercised its discretion to incorporate this criterion into its significant thresholds for construction noise. This potential impact is addressed in Impact NO-1 (SEIR pp. 5.3-20 to 5.3-23). Here CEQA indicates that the appropriate threshold to be applied could be an increase over existing ambient noise levels without the project but leaves the determination of the quantitative threshold to be applied at the discretion of the lead agency. As noted above, for this project, as discussed on pages 5.3-17 and 5.3-18, the SEIR applies a threshold of a 10 dBA increase over the existing noise levels, which represents a perceived doubling of loudness as the threshold. Use of an ambient plus increment threshold is also codified in Section 2909 of the San Francisco Police Code, and represents a substantial temporary increase in noise levels warranting implementation of construction noise control measures. Thus use of an increase over ambient as a tool for assessing impacts is the suggested approach in the CEQA Guidelines and also the approach used in the City's regulations for controlling noise increases.

#### ***Muni UCSF/Mission Bay Station Variant***

Comment O-MBA20L7-52 opines that an increase of 8.2 dBA over ambient should be considered a significant noise impact. The commenter thus appears to conclude that a quantitative threshold may be appropriate, but that a quantitative threshold of 10 dBA is too high. OCII disagrees with this comment, and concludes a 10 decibel increase over existing conditions for assessment of construction noise impacts is an appropriate threshold. This increase over existing conditions is reasonable because it represents a perceived doubling of



loudness<sup>2</sup> and is codified in Section 2909 (c) of the Police Code as a noise limit for noise affecting public property. OCII understands therefore, that noise levels above this limit have been determined to be unacceptable from a community perspective and below this limit may be acceptable and further, reflect an acceptable noise increase for temporary or periodic outdoor activities as might occur on public property. A more liberal threshold was developed to be applied to construction impacts than noise impacts of a continuous operational nature in consideration of the necessary temporal limit of construction impacts. OCII reaches this conclusion based on the urban setting, on temporary character of the noise (during construction only), and on the temporal limits on when particularly loud construction equipment can be used (8:00 a.m. to 5:00 p.m., Monday through Friday).

Please see Response to Late Comment NOI-2, below, for a discussion of the operational noise increases associated with the Muni UCSF/Mission Bay Station Variant.

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### Issues Raised by Late Commenters on Noise Impacts of Project Refinements and New Variant

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-9      O-MBA20L7-51

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#### **A. The Construction Refinements and New Project Require Recirculation.**

As noted above, the RTC describes a number of “construction refinements,” including using dewatering generators, using a soil treatment pug mill, and removing rapid impact compaction from the construction plan and a new Project Variant. With respect to the air quality impacts of these construction refinements and new Project Variant, the RTC finds these changes do not create a new significant noise impact, or a substantial increase in severity of a previously identified significant noise impact, and therefore, recirculation is not required.

As described in the letter from Frank Hubach (Exhibit S), the construction refinements and new Project Variant will create new significant impacts. The RTC’s findings to the contrary reflect the same flawed “existing ambient plus project increment” thresholds of significance discussed in my previous comment letter (dated July 25, 2015) regarding noise impacts. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-9]*)

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#### **12.2.1 Generator Relocation**

*“Because the generators would no longer be in a sub-grade location with the project refinements, the potential noise impacts of the routine generator maintenance operations at the at- or above-grade locations were assessed quantitatively, as described below.” (pg 12-2)*

The generator relocation does not specifically address (in terms of decibels) the potential impact to pedestrians, bicyclists or motorists when in close proximity to the generators. Only the two large

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<sup>2</sup> Caltrans, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, p. 2-44.



150 kW generators are fitted with noise control treatments which will have some localized benefit. This is potentially significant impact.

### **12.2.3 Transportation Improvements**

*"Similarly, the temporary impacts of construction noise would be limited to standard construction equipment such as a backhoe and jackhammer, which would not be expected to result in a significant construction noise impact, as these equipment types comply with the construction noise limits of the Sections 2907(a) and (b) of the Police Code, as discussed on page 5.3-14 of the SEIR and would occur in an area with elevated ambient background noise based on modeled baseline traffic volumes derived from the San Francisco County Transportation Authority travel demand model." (pg 12-11)*

This work along King Street has an unspecified noise impact that is in my opinion potentially significant.

### **12.3.2 Other Construction Refinements**

*"Refinements to the proposed construction techniques that were described in the Draft SEIR include: addition of on-site soil treatment, possible use of dewatering pump generators, and removal of rapid impact compaction equipment." (pg 12-16)*

The dewatering pump generators added do not specifically address (in terms of decibels) the potential impact to pedestrians, bicyclists or motorists when in close proximity to the generators. This is potentially significant impact.

*"The pug mill would be enclosed within a large canvas tent to control dust and noise generated by the plant." (pg 12-17)*

It is unlikely the tent will attenuate any pug mill noise. This is potentially significant impact. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-51]*)

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## **Response to Late Comment NOI-2: Noise Impacts of Project Refinements and New Variant**

### ***Construction Refinements / New Project Variant Noise Impacts and Recirculation***

**Project Refinements, Construction Impacts.** Comment O-MBA20L7-9 states that the noise impacts related to the additional construction refinements and the MUNI Variant warrant recirculation of the Draft SEIR. As stated on page 12-20 of the RTC document and the revised Table 5.3-9 in Chapter 14, cumulative construction noise levels would actually decrease when the removal of rapid impact compaction activities is considered in combination with pug mill operations and operation of dewatering generators. That is, the combined effect of the construction refinements will be to reduce construction noise, as compared to the noise levels identified in the Draft SEIR. The Draft SEIR concluded that these construction-related impacts would be less than significant and do not require mitigation. Compliance with the Mission Bay Good Neighbor Construction Noise Policy is identified as an Improvement Measure, and has been incorporated into the project and made enforceable by the Mitigation Monitoring and Reporting Program. This Improvement Measure will continue to apply, even though the construction refinements serve to reduce construction noise. Consequently, construction refinements would actually reduce the less than significant impact identified in the SEIR. Therefore, recirculation of a revised Draft SEIR is not required. (CEQA Guidelines, § 15088.5.)

**Muni UCSF/Mission Bay Station Variant, Construction Impacts.** As stated on page 12-28 of the RTC document, the replacement of the existing high-level northbound and southbound



passenger platforms at the UCSF/Mission Bay light rail stop with a single high-level center platform to accommodate both northbound and southbound light rail service passengers would result in temporary noise increases from construction activities. Construction activities would generally be scheduled on weekends when impacts on light rail service would be less than during the weekdays. For this reason, construction activities at the light-rail platform would generally not occur simultaneously with construction activities for the event center or office towers. These activities would result in a less than 10 dBA increase over existing ambient noise levels of 71.2 dBA, Leq, and would not result in noise levels from non-impact equipment exceeding 80 dBA at 100 feet. Similar to the proposed project, construction noise impacts of the Muni UCSF/Mission Bay Station Platform Variant would be *less than significant*. Therefore, recirculation of a revised Draft SEIR is not required.

**Muni UCSF/Mission Bay Station Variant, Operational Impacts.** Figure 12-1 at page 12-24 of the RTC document shows the relocation of the UCSF/Mission Bay light rail stop under the Muni UCSF/Mission Bay Station Variant. With the reconfiguration of the light-rail stop, the loading area for northbound passengers would no longer be north of South Street, directly in front of the UCSF Hearst Tower housing building. Instead, the loading area for northbound passengers would extend from 50 feet to approximately 400 feet south of South Street. This relocation of queuing MUNI passengers egressing events at the project site could marginally decrease the severity of the significant noise impact identified for the proposed project in the Draft SEIR. This relocation would incrementally reduce noise from crowds gathering at the Muni platform next to the Hearst Tower and serve as mitigation to the crowd noise impact identified in the Draft SEIR. However, with this shift of the northbound platform, crowds queuing on the platform would now be about 900 feet from the UCSF hospital, instead of 1,200 feet, which could result in a slight increase in noise audible at the hospital after events. Unlike the UCSF Hearst Tower housing building, the hospital does not have operable windows and would be less sensitive to crowd noise due to the presence of these inherent noise-attenuating features. Additionally, the relocated platform would still maintain a sufficient buffer distance to avoid significant crowd noise impacts to the hospital. The incremental reduction in noise at the Hearst Tower would not reduce the substantial increase in noise levels at the housing building identified in the Draft SEIR to a less-than-significant level. Therefore, similar to the proposed project and as identified in the Draft SEIR, operational noise impacts from crowd noise under this variant would be considered *significant and unavoidable*. Because no new significant impacts were identified, recirculation of a revised SEIR is not required.

### ***Generator Relocation***

Comment O-MBA20L7-51 states that the assessment of potential noise impacts from relocated standby generators in the RTC document does not address exposure to pedestrians, bicyclists and motorists when they are passing by the facility during maintenance testing. Pedestrian, bicyclist or vehicle passenger pass by exposure would be a limited exposure event likely less than one minute and for the purposes of operational noise analyses are not considered sensitive receptors. As stated on page 12-2 of the Response to Comments document, the two largest (1.5 MW) event center generators would be equipped with critical grade exhaust silencers and low pressure loss silencers at the intake and exhaust vents and would result in a



noise level of 76 dBA at 50 feet. This predicted noise level would be a conservative estimate of the pass by exposure on the sidewalk of 16th Street as the units which would be located 87 feet above grade on the mezzanine level. Noise data collected on 16th street indicates that existing maximum noise level exposures on the sidewalk of 16th street to be 92.4 dBA and recorded an L10 (the noise level exceeded 10 percent of the time) to be 74 dBA. Accordingly, the transient noise exposure from generator operations would be similar to the existing noise environment and would not represent a significant or substantially more severe noise impact.

### *Transportation Improvements*

Comment O-MBA20L7-51 opines that construction work along King Street for electrical power expansion could result in a potentially significant noise impact. As discussed on page 12-28 of the RTC document, use of trenching equipment such as a backhoe, jack hammer and truck crane during construction activities associated with expanding the supply of electrical power available to Muni would generate noise levels of 79.4 dBA, Leq at, 75 feet. As stated on page 12-10, trenching activities on King Street would occur over a six-month period, although construction activities would not be continuous for the entire period. This temporary increase in noise level would be temporary and occur in an area along a major arterial roadway where existing automobile traffic noise (not inclusive of MUNI T-Line operations or other sources) has been modeled by the City of San Francisco Health Department to be above 70 dBA, Ldn. Consequently, construction work along King Street for electrical power expansion would not result in a noise increase of 10 dBA and would not result in noise levels exceeding 80 dBA at 100 feet. The noise impact would be less than significant.

### *Construction Refinements*

Comment O-MBA20L7-51 states that the assessment of potential noise impacts from dewatering pump generators in the RTC document does not address exposure to pedestrians, bicyclists and motorists when they are passing by the facility during maintenance testing. Pedestrians, bicyclists or motorists passing by the facility would have an exposure of less than one minute and for the purposes of operational noise analyses are not considered sensitive receptors. As stated on page 12-20 of the RTC document and the revised Table 5.3-9 in Chapter 14, cumulative construction noise levels would actually decrease when the removal of rapid impact compaction activities is considered in combination with pug mill operations and operation of dewatering generators. Consequently, construction refinements would actually reduce the less than significant impact identified in the Draft SEIR.

The comment also opines that the pug mill enclosure would be unlikely to attenuate operational noise. Quantification of operational noise of the proposed pug mill is presented on page 12-19 of the RTC document. This analysis did not assume any noise attenuation was provided by the proposed enclosure. Consequently, even if the enclosure does attenuate noise, noise levels would be lower than those shown on page 12-19. The noise impacts associated with operation of the pug mill, in conjunction with other construction equipment, is shown to be less than significant.



## SECTION 10: RESPONSES TO LATE COMMENTS ON AIR QUALITY

The comments and corresponding responses in this section cover topics analyzed in SEIR Section 5.4, Air Quality, as augmented in RTC document Section 13.13. These include topics related to:

- Issue AQ-1: Emissions Offsets Mitigation Measure
- Issue AQ-2: Mitigation of Construction-related Impacts
- Issue AQ-3: Health Risk Assessment
- Issue AQ-4: Air Quality Significance Thresholds
- Issue AQ-5: Air Quality Traffic Assumptions
- Issue AQ-6: Air Quality Specialist
- Issue AQ-7: Renewable Diesel as Mitigation
- Issue AQ-8: Air Quality Impacts of Project Refinements and Variant

### Issues Raised by Late Commenters on Emissions Offsets Mitigation Measure

This response addresses all or part of the following comments, which are quoted below:

A-BAAQMD2-1	O-MBA20L7-4	O-MBA20L7-17	O-MBA20L7-18
O-MBA24L9-5	O-MBA28L11-7	PH2-Lippe-4	

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The Bay Area Air Quality Management District (Air District) is willing to assist the City and County of San Francisco {City} by administering an off-site mitigation program to reduce this Project's significant air quality impacts to the extent feasible. As we have discussed extensively with City staff, the \$321,646 identified in M-AQ-2b is not sufficient to achieve the 17 tons per year of ozone precursor emission reductions needed for this Project. Due to the nature of air quality impacts that need to be mitigated, comparison of the Air District off-site mitigation program identified for this Project to other air district programs is inappropriate and incorrect.

The amount of funds required to reduce 4.4 tons of reactive organic gases (ROG) and 12.6 tons of oxides of nitrogen (NOx), including a 5 percent administration fee, is \$620,922. This amount is based on a study of the Air District's Vehicle Buy Back (VBB) program funds spent over the last 3 years and represents the average cost of reducing ROG and NOx during that three year period. Only through the VBB program can the Air District achieve the contemporaneous emission reductions and other conditions set forth in MAQ-2b.

Air District staff continues to be willing to assist the City in implementing an off-site mitigation program. However, the Final Environmental Impact Report Response to Comments includes the following statement: "Acceptance of this fee by the BAAQMD shall serve as an acknowledgement and commitment by the BAAQMD to: (1) implement an emissions reduction project (s) within one year of receipt of the mitigation fee to achieve the emission reduction objectives specified above [i.e. 17 tons of ozone precursors per year]". Given this language, unless the City amends M-AQ-2b to fund this feasible mitigation measure at the \$620,922 level previously discussed with City staff, the Air District will be unable to participate in offsetting this Project's air quality impacts. (*Bay Area Air Quality Management District, Jean Roggenkamp, letter, November 2, 2015 [A-BAAQMD2-1]*)

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**C. The Response to Comment AQ-7 is Inadequate.**

Comment AQ-7 is that the per ton charge for emission offsets is too low to achieve complete offset of the Project's emissions. The response is cagey on this point, but it appears the BAAQMD agreed with the comment, because the response states:

SF Planning has been in communication with BAAQMD with regard to its suggestion that a higher fee may be warranted to offset project emissions to a less than significant level and found that BAAQMD could not establish that an increased rate beyond that of the Carl Moyer Program plus a five percent administrative fee could meet the "rough proportionality" standard required under CEQA.

(RTC, p. 13.13-67.) The RTC's rationale for contending that a higher offset fee would not meet the "rough proportionality" standard is that offsets fees in other areas of the state are not higher than the offset fee proposed in the DSEIR. This is an error of law. The "rough proportionality" requirement requires a comparison of the cost of the mitigation to the degree of severity of the impact. The fee charged in other areas of the state are irrelevant to "rough proportionality." (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-4]*)

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**VII. The Lead Agency's Efforts on Behalf of the Applicant To Force Reduced BAAQMD Emission Offset Fees Jeopardizes the Project's Emission Reductions**

At FEIR pg. 13.13-67 the Lead Agency appears to have rejected NOx offset fees estimated for the Events Center project, provided by BAAQMD:

SF Planning has been in communication with BAAQMD with regard to its suggestion that a higher fee may be warranted to offset project emissions to a less than significant level and found that BAAQMD could not establish that an increased rate beyond that of the Carl Moyer Program plus a five percent administrative fee could meet the "rough proportionality" standard required under CEQA.

No evidence is provided in the FEIR that identifies the criteria used by SF Planning to determine that costs for the Applicant's emission credits provided by the BAAQMD would be unable to meet the "rough proportionality" CEQA standard; this information must be provided for the public's review.

At SDEIR pg. 5.4-41, M-AQ-2b appears to have been written to require the Event Center's use of BAAQMD NOx credits:

"Mitigation Measure M-AQ-2b would require the project sponsor to pay an offset mitigation fee to the BAAQMD to fund emissions reduction projects that would reduce emissions of ozone precursors to below the applicable thresholds."

Based on information found in the FEIR, it appears that the Planning Department and BAAQMD have not resolved their disagreement on the costs for offsets to be provided by BAAQMD. It also appears that the Lead Agency has designed the above-referenced measure such that the project must acquire 17 tons (appearing to be underestimated based on comments noted elsewhere in this comment letter) of ozone precursor emission credits from BAAQMD. Found primarily at FEIR pg. 13.13-66, the Lead Agency appears to have indicated its intent to require the Events Center Applicant to pay no more than average emissions credit value established under the statewide Carl Moyer program. Nothing, however, requires that a local air district charge that value or less for emissions credits it establishes under the Program, nor can it since the average cost-effectiveness program values are established by actual supply-and-demand factors that float with market conditions that differ regionally and over time. The BAAQMD cannot be forced by the Lead Agency or the Applicant to provide credits at a price they feel is reasonable based on statewide or other averages. Further, lower cost tons in Sacramento or the San Joaquin valley are not relevant to the case at hand because the geographical equivalent of the "rough proportionality" CEQA argument the Lead Agency has made would prevent their use for the Events Center project.



It seems that the Lead Agency clearly has the cart before the horse now. It first established that the project must purchase emission offsets from BAAQMD, but then later decided that their fees were not in “rough proportionality” (without providing any evidence or criteria as to what they consider “rough proportionality”) to the value of those same credits sold in other locations of the State—despite that the dollar values of those 17 tons of precursor emission credits to be found in Sacramento or the San Joaquin valley or elsewhere were made irrelevant by CEQA’s requiring that mitigation and impact be co-located as closely as possible. Notwithstanding the Lead Agency’s discourse that carries across both FEIR pages noted above, the FEIR’s response never settles the uncertainty of whether the BAAQMD will provide what the Lead Agency believes are the necessary tons of offsets needed by the project or how the Applicant’s fees of \$321,646 will buy those tons that the BAAQMD has indicated that it will sell for appreciably more. As written, the FEIR has failed to settle the issue and provide the reasonable level of certainty that the project’s emissions will actually be mitigated to less than significant levels beginning with construction startup. This is not acceptable under CEQA, and it is not appropriate that the Lead Agency attempt to dictate what market-based emission offsets/credits that it does not control are worth. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-17]*)

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## **VII. Emission Offsets Required for the Project May Be Unacceptably Short-Lived**

At FEIR pg. 13.13-67, the Lead Agency has not responded substantively or meaningfully to our earlier-expressed concern that emission offset credits for the Events Center project, created with short-term emission projects, will fail to provide durable emission benefits for the Events Center across its lifetime. Nothing in CEQA provides that short-term credits of several years duration would be adequate to offset the Events Center project across its 30 – 50 year lifetime, nor has the Lead Agency provided any evidence to the contrary. From FEIR pg. 13.13-67:

Another commenter states that the offset amount presented on page 5.4-41 of the SEIR would only offset a single year of emissions. This assertion is incorrect. Emissions offset programs replace existing high-polluting engines with cleaner more efficient engines and the incremental benefit of these replacements are realized for successive years into the future until the original engine would have reached the end of its useful life or its operation is prohibited by regulation (e.g., California Code of Regulations, Title 13, Division 3, § 2449(d)(2) (in-use off-road diesel regulation)). Other offset programs, such as the shoreside power unit implemented by the Port of San Francisco pursuant to the Final EIR for the 34th America’s Cup and James R. Herman Cruise Terminal and Northeast Wharf Plaza (Case No. 2010.0493E) continue to offset hoteling emissions of diesel ships in dry dock at Pier 70.

As noted elsewhere in our comments, the BAAQMD is required by Events Center EIR to provide precursor emission reductions to offset the 17 tons estimated in the EIR as required for the project<sup>10</sup>. However, whether those credits are produced by the BAAQMD or another entity proximate to the project area, the FEIR fails to require that they be derived from long-lived projects. As currently written in the EIR’s M-AQ-2b, it is possible that BAAQMD will fund short-duration projects with the Events Center offset fees, or, based on our expressed concerns that BAAQMD offsets may not ultimately be acquired for the project due to SF Planning’s disagreements with them over offset values, another credit-generating project approved by the Lead Agency may deliver only short-duration benefits. This would not provide the long-term emission reductions needed for the Events Center’s offsets.

In fact, the Moyer Program has funded projects that traditionally have provided emission credits for no more than an average of nine years, and the average life of all Moyer projects, including onroad projects of the type identified for possible application to the Events Center project, is seven years<sup>11</sup>. 2011 Moyer Program Guidelines require that the maximum project life for offroad compression-ignition equipment replacement projects is five years except that for excavators, skid steer loaders and rough-terrain forklifts the maximum is three years, and for crawler tractors, off-highway tractors, rubber-tired dozers, and workover rigs it is a maximum of 7 years<sup>12</sup>. Marine projects may be undertaken but with no more than a sixteen year life. Even at their longest, Moyer project emission credits purchased only once for the Event Center project will last no more than a minor portion of the project’s planned lifetime.



As currently devised, the Events Center EIR does not proscribe the purchase and use of short-term project (as little as one-year) emission offsets by the Applicant, nor does it prevent use of any combination of project emissions that would not match contemporaneously with Events Center significant emissions emitted at any point over its decades of planned life. Neither does the FEIR excerpt shown above provide information that disputes our previously submitted comment that mobile source credit-generating products, undertaken with Moyer funds, must be relatively short-term since project vehicles typically are rendered obsolete by new vehicles with lower emissions levels moving regularly into the marketplace. Rather than disputing our contention, the FEIR actually appears to have done no more than repeat it. This is not acceptable.

The Lead Agency has failed to define “successive years” in the excerpt above, nor has it identified a minimum project life for credits that it will approve for offsetting the Events Center significant emissions. Nowhere does the Lead Agency discuss purchase and use of successive emission reduction projects over the years so that the Events Center will always have adequate numbers of tons of reductions to offset its significant tons of emissions. Moreover, it has refused to prohibit use of short-term Moyer Project emission offsets that would last no more than a few years, despite the Events Center’s emissions lasting decades longer. As currently written, M-AQ-2b provides no certainty that the project’s tons of significant ozone precursors will be fully mitigated across their lifetime; in all likelihood, emission credits will provide no more than several years of emission reductions before their engendering Moyer projects expire.

**Footnotes:**

<sup>10</sup> As noted elsewhere in this comment letter, we argue that onroad and offroad emissions for the Event Center EIR have been underestimated as a result of a double-claim for existing vehicle trip emissions attributed historically to the Oakland Oracle arena, and because mitigations for operational and construction equipment contain unacceptable flaws and, with M-AQ-1’s requirements, those flaws result in unattainable and unenforceable components.

<sup>11</sup> CARB; 2006 Moyer Program Status Report, pg. 12; [http://www.arb.ca.gov/msprog/moyer/status/2006status\\_report.pdf](http://www.arb.ca.gov/msprog/moyer/status/2006status_report.pdf)

<sup>12</sup> CARB; 2011 Moyer Guidelines, Ch.7; pg. 7-5; [http://www.arb.ca.gov/msprog/moyer/guidelines/2011gl/2011cmp\\_ch7\\_07\\_11\\_14.pdf](http://www.arb.ca.gov/msprog/moyer/guidelines/2011gl/2011cmp_ch7_07_11_14.pdf)

*(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-18])*

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The Alliance previously commented on the Draft SEIR (Comment AQ-7) that the per ton charge for emission offsets is too low to achieve complete offset of the Project’s emissions. The City’s response to comments on this point is cagey, but it does suggest what now turns out to be fact - that the BAAQMD agreed with the comment - because the response states:

SF Planning has been in communication with BAAQMD with regard to its suggestion that a higher fee may be warranted to offset project emissions to a less than significant level and found that BAAQMD could not establish that an increased rate beyond that of the Carl Moyer Program plus a five percent administrative fee could meet the “rough proportionality” standard required under CEQA.

(RTC, p. 13.13-67.) The RTC’s rationale for contending that a higher offset fee would not meet the “rough proportionality” standard is that offset fees in other areas of the state are not higher than the offset fee proposed in the DSEIR. This is an error of law. The “rough proportionality” requirement requires a comparison of the cost of the mitigation to the degree of severity of the impact. The fees charged in other areas of the state are irrelevant to “rough proportionality.”  
*(Mission Bay Alliance, Thomas N. Lippe, letter, November 5, 2015 [O-MBA24L9-5])*

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5. The Board of Supervisors cannot find that "Impact AQ-4: Potential conflicts with BAAQMD's 2010 Clean Air Plan" is less than significant with mitigation because the City and Project Sponsor refuse to agree to BAAQMD's offset fees per Mitigation Measure M-AQ-2b. (See Exhibits 4 and 5.) There is also no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible.



There are too many unanswered questions regarding Option 2, including lack of assured verification of offsets to ensure their effectiveness, and lack of assurance that offset sources are available in the quantity required. BAAQMD's offset program at least answers some, if not all, of these questions.

The Commission cannot find that all feasible mitigation measures that would substantially reduce "Impact AQ-1: Impacts of Criteria Air Pollutants from Construction" have been adopted as required by CEQA section 21081, because there is no evidence that paying the offset fees demanded by BAAQMD is infeasible. Also, as discussed above, there is no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible; therefore, it is not an adequate substitute for BAAQMD's offset program. This also applies to:

- Impact AQ-2: Impacts of Criteria Air Pollutants from Project Operations; and
- Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts.

*(Mission Bay Alliance, Thomas N. Lippe, letter, November 9, 2015 [O-MBA28L11-7])*

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Two quick points. The Bay Area Air Quality Management District is not participating in your offset mitigation for ozone precursor pollution; therefore that mitigation measure is no longer effective to reduce -- we never thought it was, but even on your own terms, it's not effective to reduce those impacts to less than significant, because the agency to do the offset program is no longer agreeing to the price.

And that is a mitigation measure that the project sponsor apparently has refused to adopt, and that's a trigger for recirculating the EIR as a draft so that people can comment on this development. And this is a development that occurred yesterday, apparently, based on the letter that was on the table this morning. *(Thomas N. Lippe, transcript November 3, 2015 [PH2-Lippe-4])*

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## Response to Late Comment AQ-1: Emissions Offsets Mitigation Measure

### *Mitigation Off Set Fee*

The Bay Area Air Quality Management District (BAAQMD) letter states that a mitigation fee of \$18,030 per weighted ton per year (plus a 5 percent administrative fee) identified in Mitigation Measure M-AQ-2b of the SEIR is insufficient to achieve the required reduction of 17 tons per year of ozone precursors. The letter proposes that the mitigation fee should be based on the BAAQMD's Vehicle Buy Back Program, at a cost of \$620,922 (or approximately \$36,525 per weighted ton per year, plus a 5 percent administrative fee) to achieve the required emissions reduction.

As discussed in the Draft SEIR (pp. 5.4-41 to 5.4-42) and the RTC document (pp. 13.13-65 to 13.13-69), the offset fee identified in Mitigation Measure M-AQ-2b is based on the California Air Resources Board (CARB) Carl Moyer program cost-effectiveness criteria. These criteria were developed by CARB to establish the upper limit for emissions offset projects eligible to receive funding through the Carl Moyer program. The Guidelines adopted by CARB, including those establishing cost-effectiveness criteria, apply to air district programs State-wide, and thus are relevant to determining the appropriate amount of an offset fee in the Bay Area.



Planning staff has been in communication with BAAQMD with regard to its statement that a higher fee may be warranted to offset project emissions. Planning staff has engaged in these communications in order to understand the rationale underlying BAAQMD's statement that an increased rate beyond that of the Carl Moyer Program plus a 5 percent administrative fee could meet the "rough proportionality" standard required under CEQA.

The Carl Moyer fee structure was reviewed and updated by CARB in March of 2015 and became fully implemented on July 1, 2015. The offset costs cited in Mitigation Measure M-AQ-2b Emission Offsets are consistent with those of the CARB and other operating California air districts. For example, in the Sacramento Metropolitan Air Quality Management District, the off-site construction mitigation fee rate is \$18,030 per ton of excess NOx emissions as of July 1, 2015 (plus an administrative fee of 5 percent) and is based on the cost effectiveness formula established in California's Carl Moyer Incentive Program. In the San Joaquin Valley Air Pollution Control District, the Indirect Source Review (ISR) program requires that an offsite reduction fee of \$9,350 per ton plus a 4 percent administration fee be applied for NOx emission reductions that cannot be achieved through onsite emission reduction measures. Furthermore, the offset costs in Mitigation Measure M-AQ-2b is consistent or even higher than comparable offset programs in the San Francisco Bay Area Air Basin (SFBAAB).<sup>3</sup> In particular, CARB prepares an annual report summarizing Emission Reduction Offset Transaction Costs under New Source Review and similar programs. The most recent report is for the year 2014. CARB reports that the median cost for NOx offsets during 2014 was \$14,500 per ton, with a high cost of \$15,000 per ton. For hydrocarbon offsets, the median cost was \$7,000 per ton, with a high cost of \$9,542 per ton. These figures indicate that the mitigation measure – which requires payment of a fee of "not less" than \$18,030 – may already be significantly higher than the established market for offsets in the Bay Area. The CARB report also indicates that there is an established, functioning market for such offsets in the Bay Area, demonstrating the feasibility of this measure.<sup>4</sup>

The BAAQMD's November 2, 2015, letter does not establish that the CARB cost-effectiveness criteria are inappropriate for determining the offset costs under Mitigation Measure M-AQ-2b. Based on the information and analysis presented in the Draft SEIR, the RTC document, and supporting technical analyses, Planning Department and OCII staffs continue to believe that the offset fee established in Mitigation Measure M-AQ-2b is reasonable and sufficient to achieve the required emissions offsets. Nevertheless, in response to BAAQMD's November 2, 2015 comment letter, staff recommended, and the OCII Commission approved, an amendment to Mitigation Measure M-AQ-2b. The revision to Mitigation Measure M-AQ-2b clarifies that the amount of the BAAQMD offset fee is not capped. As revised, Mitigation Measure M-AQ-2b provides:

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<sup>3</sup> Keinath, Michael, Rambol Environ, 2015. Analysis of the Proposed Offset Program for the Golden State Warriors. October 19, 2015.

<sup>4</sup> California Air Resources Board, *Emission Reduction Offset Transaction Costs -- Summary Report for 2014* (April 2015), pp. 17-18.



Upon completion of construction, and prior to issuance of certificate of occupancy, the project sponsor, with the oversight of OCII or its designated representative, shall either:

- 1) Pay a mitigation offset fee to the Bay Area Air Quality Management District's (BAAQMD) Strategic Incentives Division in *an amount no less than* \$18,030 per weighted ton of ozone precursors per year requiring emissions offsets plus a 5 percent administrative fee to fund one or more emissions reduction projects within the San Francisco Bay Area Air Basin (SFBAAB). This fee is intended to fund emissions reduction projects to achieve reductions of 17 tons of ozone precursors per year, the estimated tonnage of operational and construction-related emissions offsets required. Documentation of payment shall be provided to OCII or its designated representative.....

(Emphasis Added.)

This revision will enable the project sponsor to continue discussions with the BAAQMD to determine the amount of the appropriate fee, while establishing a "floor" of \$18,030 per ton. The payment of this fee requires an agreement between BAAQMD and the project sponsor regarding the amount of the fee. If BAAQMD and the project sponsor are unable to reach agreement, then this fee will not be paid to BAAQMD.

In addition, as discussed in the RTC document, Mitigation Measure M-AQ-2b has been revised since publication of the Draft SEIR to provide the project sponsor with a second option under this measure to directly implement an emissions offset project as an alternative to entering into an agreement with the BAAQMD. To qualify under this option, the specific emissions retrofit project must result in emission reductions within the SFBAAB that would not otherwise be achieved through compliance with existing regulatory requirements. Prior to implementation of the offset project, the project sponsor must obtain OCII's approval of the proposed offset project by providing documentation of the estimated amount of emissions of ROG and NO<sub>x</sub> to be reduced (tons per year) within the SFBAAB from the emissions reduction project(s).

As an alternative to paying BAAQMD an offset fee, Mitigation Measure M-AQ-2b authorizes the project sponsor to "[d]irectly implement a specific offset project to achieve reductions of 17 tons per year of ozone precursors..." There is nothing novel about air quality offsets, which are commonly purchased throughout areas of California in which existing ambient air quality is polluted enough to require new development projects to seek ways to mitigate expected increases in air pollution. The requirement to reduce ozone precursors by 17 tons thus serves as a specific, quantifiable performance standard that the project sponsor must achieve.

Notably, successful air quality offset projects have previously been implemented within the City. For example, the 34th America's Cup and James R. Herman Cruise Terminal and Northeast Wharf Plaza Project EIR required construction of a long-term shoreside power



facility to be developed at the Port's dry dock facility at Pier 70 to offset the project's emissions.<sup>5</sup> This facility provides electrical grid power for ships brought in for unscheduled maintenance, eliminating the need for auxiliary loads to be supplied by on-board diesel generators, which emit much greater amounts of air pollutants. Estimated reductions for year 2013 were 11 tons of reactive organic gases (ROG), 215 tons of nitrogen oxides (NOx), and 6 tons per year of particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). The shoreside power facility offset project has since been successfully implemented, and continues to provide emissions reductions. Notably, the State of California has recently formulated an approach to offsets similar to the one proposed for this project, by which the project sponsor could either purchase offsets through an existing air district program or, as an alternative, could purchase its own offsets an open-market transaction.<sup>6</sup> Therefore, evidence supports the conclusion that offset projects can be successfully implemented to offset emissions. Furthermore, should the project sponsor desire to comply with Mitigation Measure M-AQ-2b by implementing a specific offset project under option two, the project must first be approved by OCII in order to verify the amount of the offset that will be achieved by implementing the offset project.

Under either option included in Mitigation Measure M-AQ-2b, the project sponsor must achieve reductions of no less than 17 tons of ozone precursors per year, the estimated tonnage of operational and construction-related emissions offsets required for the project. The mitigation measure further provides that the measure must be implemented after "completion of construction" and "prior to issuance of the certificate of occupancy." Therefore, certificates of occupancy will not be issued until the project sponsor has either (1) paid BAAQMD's offset fee as per an agreement between BAAQMD and the project sponsor, with the amount of the fee not less than \$18,030 per ton, or (2) directly implemented an offset project(s) approved by OCII to offset no less than 17 tons of ozone precursors per year. While it is anticipated that direct offset projects will be available to achieve this offset, if such offset projects are not available, then the project sponsor would need to pay the offset fee required by BAAQMD in order to obtain certificates of occupancy. Therefore, the mitigation measure is enforceable and ensures project operations will not commence until project emissions have been offset.

For the reasons summarized above and discussed in greater detail in the SEIR and RTC document, the November 2, 2015 letter from the BAAQMD does not alter the analysis or conclusions reached in the SEIR. OCII believes Mitigation Measure M-AQ-2b is feasible and would reduce identified construction and operational air quality impacts described in SEIR Impacts AQ-1, AQ-2, and C-AQ-1.

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<sup>5</sup> San Francisco Planning Department, 2011. *Final EIR on the 34th America's Cup & James R. Herman Cruise Terminal and Northeast Wharf Plaza*. Case No. 2010.0493E. State Clearinghouse No. 2011022040. Certified on December 15, 2011. See Vol. 6, Section 12.13, page 12.13-37.

<sup>6</sup> Department of Water Resources, December 2013, *Draft EIR/EIS for Bay Delta Conservation Plan*, pp. 22-52 – 22-56, State Clearinghouse No. 2008032062.



### ***Rough Proportionality***

Commenters disagree with the rough proportionality interpretation used in the development of Mitigation Measure M-AQ-2b. However, the commenter is mistaken that the fee charged in other areas of the state are irrelevant. Rather, the fee charged in other Northern California locations provide a direct comparison of the industry standard within the same geographic region. Moreover, the Carl Moyer Guidelines apply State-wide, and therefore encompasses the Bay Area. Nevertheless, as described above, the mitigation measure has been revised to indicate that the amount of the BAAQMD offset fee is not capped.

### ***Emissions Offset Duration of Benefits***

Commenters assert that emissions offsets may be unacceptably short-lived. OCII disagrees. As a condition of project approval, the project sponsor has committed to implementing all mitigation measures identified in the Final SEIR, including Mitigation Measure M-AQ-2b, Emissions Offsets. Mitigation Measure M-AQ-2b requires that offset project(s) achieve an annual 17 ton reduction. BAAQMD (option 1) or OCII (option 2) would be responsible for determining that the offset project meets the requirements of the measure. OCII staff disagrees with the assertion that the project sponsor will not comply with their obligation. OCII reasonably concluded BAAQMD can and should comply with full attainment of emissions offset under option 1, and similarly, it must be assumed that under option 2, OCII would comply with its obligations pursuant to the mitigation measure. The mitigation measure includes clear language specifying the purpose and intent of the emission offset project, such that the estimated annual amount of ROG and NO<sub>x</sub> to be reduced within the SFBAAB would offset the project emissions.

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## **Issues Raised by Late Commenters on Mitigation of Construction-related Impacts**

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-3      O-MBA20L7-14

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### **I. Air Quality Impacts.**

The Alliance's comments on the Responses to Comments related to Air Quality issues are set forth in the November 2, 2015, letter from John Farrow attached as Exhibits A and B, the November 2, 2015, letter from Greg Gilbert attached as Exhibit C, and in this letter.

#### **A. The Response to Comment AQ-6a is Inadequate.**

Mitigation Measure M-AQ-1 requires the use of Tier 2 or better engines for all off-road equipment. The "step-downs" from Tier 4 to Tier 3 to Tier 2, or from Tier 3 to Tier 2, are allowed when Tier 4 (or Tier 3) is not "commercially available." But step-downs from Tier 2 are not available under any scenario.

Mr. Gilbert's July 19, 2015, letter commented that this mitigation is not feasible because there is not enough Tier 2 or better equipment available for the Project Sponsor to use. The response to this



comment states that “in 2014 approximately 59 percent of all off-road equipment in the state were operating with Tier 2 engines or better” and, therefore, it appears the measure is feasible. (RTC, p. 13.13-53).

But the response does not specify whether the diesel off-road equipment sampled included equipment in private or government fleets that are not potentially available to the Project Sponsor to use, or alternatively, whether it consisted only of equipment that is potentially available to the Project Sponsor to use. If the former is true, then the 59% sampling result is meaningless, because the relevant population to sample is equipment that is potentially available to the Project Sponsor to use. A review of Figure 4 in the document cited in footnote 20 on RTC page 13.13-53 appears to indicate that the population of equipment sampled is all equipment, including equipment that is not potentially available to the Project Sponsor to use. Therefore, the 59% sampling result appears to be meaningless.

Moreover, even if the population of equipment sampled is equipment that is potentially available for the Project Sponsor to use, the idea that the Project Sponsor will be able to acquire 100% of its equipment at Tier 2 or better when only 59% of the potentially available equipment is Tier 2 or higher is illogical. It is more plausible that the Project Sponsor will be able to acquire only about 59% of its equipment at Tier 2 or better.

As stated in Mr. Gilbert’s November 2, 2015, report attached as Exhibit C:

Further, the statistic provided by the Lead Agency does not say that 59% of all construction equipment vehicles in CA will meet Tier 2 or better status – rather, it says that all offroad vehicles do (as of 2014). All offroad vehicles are not all construction vehicles; in fact, construction vehicles are a small subset of all offroad vehicles. Moreover, the rate of compliance for construction vehicles, particularly large, expensive, long-lived ones (scrapers, excavators, pile drivers, etc.) will be far lower than the average for all offroad vehicles that include such non-construction equipment as ground support vehicles at airports, agricultural forklifts, and myriad other offroad, nonconstruction equipment types. Because the statistic represents all offroad vehicles in CA and not construction vehicles, it cannot be used to even roughly determine the proportion of construction vehicles supposedly available to the project with Tier 2 engines, VDECs, and 40% NOx control; hence, the statistic is irrelevant to the Events Center project environmental review and does nothing to refute our concerns expressed clearly at the SDEIR review stage.

(Exhibit C, p. 11.)

**B. The Response to Comment AQ-6e is Inadequate.**

Mr Gilbert’s July 19, 2015, letter commented that:

Further, M-AQ-1 specifies numerous sub-part requirements (A 1 through 5) to be included in the Construction Emissions Mitigation Plan, and in each case compliance with those sub-parts is left to the “project sponsor”. So, too, is compliance with the Measure’s additional duties required under M-AQ-1 items B and C. This is not appropriate when considering the extent, complexity, and costs that will be incurred for effective mitigation measure compliance across the 26-month construction period; permitting the project sponsor to create, implement, report, and determine compliance with the Measure is akin to having the fox guard the henhouse and must not be allowed. As written, the measure is not enforceable due to the subjective, undefined nature of “Air Quality Specialist” who will approve the project sponsor’s Construction Emissions Mitigation Plan. Further, it is unacceptable that the Measure will permit the project sponsor to determine compliance with each of the measure’s components, record and report information signifying compliance, and then, under part C certify their own compliance with the Plan and its various requirements. We have inspected construction project sites, under air district contract, to determine compliance with air district-imposed construction equipment mitigations and have found uniformly poor compliance; to exemplify, at one residential subdivision project in south Sacramento County we determined that only one offroad construction vehicle out of nearly twenty were actually compliant with the mitigation requirements that had been imposed on the



project by the Lead Agency. This is because there has traditionally been very little, if any, post-EIR follow-through to verify mitigation compliance by Lead Agencies or by the local air district after the CEQA project has been approved for development and construction has started. Knowing this, construction and development firms commonly let air quality mitigations go unmet, although records purporting to show compliance can be easily formulated and submitted post hoc in order to fulfill a paper requirement. Without an independent, qualified 3rd party contractor onsite each day to track, verify, and record emissions-and activity-related information on construction vehicles used at the project site to ensure the EIR's mitigations are implemented effectively, the project is very unlikely to produce more than a token of the emission reductions claimed in the DSEIR.

The Responses to Comments (RTC) codes this comment as "AQ-6e." (Volume 5, p. 13.13- 60.) The response to comment AQ-6e states:

The City and OCII have successfully monitored implementation of emissions minimization requirements on numerous construction projects over the past several years. Examples of past and ongoing projects with CEMP emissions minimization requirements include Candlestick Point-Hunters Point Shipyard Phase II Development Project, which requires staged increases in the percentage of Tier 4 equipment; the Seismic Upgrade of BDPL Nos. 3 & 4 at Hayward Fault Project, which had one year of tiered engine requirements for on-road spoils hauling trucks and off-road construction equipment; and the Pacific Rod and Gun Club Upland Soil Remedial Action Project, which also had tiered engine requirements for off-road construction equipment.

(Volume 5, p. 13.13-60.)

The RTC's assertion is made without any evidentiary support. Well before the Response to Comments issued, the Alliance attempted to discover if the City or the OCII have any evidence to support the DSEIR's assumption that the Project's compliance with adopted air quality mitigation measures will be effectively monitored. In this regard, on August 13, 2015, I submitted a request to the City and OCII for:

All records relating to monitoring or enforcement of compliance with mitigation measures adopted to reduce potentially significant air quality impacts of development projects approved by the City, the Redevelopment Agency of the City and County of San Francisco, or the Successor Agency to the Redevelopment Agency of the City and County of San Francisco, including any records reflecting audits of such compliance.

(See Exhibit D attached to this letter). In my email to the OCII and City dated September 30, 2015, I provided further definition to this request, stating:

With respect to all construction projects in these areas for which the EIR identified significant air quality impacts from construction activities that could not be entirely avoided, the City, Redevelopment Agency, or the Successor Agency would have adopted mitigation measures to reduce the projects' significant air quality impacts and would have adopted a Mitigation Monitoring and Reporting Plan ("MMRP"). These MMRPs should have resulted in the generation of reports documenting the project's compliance, or lack thereof, with these adopted air quality impact mitigation measures. I want to obtain these reports."

(See my email exchanges between the OCII and City dated September 11 through September 30 of 2015, attached as Exhibit E.)

Despite these requests, neither OCII nor the City have produced a single record showing they have either themselves conducted monitoring of CEQA required air quality mitigation measures or have taken steps to ensure that Project Sponsors tasked with self-monitoring their own compliance have faithfully done so. The agencies' failure to produce any such records leads inescapably to the conclusion that Mr. Gilbert's observation applies to the OCII and the City, and no such records exist because no such monitoring has been done.



*Once again, I hereby request that the OCII and the City produce any such records, and if such records exist, continue the OCII's hearing regarding certification of the SEIR until a date after the records are produced. If such records exist, certification of the SEIR before producing the records would deny my client a fair trial under subdivision (b) of section 1094.5 of the Code of Civil Procedure. (Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-3])*

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#### **IV. Project Mitigation to Reduce Construction and Operational Emissions Is Flawed**

At FEIR pg. 13.13-53 the Lead Agency rebuffs concerns that Tier 2 engines and Tier 4 engines required in the SDEIR of all 195 pieces of project-related construction equipment may not provide adequate emission reductions:

“As a part of the implementation guidance, the City Planning Department presents the results of a statewide data summary gathered by the California Air Resources Board as part of compliance with the In-Use Off-Road Diesel Regulation. The data indicate the available construction equipment at various engine tier levels. These data indicate that in 2014 approximately 59 percent of all off-road equipment in the state were operating with Tier 2 engines or better. Given that the majority of equipment statewide is capable of complying with the conditions of Mitigation Measure M-AQ-1, it is reasonable to conclude that the measure represents feasible mitigation.”

No information has been provided in the SDEIR or FEIR as evidence, other than the statistic excerpted above, that all 195 pieces of project construction equipment will be available for work at the Event Center at all times necessary during the 26 - month long construction process. Rather than contacting major construction firms expected to bid on the project to determine actual Tier 2 or better equipment availability, the Lead Agency has belatedly decided to rely on nothing more than the belatedly - developed statistic excerpted above. In actuality, this statistic reflects serious flaws; it acts as another example of the Lead Agency's inexperience with construction vehicles and practices.

A statistical average may look good on paper but it cannot ensure provision of all 195 pieces of equipment that must meet the FEIR MM-AQ-1's Tier, VDECs, and NOx requirements---only actual, compliant equipment available for use at the project will. Why did the Lead Agency fail to conduct a survey of construction firms that could be expected to bid on Event Center work? No information is provided in the EIR that actual fleets which can be expected to work at the Events Center project are available to meet the requirements of the mitigation measure. Further, the statistic provided by the Lead Agency does not say that 59% of all construction equipment vehicles in CA will meet Tier 2 or better status---rather, it says that all **offroad** vehicles do (as of 2014). All offroad vehicles are not all construction vehicles; in fact, construction vehicles are a small subset of all offroad vehicles. Moreover, the rate of compliance for construction vehicles, particularly large, expensive, long-lived ones (scrapers, excavators, pile drivers, etc.) will be far lower than the average for all **offroad** vehicles that include such non-construction equipment as ground support vehicles at airports, agricultural forklifts, and myriad other offroad, non-construction equipment types. Because the statistic represents all offroad vehicles in CA and not construction vehicles, it cannot be used to even roughly determine the proportion of construction vehicles supposedly available to the project with Tier 2 engines, VDECs, and 40% NOx control; hence, the statistic is irrelevant to the Events Center project environmental review and does nothing to refute our concerns expressed clearly at the SDEIR review stage. This is a major flaw, but others are no less important.

Rather than relying solely on the FEIR's statistic to respond to public concerns of construction mitigation challenges, the construction equipment list for the project found at FEIR Vol 6, pg. 413 of 1669 should have been used by the Lead Agency for comparisons to CARB offroad construction vehicle and equipment databases, and then, more importantly, to develop a survey of construction companies capable of working on the project for their compliant equipment lists. Other CEQA projects, particularly in the Sacramento area<sup>4</sup>, have involved detailed surveys of construction firms to determine their equipment compliance mitigation potential and availability. Just as importantly, CARB offroad regulations (as of 2011) no longer require VDECs be installed on all Tier 2 vehicles, nor



will OSHA restrictions permit such due to sight-and-visibility concerns<sup>5</sup>. In reality, it is a near-certainty that all 195 pieces of offroad, each required to be Tier 2 or better engines and equipped with VDECs and producing 40% NOx reduction, will be unavailable—and unattainable-- for compliance with the mitigation's requirements.

While the FEIR's offroad emissions mitigation is unlikely to meet the Tier 2 or better requirement with mandatory VDECs, it is also virtually certain to fail the mandated 40% NOx reduction required of each piece of equipment. To an even worse extent than the VDECs requirement, the mitigation measure's linked NOx decrement is not practicably obtainable since there are no CARB-approved VDECs products that will provide highly effective particulate filtering with that level of NOx destruction. While the Cleaire Longview product would produce DPM control with 25% NOx destruction, it was limited to onroad vehicles only, no CARB certifications were obtained after early 2013, and Cleaire has been out business for some time. Cleaire's offroad counterpart product, the Lonestar product, was designed to produce similar emission benefits, but was limited to certain years of rubber-tired construction vehicles only.

(We note that the construction equipment list for the Events Center project at FEIR Vol 6, pg. 413 of 1669, lists use of scrapers, excavators, and other types of construction equipment that are tracked, not rubber-tired.) The Johnson-Mathey EGRT product, capable of Level III particulate control with 40% NOx destruction has been CARB-certified for certain pre-2003 onroad trucks only. The Nett BlueMax DPF-SCR product, while producing substantial reductions of NOx and particulate, is certified only for certain-year stationary gensets. Finally, the ECS DPF catalyst with use of an aqueous diesel product will produce only Level II particulate control with 20% NOx destruction; however, the PuriNOx diesel fuel product has not been available for a number of years and thus that option is not viable.

As written, the Events Center EIR's MM-AQ-1 requires that every piece of offroad construction equipment used at the project will be mitigated with required use of Tier 2 engines equipped with VDECs and 40% NOx reduction if similarly-equipped Tier 4 and then, next, Tier 3 equipment are not available. The measure mandates without exception that every piece of equipment to be used at the Events Center project, regardless of Tier, will include VDECs that must produce a collateral 40% NOx reduction. To our knowledge, there are no VDECs products, CARB-certified for use in CA, which will provide that level of NOx destruction. Further, we stress that M-AQ-1 requires the specified level of NOx destruction on both Tier 3 and 4 engines, and thus later model engines with relatively lower NOx emissions (due to more stringent emission standards) would still need to produce the 40% NOx decrement taken against either their respective Tier 3 or Tier 4 NOx certification levels.

We have provided here a screenshot of a relevant portion of M-AQ-1 from SDEIR pg. 5.4-35:

TABLE M-AQ-1-1 OFF-ROAD EQUIPMENT COMPLIANCE STEP-DOWN SCHEDULE		
Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 4 Interim	ARB NOx VDECs (40%) <sup>52</sup>
2	Tier 3	ARB NOx VDECs (40%)
3	Tier 2	ARB NOx VDECs (40%)
<p><b>How to use the table:</b> If the requirements of (A)(1)(b) cannot be met, then the project sponsor would need to meet Compliance Alternative 1. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 1, then Compliance Alternative 2 would need to be met. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 2, then Compliance Alternative 3 would need to be met.</p>		
<p>b) All off-road equipment shall have engines that meet either U.S. Environmental Protection Agency (USEPA) or California Air Resources Board (CARB) Tier 4 off-road emission standards. If engines that comply with Tier 4 off-road emission standards are not commercially available, then the project sponsor shall provide the next cleanest piece of off-road equipment as provided by the step down schedules in Table M-AQ-1-1.</p>		



As the compliance alternatives above indicate, all tiered engines must be equipped with VDECs that will provide both particulate filtering and a reduction (against the particular engine's applicable emission standard determined by year of manufacture) of NOx by 40%. While this is almost certainly unattainable, SDEIR Table 5.4-8 (Mitigated Average Daily Construction-Related Emissions) clearly shows that the project has assumed it would, and has made a related emissions reduction claim for both particulate and NOx benefits to result from the mitigation measure's Compliance Alternatives. Because the construction industry in CA does not yet have enough Tier 4 offroad vehicles to readily supply all equipment types to large projects under concurrent construction such as the Events Center project<sup>6</sup>, because Tier 2 vehicles are not required by CARB to be equipped with VDECs, and because OSHA restrictions prevents all construction vehicles from being retrofitted with VDECs, M-AQ-1's mandated application of the related components to every piece of project-related construction equipment is probably unattainable.

Further, the requirement that each Tiered level of equipment have VDECs that will provide collateral reductions of 40% NOx appears to be impossible based on the unavailability of NOx destruction technology for construction equipment and as reflected by CARB's certified-VDEC listings. Finally, other than for what has turned out to be an inapplicable statistic, we remain unable to find substantive information in the Events Center FEIR, in response to our earlier-expressed concerns regarding M-AQ-1, that proves construction fleets in CA can meet the measure's requirements and that demonstrates that certified technologies are available in CA to provide the EIR's mandated and claimed emission reductions. As written, M-AQ-1 requirements and claimed emission reductions are likely unattainable; if this is correct, the flawed measure cannot be enforced nor will it provide the emission benefits claimed in the EIR to reduce the project's impacts to less than significant levels. M-AQ-1 and related emission benefits (NOx, PM10/2.5, reduced health risks) claimed for reductions of the project's impacts must be revised, with results recirculated for public review and comment.

**Footnotes:**

<sup>4</sup> Personal conversations with SMAQMD CEQA planner Karen Huss; October, 2015

<sup>5</sup> See OSHSB regulation regarding exhaust retrofit visibility; <http://www.arb.ca.gov/msprog/ordiesel/vdecssafety.htm>

(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-14])

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## Response to Late Comment AQ-2: Mitigation of Construction-related Impacts

### *Availability of Tier 2 or Higher Off-road Equipment (Comment O-MBA20L7-3)*

With regard to the availability of off road equipment with Tier 2 or higher engines, this requirement will be incorporated into the Construction Emission Minimization Plan, which the project sponsor must submit and OCII must approve before construction commences. (See Mitigation Monitoring and Reporting Program, p. MMRP-28.) It is appropriate to assume that this measure will be carried out as approved; OCII need not speculate about the possibility that this measure will not be carried out, insofar as the requirement to carry out this measure is a binding obligation. (*Berkeley Hillside Preservation v. City of Berkeley* (2015) 60 Cal.4th 1086, 1120-1121 [agency need not engage in speculation that building design would prove to be infeasible as proposed, despite report from engineer hired by petitioners stating that design could not be built].)

Moreover, OCII concludes that sufficient numbers of Tier 2 or higher engines will be available. Since 2008, as a result of the California Air Resources Board (CARB) and the U.S. EPA's Off-road Compression-Ignition (Diesel) Engine Standards, newly manufactured off-road equipment less than 750 horsepower must have Tier 3 or better engines; since 2011



this requirement now also applies to equipment greater than 750 horsepower. Consequently, since 2008 Tier 3 or Tier 4 equipment are the only equipment available for purchase. Because OCII and the City recognize that older tiered equipment may still exist in contractors' fleets, Mitigation Measure M-AQ-1 allows Tier 2 equipment to also be used provided that Verified Diesel Emission Control Strategy (VDECS) is in place.

As stated in the RTC document, the equipment sampled is from ARB's database used to determine fleet-wide compliance with the U.S. EPA's Off-road Compression-Ignition (Diesel) Engine Standards. This database includes all applicable equipment from off-road fleets statewide, showing that 59 percent of existing (2014) off-road equipment is currently Tier 2 or better. While this stated percentage may include equipment in government fleets (contractors would represent private fleets), it is reasonable to expect that such government fleets of off-road equipment would represent a relatively small percentage of statewide equipment as most governments such as San Francisco contract out construction work so as not to have to maintain an extensive fleet.

The commenter suggests that it is only reasonable that 59 percent of construction equipment could meet the requirements of Mitigation Measure M-AQ-1. A contractor's fleet may comprise a number of pieces of equipment in the same category (e.g., 2 or more graders of the same size) that may be of different Tier levels. Mitigation Measure M-AQ-1 does not permit off road equipment greater than 25 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities to have Tier 1 engines under any circumstances. Therefore, Mitigation Measure M-AQ-1 does not permit a contractor to utilize such equipment included within its fleet if it has a Tier 1 engine. As a result, it is expected that a contractor would preferentially deploy equipment meeting the requirements of Mitigation Measure M-AQ-1 for use on the project site. Given as noted above, Tier 3 or Tier 4 equipment are the only equipment available for purchase since 2008, the premise of commenter's argument (that a sufficient amount of Tier 2 or higher equipment is unavailable) is flawed. If such equipment were not available in the contractor's fleet, the contractor would be required to either obtain the equipment for temporary use from equipment rental companies or purchase new equipment meeting the requirements.

Furthermore, construction-related impacts of ozone precursors are anticipated to exceed significance thresholds presented in the SEIR, and this impact was determined to be significant and unavoidable with mitigation. The intent of Mitigation Measure M-AQ-1 is to implement all feasible mitigation to address this significant impact. Mitigation Measure M-AQ-2b would require the project sponsor to calculate the amount of emissions offset required based on the degree of compliance with off-road equipment types that were determined to be commercially available and the reporting requirements of Mitigation Measure M-AQ-1. If the calculated construction emissions of ozone precursors require offsets in excess of 17 tons per year, then the applicant will be required to provide the additional offset amount commensurate with the calculated ozone precursor emissions exceeding 17 tons per year.



***Availability of Tier 2 or Higher Off-road Equipment and VDECS (Comment O-MBA20L7-14)***

Please see discussion above with regard to the availability of off-road equipment with Tier 2 or higher engines.

As stated in the RTC document, statewide 59 percent of existing (2014) off-road equipment is currently Tier 2 or better. While this stated percentage may include non-construction equipment, as shown in Table 2, similar data are available specifically for the San Francisco Bay Area Air Basin, which would have a minimal composition of agricultural equipment. The data in Table 2 also show the distribution of engine tiers by fleet size. Contractors involved with construction of the proposed project would be expected to be owners of large construction fleets that have been subject to an accelerated implementation schedule which is reflected in the greater inventory of Tier 2, 3, and 4 equipment for large contractors.

With regard to availability of VDECS, the commenter is correct that there are currently no options available for NOx control of off-road equipment. However, it should be emphasized that construction-related impacts of ozone precursors would be a significant and unavoidable impact with mitigation as identified in the SEIR. The intent of Mitigation Measure M-AQ -1 is to mitigate construction emissions of ozone precursors to the degree feasible to address this significant impact. Mitigation Measure M-AQ-2b would require the project sponsor to calculate the amount of emissions offset required from construction, based on the reporting requirements of Mitigation Measure M-AQ-1 and the degree of compliance with off-road equipment types that were determined to be commercially available. If the calculated construction emissions of ozone precursors require offsets in excess of 17.0 tons per year, then the applicant will be required to provide the additional offset amount commensurate with the calculated ozone precursor emissions exceeding 17.0 tons per year.

***Verification of Compliance with Construction Emissions Minimization Plan (CEMP)***

Verifying compliance with the documentation submitted pursuant to a CEMP will be performed by designated air quality specialists at the San Francisco Planning Department (SF Planning). As stated in the RTC document, SF Planning has air quality specialists with expertise in CEQA-related air quality technical analysis, including the ability to assess the availability and quality of existing data; evaluation of air quality modeling parameters and potential air quality impacts; and development, evaluation, and monitoring of air quality mitigation measures. SF Planning air quality specialists provide an analysis of a project's potential to emit criteria air pollutants, toxic air contaminants, and greenhouse gases, as well as the potential for pollutants to adversely affect sensitive receptors. Air quality specialists are familiar with modeling programs including, but not limited to: CalEEMod, URBEMIS, EMFAC, AERMOD, and CAL3QHCR Line Source Dispersion Model and work regularly with the BAAQMD staff and staff with air quality analysis expertise at the Department of Public Health (DPH) on individual projects and in the creation of technical support documentation for the continued development of a Community Risk Reduction Program for the City.



**TABLE 2**  
**SAN FRANCISCO BAY AREA AIR BASIN ALL FLEET SIZES**  
**(PIECES OF EQUIPMENT, ACTIVITY HOURS AND TIER LEVEL BY EQUIPMENT TYPE) – 2010**

Equipment Type	Pieces of Equipment	Activity Hours	Percent of Equipment Tier 2 or Higher <sup>a</sup>	Percent of Activity Hours Tier 2 or Higher <sup>a</sup>
Tractors/Loaders/Backhoes	5,724	2,880,678	47	65
Excavators	2,279	1,237,021	58	70
Skid Steer Loaders	1,898	555,975	69	78
Rubber Tired Loaders	1,897	1,565,292	40	55
Rough Terrain Forklifts	1,464	347,490	65	70
Rollers	1,452	419,915	42	48
Crawler Tractors	1,172	456,477	33	49
Scrapers	1,065	419,812	35	47
Other Construction Equipment	785	294,772	40	54
Graders	737	365,480	27	45
Cranes	636	252,685	28	32
Off-Highway Trucks	543	616,782	43	56
Off-Highway Tractors	518	289,772	44	52
Trenchers	344	104,917	39	48
Pavers	279	92,668	41	48
Bore/Drill Rigs	211	64,043	51	79
Paving Equipment	158	61,849	47	54
Rubber Tired Dozers	129	83,816	20	29
Surfacing Equipment	87	19,717	49	59
<b>Total</b>	<b>21,377<sup>b</sup></b>	<b>10,129,160<sup>b</sup></b>	<b>--</b>	<b>--</b>

<sup>a</sup> This was determined by matching the engine model year shown in the In-Use Off-Road Equipment, 2011 Inventory Model for an individual piece of equipment with the horsepower bin for the USEPA/CARB PM Emission Standard (Table C-1, Appendix C).

<sup>b</sup> Number may not match the sum of the column due to rounding. However, the number does reflect the actual total from the Model.

PM<sub>10</sub> – particulate matter less than 10 microns in size

SOURCE: California Air Resources Board, "In-Use Off-Road Equipment, 2011 Inventory Model," Query accessed online, April 2, 2012, [http://www.arb.ca.gov/msei/categories.htm#inuse\\_or\\_category](http://www.arb.ca.gov/msei/categories.htm#inuse_or_category).

To evaluate compliance of specific equipment submitted pursuant to the CEMP, air quality specialist staff will be able to verify engine tier claims by looking up the ARB-designated Equipment Identification Number (EIN) required to be visible on all equipment in the CARB's Diesel Off-road On-line Reporting System (DOORS), which is a database of all off-road equipment statewide. As noted above, Planning staff has sufficient expertise to perform this work.

The commenter cites a single instance of observed non-compliance with air quality mitigations which occurred in Sacramento County, and not within the Bay Area Air Basin or



San Francisco. This one observation in another air basin does not demonstrate that compliance with air quality mitigations are not successfully implemented in San Francisco.

As an example of compliance submittals to SF Planning pursuant to a CEMP, **Attachment B** to this Exhibit D contains off-road equipment inventory logs submitted for a project at the Pacific Rod and Gun Club Upland Soil Remedial Action Project from May to October 2015. Tiered equipment claims on this submittal can be verified through the DOORS program on the CARB website.

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### Issues Raised by Late Commenters on Health Risk Assessment

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-10      O-MBA20L7-11

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For the reasons set forth below, we concur with your determination that the assessment TACs in the DSEIR and FSEIR (collectively, SEIR) is inconsistent, confusing, and legally erroneous and that it fails adequately to disclose the Project's impacts. This letter incorporates by reference the November 2, 2015 letter report authored by Paul Rosenfeld and Jessie Jaeger (attached as Exhibit 1).

#### **I. The SEIR fails to provide a project-specific assessment of TAC health risks.**

The DSEIR fails to provide a project-specific assessment of TAC health risks because it does not adopt or apply a threshold of significance for the project-specific impact. The SEIR's only threshold of significance for TACs is a threshold for cumulative impacts. The SEIR's threshold would find a considerable contribution to a significant cumulative impact only if (1) there were 100 excess cancers from all sources and (2) the project itself contributed 10 excess cancers. The SEIR's approach is wrong as a matter of law because it conflates project-specific and cumulative analysis and because it assumes without justification that the only relevant threshold is the threshold for whether the project makes a considerable contribution to a significant cumulative impact.

CEQA requires that an EIR assess both project-specific and cumulative impacts. (CEQA Guideline, §§ 15126.2, 15130.) Because assessment of project-specific and assessment of cumulative impacts are a distinct obligations, they require a distinct set of thresholds of significance. Whereas a project-specific analysis requires only that an EIR compare a project's effects to a single threshold, cumulative analysis requires two thresholds because cumulative impact analysis is a two-step process. In cumulative analysis an agency must separately (1) determine whether the impacts of the project in combination with those from other projects with related impacts are cumulatively significant by comparing that total impact to a "step-one" threshold, and (2) if so, determine whether the project's own effect is a considerable contribution by comparing the project's own effect to a "step-two" threshold. (CEQA Guideline, § 15130(a); see Kostka and Zischke, *Practice Under the California Environmental Quality Act* (2nd Ed., 2011 Update), §§ 13.39, 15.52; Remy, Thomas, et al, *Guide to CEQA* (11th Ed., 2007), pp. 474-475.)

CEQA recognizes that the thresholds used for project-specific analysis and for the second step of cumulative analysis differ. The step-two threshold of significance in cumulative analysis is used to determine whether the project's contribution to a significant cumulative impact is "considerable," i.e., "whether 'any additional amount' of effect should be considered significant in the context of the existing cumulative effect." (*Communities for a Better Environment v. California Resources Agency* ("CBE") (2002) 103 Cal.App.4th 98,119.) Even if a project's impact is "individually minor" and, thus,



not found significant in a project-specific analysis, it may make a considerable contribution because it is “collectively significant.” (Id. at 119-120; *Los Angeles Unified School Dist. v. City of Los Angeles* (“*LAUSD*”)(1997) 58 Cal.App.4th 1019, 1025-1026.) Indeed, the step-two threshold may need to be a sliding scale because “the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant.” *CBE*, supra, 103 Cal.App.4th at 120. In sum, because CEQA specifically recognizes that the step-two threshold in cumulative analysis may be lower than the threshold to determine whether an impact is individually significant, there can be no routine assumption that the project-specific threshold is the same as the threshold for step-two in a cumulative analysis.

Here, the SEIR does not provide, much less justify, any threshold for a project-specific analysis. The only form of analysis was cumulative analysis, and the SEIR simply declines to consider whether the Project’s TAC impacts would be individually significant.

The omission of a project-specific analysis is legally erroneous. Furthermore, there is ample evidence that the omission is prejudicial to informed decision-making and public participation. Had the EIR provided a legally adequate project-specific analysis, it may well have determined that the project’s individual impacts are significant, even if there were no significant cumulative impact from all projects taken together. First, as indicated in the attached letter from Paul Rosenfeld and Jessie Jaeger, the Project causes at least 42 excess cancers in one million. This impact is four times the 10-excess cancer threshold used by the majority of California Air districts, including BAAQMD, to assess the significance of single source impacts. Indeed, the Project’s excess cancers nearly double the total ambient cancer risk. Finally, regardless of the conclusion that the EIR might have reached had it provided a project-specific analysis, the EIR is insufficient as an informational document without this analysis. To correct this error, the EIR should be revised and recirculated.

## **II. The SEIR’s assessment of cumulative TACs is invalid because it fails to include all sources of related impacts.**

As set forth in the attached letter from Jessie Jaeger and Paul Rosenfeld, the SEIR fails to include foreseeable future development in its analysis of cumulative TAC health risks. In particular, the SEIR fails to include the TAC emissions from the future construction and operation of the Mission Bay area redevelopment projects. This build-out was projected in the Mission Bay EIR to generate 218,549 vehicle trips and 2,684 truck trips per day. Because the EIR projects that excess cancers will be at least 86 per one million with the existing development plus the Project, this level of additional traffic clearly has the potential to cause excess cancers to exceed the 100 excess cancer threshold identified by the EIR as the threshold for a significant cumulative impact.

Cumulative analysis must include all sources of “related impacts,” including past, present, and potential future projects. (CEQA Guideline, § 15130(a)(1), (b).) The unjustified omission of related sources of TACs is an error because without this disclosure the public and decision makers cannot “determine whether such information would have revealed a more severe impact.” (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720, 724.) The future development of the rest of the Mission Bay project is clearly foreseeable because it has already been approved at the program level. The Warriors Arena Project is but one phase of the overall Mission Bay project. The California Supreme Court has held that it is error for an EIR for one phase of a project to omit impacts from future phases in its analysis of cumulative impacts. (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 396.) The omission of this foreseeable future development is error.

The DSEIR implies that that impacts from future development may be ignored because “[o]ther future projects, whose emissions have not been incorporated into the existing Citywide health risk modeling . . . would similarly be subject to CEQA requirements to analyze the health risk impact of their project.”<sup>1</sup> (DSEIR, p. 4.4-28.) However, the SEIR may not tier from future environmental reviews: “CEQA’s informational purpose ‘is not satisfied by simply stating information will be provided in the **future**.” (*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 440-441 (emphasis in original).)



**III. The SEIR's assessment of TAC health risks is inadequate because it ignores current OEHHA guidance.**

Comments on the DSEIR objected that the health risk assessment fails to use the most recent OEHHA Air Toxics Hotspots Program Risk Assessment Guidelines. OEHHA has revised its daily breathing rate for children upward to 1,090 L/kg-day, almost doubling the 581 L/kg-day breathing rate from the outdated 2000 guidelines used by the DSEIR. In response, the FSEIR does not dispute the validity of the new guidance and admits that BAAQMD intends to use the revised guidance in the future, but declined to provide an assessment of health risks based on the new guidance.

Children are the most vulnerable to TAC exposure, as evidenced by the elevated excess cancer rates for children as compared to adults. (See, e.g., DSEIR, Table 5.4-11, p. 5.4-49). The area of maximum vulnerability to TAC's from the project happens to be a children's hospital.

As the attached letter from Paul Rosenfeld and Jessie Jaeger indicates, contrary to the FSEIR, OEHHA published and recommended use of higher, differential breathing rates for children well before the SEIR's health risk assessment was prepared. Rosenfeld and Jaeger demonstrate that if excess cancers were determined using the OEHHA guidance for children's breathing rate rather than the outdated 2000 guidance, the excess cancers for the maximally exposed receptors at the UCSF Benioff Children's Hospital would in fact substantially exceed the 100 excess cancer threshold used by the DSEIR to determine a significant cumulative impact. Based on the threshold of significance adopted by the SEIR, the Project would make a considerable contribution to this significant cumulative impact because the Project adds well more than 10 excess cancers to this total. Thus, the SEIR's failure to use the most recent scientific data and its failure to provide reasoned analysis in response to comments requesting this analysis results in a failure to disclose this significant cumulative impact.

Refusal to respond to responsible comments from experts regarding analytic parameters with reasoned analysis, as well as mischaracterization of the currency of those Parameter, are failures to meet CEQA's disclosure obligations. For example, a court set aside an analysis of TAC's that was based on outdated CARB guidance after comments pointed out this flaw and the final EIR declined to provide corrected analysis:

"... the use in the final EIR of data extrapolated from CARB's 1991 speciation profile # 508 for measuring aircraft emission of TAC's did not meet the standard of "a good faith effort at full disclosure" required by CEQA. (Guidelines, § 15151.) " "[W]here comments from responsible experts or sister agencies disclose new or conflicting data or opinions that cause concern that the agency may not have fully evaluated the project and its alternatives, these comments may not simply be ignored. *There must be good faith, reasoned analysis in response.*" ' ' ' (Cleary v. County of Stanislaus (1981) 118 Cal.App.3d 348, 357, 173 Cal.Rptr. 390, original italics.) By using scientifically outdated information derived from the 1991 profile, we conclude the EIR was not a reasoned and good faith effort to inform decision makers and the public about the increase in TAC emissions that will occur as a consequence of the Airport expansion.

(*Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs* (2001) 91 Cal.App.4th 1344, 1367 [111 Cal.Rptr.2d 598, 615], as modified on denial of reh'g (Sept. 26, 2001).)

Here, the EIR should be revised and recirculated to provide a health risk assessment that is based on current science regarding the parameters that determine actual risk to children.

**Footnote:**

<sup>1</sup> The DSEIR mentions Pier 70 and Seawall Lot 337/Pier 48 as examples of such future projects, and then dismisses their impacts because they are allegedly too distant to affect the same receptors. (DSEIR, p. 5.4-28). But the DSEIR ignores the Mission Bay buildout adjacent to the project.

(*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-10]*)



The FSEIR fails to resolve several issues raised in comments to the DSEIR. We maintain that the SEIR's health risk assessment remains flawed for three reasons:

- The FSEIR fails to provide a project-specific health risk assessment for the Project. The thresholds of significance and the analysis in the FSEIR provide only a cumulative impact analysis. Thus, the FSEIR fails to consider whether the Project's toxic air contaminant (TAC) emissions are, by themselves, a significant impact. Although the FSEIR fails to identify a threshold of significance for project-specific effects, Project-caused excess TAC cancers are more than four times the threshold used by most California air districts to determine the significance of an individual project's impacts.
- The FSEIR fails to include all foreseeable sources of TAC emissions in its cumulative impact analysis, as it omits foreseeable future construction and operation of developments approved in the vicinity of the Project. The health risk assessment should be revised to include TAC emissions from these sources, as they could potentially result in a significant cumulative impact.
- The FSEIR fails to incorporate updated child breathing rates, set forth by OEHHA, in its health risk assessment. Even though OEHHA published these higher breathing rates for children in 2012 and recommends that TAC analyses use these rates, and even though comments requested that the FSEIR provide an updated analysis using these breathing rates, the FSEIR failed to do so.

#### **Failure to Assess Individual Health Risk from Proposed Project**

In our July 27, 2015 comment letter, we found that the DSEIR failed to adequately evaluate the health risk posed to nearby sensitive receptors from exposure to toxic air contaminants (TACs) emitted during Project construction and operation. We maintain that the FSEIR incorrectly relies upon criteria used to identify communities located within an Air Pollutant Exposure Zone (APEZ), as defined by Article 38 under the San Francisco Health Code, and propose that the Project's individual health risk and PM<sub>2.5</sub> emissions be compared to the Bay Area Air Quality Management District's (BAAQMD) project-level significance thresholds of 10 in one million and 0.3 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), respectively.<sup>1</sup>

As we pointed out in our July 27 letter, to evaluate the cumulative and individual health risk impacts of the Project, the DSEIR relies upon criteria used to define communities located within an APEZ. The DSEIR states,

“an APEZ [is] defined as an area in which modeled air pollution exceeds either: (1) a cancer risk of greater than 100 per one million exposed, and/or (2) PM<sub>2.5</sub> concentrations in excess of 10 microgram per cubic meter ( $\mu\text{g}/\text{m}^3$ ) (including ambient)” (Appendix AQ, p. 9).

Using these criteria, both the DSEIR and the FSEIR's Responses concluded that because the Project's health risk, combined with background ambient sources, would not result in sensitive receptor locations meeting the Air Pollutant Exposure Zone criteria, the Project would have a less-than-significant health risk impact (FSEIR, p. 13.13-25). The FSEIR states,

“The project site is not within an Air Pollutant Exposure Zone and, based on citywide modeling, the highest mitigated risk at a receptor near the project site (UCSF Hospital) from the contribution of emissions from all modeled sources is an excess cancer risk of 86 per one million persons exposed with an increased risk of 44 per one million due to background ambient sources and the remainder from modeled vehicles (construction and operation) and stationary source contributions from the project. These levels are below the SEIR threshold levels for identifying when sensitive populations may be exposed to substantial pollutant concentrations.” (DSEIR p. 5.4-27; FSEIR p. 13.13-26).

The APEZ 100 excess cancer threshold is a threshold for cumulative analysis, not for evaluation of project-specific impacts. CEQA requires both assessments. BAAQMD's project-specific threshold of significance of 10 excess cancers is for “single source impacts,” thus, a single source such as the



Project should be deemed to have a significant impact if it causes 10 or more excess cancers regardless of cumulative conditions.

The 10 excess cancers threshold is widely used by California Air Districts as a threshold for project-specific impacts. The California Air Pollution Control Officers Association reports that, for TACS, “[f]or the majority of the air districts the excess cancer risk significance threshold is set at 10 in a million.”<sup>2</sup> For example, the San Luis Obispo Air Pollution Control District finds that individual projects that generate over 10 excess TAC cancers have significant impacts.<sup>3</sup>

We maintain that the FSEIR’s application of APEZ criteria to ignore the significance of project-specific impacts fails to disclose that the Project will expose sensitive populations to substantial pollutant concentrations, as discussed below.

Since the Project is not proposing to construct residential land uses on-site, it will not expose new on-site sensitive receptors to substantial air pollutant concentrations. There are, however, off-site sensitive receptors within the Project vicinity that could be potentially exposed to pollutants emitted by the Project. Sensitive receptor locations located within 1,000 feet of the Project site include: the UCSF Hearst Tower, the Madrone Mission Bay Residential Towers, and the UCSF Hospital (see table below) (p. 5.4-17).

**TABLE 5.4-5  
SENSITIVE RECEPTORS IN THE PROJECT SITE VICINITY**

Receptor Type	Distance and Direction from the Project Site
Residential: UCSF Mission Bay Housing (Hearst Tower), Block 22	200 feet northwest
Residential: Madrone Mission Bay Residential Towers	800 feet to the north, on Mission Bay Boulevard North
Hospital: UCSF Benioff Children’s Hospital facility at Mission Bay, plus the UCSF Betty Irene Moore Women’s Hospital and the UCSF Bakar Cancer Hospital	300 feet southwest

Additionally, the DSEIR assessed the risk posed to the UCSF Mission Bay day care facility, located approximately 1,300 feet to the west (p. 5.4-16). Of the sensitive receptor locations evaluated in the DSEIR, a child resident at the UCSF Hospital was found to be the most affected by the Project. As pointed out in the FSEIR Responses, the maximally exposed sensitive receptor location had an estimated background ambient risk of approximately 44 in one million (p. 13.13-26). Mitigated emissions from Project operation and construction at that location would increase this risk to approximately 86 in one million excess cancers (see table below) (Volume 3, pp. 1225).

Source	Lifetime Excess Cancer Risk at off-site Receptors			
	Excess Cancer Risk (in one million)			
	UCSF Hearst Tower		UCSF Hospital Receptor	Uber/ARE Receptor
	Child Resident	Adult Resident	Child Resident	Daycare Child
Background at the maximally impacted receptor	26	26	44	20
Uncontrolled Construction Contribution	54	2.8	28	73
Controlled (Tier 2 + NOx VDECS) Construction Contribution	9.2	0.48	4.8	12.5
Project Operations – Generators	30	30	30	30
Project Operations – Mobile Sources	7.2	7.2	7.2	7.2
Cumulative Total (Uncontrolled/with Mitigation)	117/ 72	66/ 64	109/ 86	131/ 70
Significance Threshold	100	100	100	100
Significant (Uncontrolled/with Mitigation)?	Yes/ No	No/ No	Yes/ No	Yes/ No

The Project’s emissions, alone, nearly double the health risk posed to a child resident at this sensitive receptor location. Similarly, the Project increases the total risk posed to a child resident at the UCSF Hearst Tower sensitive receptor location by a factor of 2.8, increases the total risk posed to an adult resident at the UCSF Hearst Tower location by a factor of 2.5, and increases the total risk posed to a daycare child at the Uber/ARE location by a factor of 3.5 (see table below). The Project’s



excess cancers are well in excess of the 10 in one million threshold used by BAAQMD and most California Air districts to determine the significance of an individual project's impact.

Sensitive Receptor	Background Risk	Project Risk	Total Risk	Factor by which Risk Increases Due to Project
	<i>Excess Cancers in One Million</i>			<i>Total Risk/Background Risk</i>
UCSF Hearst Tower Child Resident	26	46	72	2.8
UCSF Hearst Tower Adult Resident	26	38	64	2.5
UCSF Hospital Child Resident	44	42	86	2.0
Uber/ARE Daycare Child	20	50	70	3.5

The fact that the FSEIR concludes that the Project would not expose sensitive populations to "substantial pollutant concentrations," even though the Project's contributions are equal to or greater than the background health risk at every sensitive receptor location is absolutely absurd. Simply because the Project "would not result in sensitive receptor locations meeting the Air Pollutant Exposure Zone criteria" does not mean that the Project will have a less-than-significant health risk impact, and the FSEIR is wrong to make such a ridiculous assumption (p. 13.13-25). The fundament problem is that the FSEIR entirely fails to consider whether the Project's own TAC impact is a significant impact regardless of the cumulative context.

#### **Cumulative Impact Analysis Fails to Account for All Past, Present and Future Sources**

The DSEIR utilizes background ambient risk values from a local-scale citywide modeling effort conducted in 2012, and then combines the Project's health risk to this background risk to determine whether or not the Project would have a cumulatively considerable impact. Using this method, the DSEIR concludes that with mitigation, the Project would have a less-than-significant cumulative health risk impact (p. 5.4- 49). This determination, however, is based on a flawed analysis that fails to account for "all past, present, and foreseeable future sources."<sup>4</sup> As a result, the Project's cumulative health risk impact is greatly underestimated.

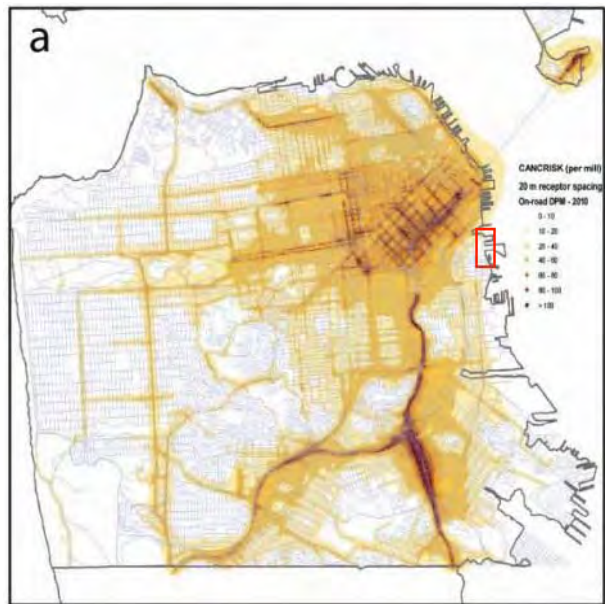
As previously stated, the ambient background health risk values, relied upon by the DSEIR, were derived from a city wide modeling effort. The methods used and specific emission sources included in this model can be found in The San Francisco Community Risk Reduction Plan: Technical Support Documentation.<sup>5</sup> According to this report, direct emissions from on-road mobile sources on freeways and streets with traffic volumes of more than 1,000 vehicles per day, permitted stationary sources, Caltrain passenger diesel locomotives, ships and harbor craft, local transit buses, and major construction projects in 2010 and 2025 were modeled. Emissions from indirect sources that generate vehicle trips such as distribution centers, retail centers, and postal service stations were not included in the model because they "were judged to be less important than similar sources that are included, such as the case of indirect sources (whose contribution is small compared to freeway and street traffic)..."<sup>6</sup>

While contributions from indirect sources may be negligible when compared to emissions from freeways and major streets, they could present a significant impact relative to local emissions near the Project site for several reasons.

First, the Project site is not located near any major freeways or streets that meet the above criteria; therefore, local impacts from mobile-source emissions within the Project vicinity were not accounted for. This statement is supported by data presented in The San Francisco Community Risk Reduction Plan: Technical Support Documentation. As evident from the figure below, excess cancer risks from direct on-road mobile emissions in 2010 within the Project area were not accounted for, as the entire area is white.<sup>7</sup>



**2010 Cancer risk from diesel exhaust emitted by on-road vehicles**



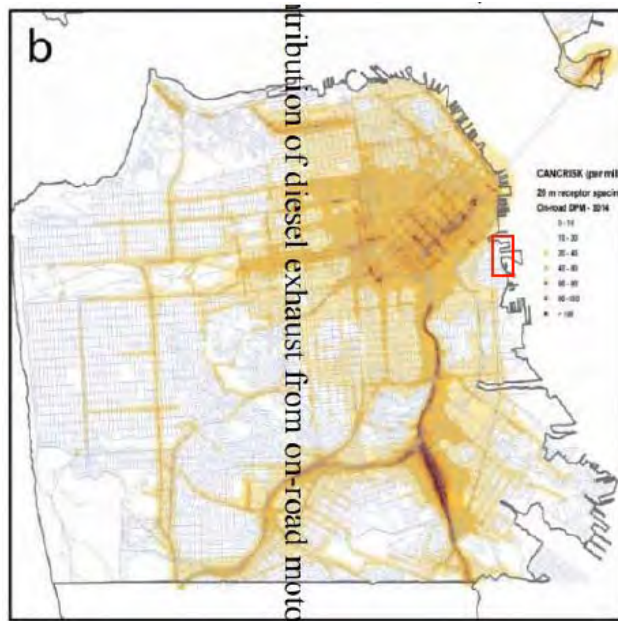
**2010 Cancer risk from total organic gases emitted by on-road vehicles**



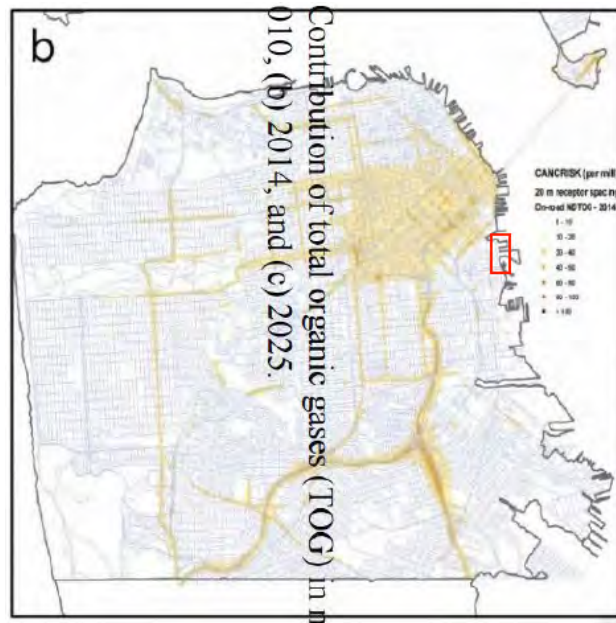
Similarly, figures for projected cancer risks from on-road mobile emissions in 2014 and 2025 demonstrate that these sources were not considered for future years (see figures below).



**2014 Cancer risk from diesel exhaust emitted by on-road vehicles**

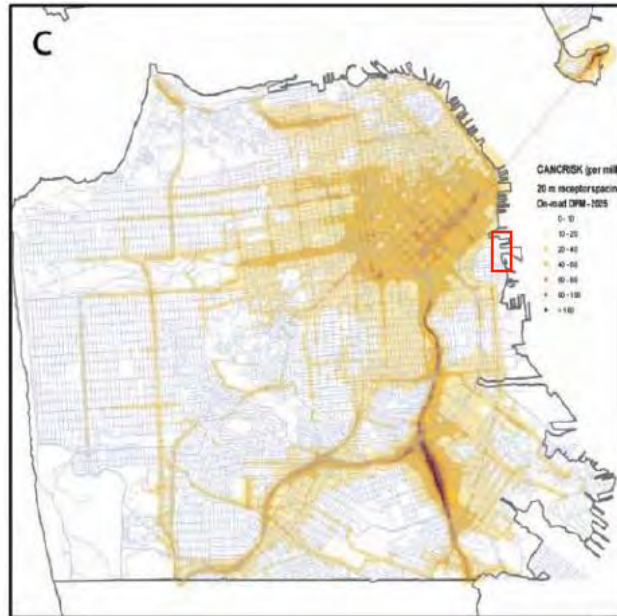


**2014 Cancer risk from total organic gases emitted by on-road vehicles**

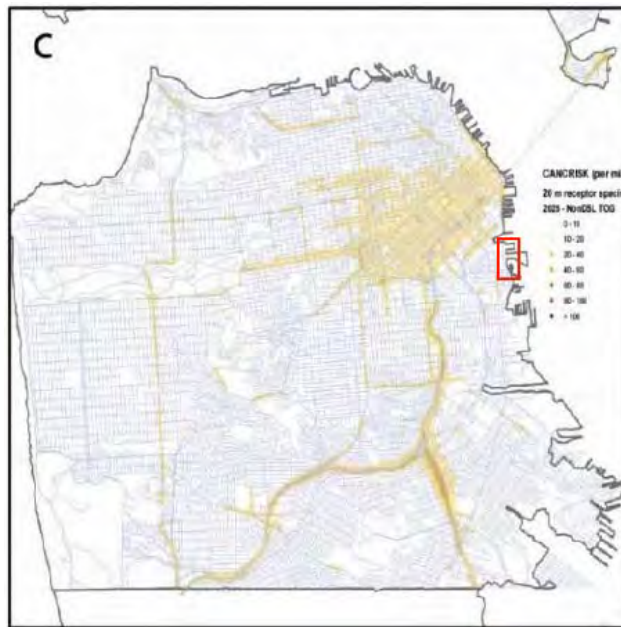




**2025 Cancer risk from diesel exhaust emitted by on-road vehicles**



**2025 Cancer risk from **total organic gases** emitted by on-road vehicles**



Second, major developments within the Project area were under construction at time of modeling. These new developments are anticipated to generate a significant number of vehicle trips, thus increasing the amount of diesel particulate matter (DPM) and TAC emissions nearby sensitive receptors would be exposed to.

The DSEIR recognizes that emissions from all "foreseeable future sources" were not accounted for when evaluating the Project's cumulative health risk impact. The DSEIR states,

"The HRA takes into account the cumulative contribution of localized health risks to sensitive receptors from sources included in the Citywide modeling plus the proposed project's sources. Other future projects, whose emissions have not been incorporated into the existing Citywide



health risk modeling, such as Pier 70 and Seawall Lot 337/Pier 48 would similarly be subject to CEQA requirements to analyze the health risk impact of their project. However, health risk impacts are localized, and health risks from sources decrease substantially with increasing distance. Thus cumulative impacts from the Pier 70 and Seawall Lot 337/Pier 48 would not combine with the proposed project's emissions to substantially increase health risks within the project vicinity. Thus, because the project-level analysis includes health risks from all known existing sources, the project-level analysis is also a cumulative health risk analysis" (p. 5.4-28).

While the two projects discussed in the DSEIR would not necessarily contribute to the local health risk impact, there are many other projects located within the Project vicinity that could contribute to localized health risks. The proposed Project is one of many developments included in the Mission Bay Redevelopment Area (see figure below).<sup>8</sup>

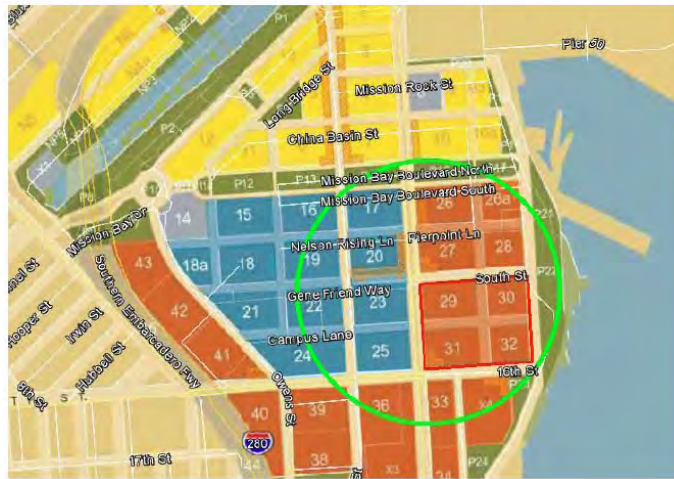


According to the Mission Bay EIR, at buildout, the proposed developments are anticipated to generate approximately 218,549 vehicle trips per day, and approximately 2,684 truck trips per day (see table below).<sup>9</sup>

Project Land Use	Daily Vehicle Trips	Annual Vehicle Trips	Daily Truck Trips	Annual Truck Trips
Mission Bay North	73,710	26,904,150	674	246,010
Mission Bay South	144,839	52,866,235	2,010	733,650
<b>Total Project</b>	<b>218,549</b>	<b>79,770,385</b>	<b>2,684</b>	<b>979,660</b>

Once construction of the proposed Mission Bay developments are completed, the DPM and TAC emissions from operational mobile-sources alone could result in a potentially significant impact on local health risk. The health risk conducted in the DSEIR failed to account for these additional "foreseeable future sources," and as a result, the Project's cumulative health risk impact is underestimated. It should be noted that the proposed developments encompass approximately 300 acres of land. As is demonstrated in the figure below, a significant portion of the proposed developments are within 1,000 feet of the Project site.



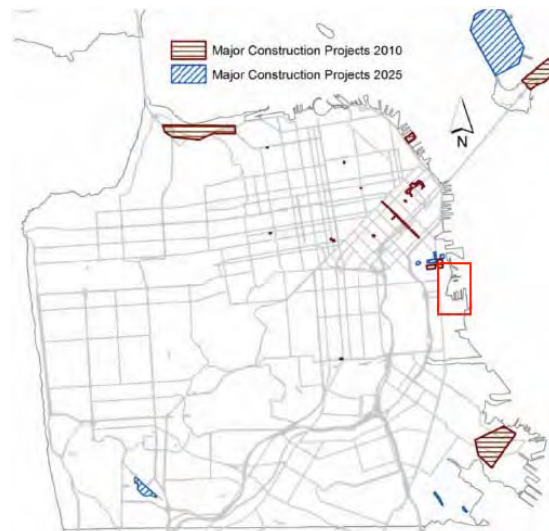


Therefore, the indirect vehicle emissions generated by the portion of developments located within 1,000 feet could still significantly contribute to the local cancer risk. When impacts from these sources are accounted for, the mitigated health risk at the UCSF Hospital of 86 in one million could substantially increase, potentially to a level in exceedance of the 100 in one million threshold.

Finally, construction emissions from major developments within the area, while analyzed, were not included in the citywide model. Modeled background ambient cancer risk relied upon by the DSEIR does account for major construction projects approved at time of modeling, including ones at Mission Bay. However, the analysis conducted was extremely limited, and the results of this analysis were not included in the total citywide model. The San Francisco Community Risk Reduction Plan: Technical Support Documentation report states,

“No emission estimates were made for project year 2014. Emissions were estimated to represent the phase of construction expected to occur over the course of the modeling year and are not meant to encompass the entire project construction. Only exhaust emissions from construction equipment were included in the inventory; the analysis did not quantify emissions from fugitive dust or road dust. Health risk estimated from the emissions of construction projects are for informational purposes only and were not included in the city-wide assessment.”<sup>10</sup>

As is evident from the figure below, there are major construction projects underway in 2010 within the vicinity of the Project, and major construction projects anticipated to occur in 2025.<sup>11</sup>





By failing to account for the additional impacts from these local sources, the cumulative health risk impact at the Project site is greatly underestimated.

**Failure to Utilize Values from Updated Health Risk Assessment Guidelines**

In February 2015, the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) released updated health risk assessment guidelines that require risk calculations for specific age groupings.<sup>12</sup> The FSEIR fails to incorporate recommended age specific inhalation rates set forth in this updated guidance document, arguing that "air districts do not always adopt OEHHA methodologies verbatim or immediately" (p. 13.13-50, 13.13-51). While this may be true, OEHHA is the regulatory agency responsible for determining what default values should be used within a health risk, and until the Air District updates its health risk guidance to reflect OEHHA's proposed updates, recommendations set forth by OEHHA should be used. Furthermore, these age-specific breathing rates were formally adopted and implemented prior to adoption of this most recent guidance (March 2015), contrary to what the FSEIR suggests. Due to these reasons, prior to certification of the FSEIR, an updated health risk assessment should be prepared to include these updated values.

OEHHA was tasked with to developing guidelines for conducting health risk assessments under the Air Toxics Hot Spots Program (Health and Safety Code Section 43360(b)(2)). OEHHA initially developed Technical Support Documents (TSDs) in 1999-2000 in response to this statutory requirement. Since 2000, they have revised and adopted TSDs in an effort to present updated methodologies that reflect scientific knowledge and techniques developed since the previous guidelines were prepared; in particular, to explicitly include consideration of possible differential effects on the health of infants, children and other sensitive subpopulations, in accordance with the mandate of the Children's Environmental Health Protection Act (Senate Bill 25, Escutia, Chapter 731, Statutes of 1999, Health and Safety Code Sections 39669.5 et seq.).<sup>13</sup>

Updated breathing rates for children and infants were adopted by OEHHA more than two years prior to the time the FSEIR's health risk assessment was conducted. In August of 2012, OEHHA formally adopted the *Technical Support Document for Exposure Assessment and Stochastic Analysis*.<sup>14</sup> Chapter three of this document discusses "age-specific breathing rates for use in health risk assessments for short-term exposure...and for long-term daily average exposures resulting from continuous or repeated 8-hour exposure."<sup>15</sup> OEHHA recommends the long-term daily breathing rates in Table 3.1 of this document (see excerpt below).

**Table 3.1. Recommended Point Estimates for Long-Term Daily Breathing Rates**

	3 <sup>rd</sup> Trimester	0<2 years	2<9 years	2<16 years	16<30 years	16<70 years
<b>L/kg-day</b>						
Mean	225	658	535	452	210	185
95th Percentile	361	1090	861	745	335	290
<b>m<sup>3</sup>/day</b>						
Mean	15.3	6.2	10.7	13.3	15.0	13.9
95th Percentile	23.4	11.2	16.4	22.6	23.5	22.9

Therefore, to provide an appropriate analysis of the health effects on children, the 95th percentile breathing rates for children should have been applied at the time the analysis was conducted, and should be applied now in an updated health risk assessment in an effort to determine the potential cancer risk posed to children and infants residing near the Project site.

The DSEIR utilizes a breathing rate of 581 L/kg-day for children at each sensitive receptor location, and uses a breathing rate of 302 L/kg-day for an adult resident (see table below) (Appendix AQ, Table 6.1-7).



Exposure Parameter	Units	Construction			
		Child Resident	Adult Resident	Hospital Child	Daycare Child
Daily Breathing Rate (DBR) <sup>1</sup>	[L/kg-day]	581	302	581	581
Exposure Time (ET) <sup>2</sup>	[hours/24 hours]	24	24	24	11
Exposure Frequency (EF) <sup>3</sup>	[days/year]	350	350	365	253
Exposure Duration (ED) <sup>4</sup>	[years]	2.0	2.0	1.0	0.67
Averaging Time (AT)	[days]	25,550	25,550	25,550	25,550
Intake Factor, Inhalation (IF <sub>inh</sub> )	[m <sup>3</sup> /kg-day]	0.016	0.0083	0.0083	0.0018
Cancer Risk Adjustment Factor <sup>5</sup>	[-]	10	1.0	10	10
Modeling Adjustment Factor <sup>6</sup>	[-]	N/A	N/A	N/A	3.15

In an effort to demonstrate how greatly the breathing rates affect the overall health risk posed to each sensitive receptor, we conducted a simple analysis where we kept every health risk parameter the same, and only changed the breathing rates between the two assessments. Using the DSEIR's child breathing rate of 581 L/kg-day, and assuming that each receptor would be exposed to an ambient air concentration of 0.5 µg/m<sup>3</sup> for two years, we estimated a child resident cancer risk of 88 in one million (see table below).

Parameter	Description	Units	Child
Cair	Concentration	µg/m <sup>3</sup>	0.5
DBR	Daily breathing rate	L/kg-day	581
EF	Exposure Frequency	days/year	350
ED	Exposure Duration	years	2
AT	Averaging Time	days	25550
	Inhaled Dose	(mg/kg-day)	8.17E-06
CPF	Cancer Potency Factor	1/(mg/kg-day)	1.1
ASF	Age Sensitivity Factor	-	10
<b>Cancer Risk (in one million)</b>			<b>88</b>

When OEHHA's updated breathing rate of 1,090 L/kg-day is used, we estimate a child resident cancer risk of 164 in one million (see table below).

Parameter	Description	Units	Child
Cair	Concentration	µg/m <sup>3</sup>	0.5
DBR	Daily breathing rate	L/kg-day	1090
EF	Exposure Frequency	days/year	350
ED	Exposure Duration	years	2
AT	Averaging Time	days	25550
	Inhaled Dose	(mg/kg-day)	8.17E-06
CPF	Cancer Potency Factor	1/(mg/kg-day)	1.1
ASF	Age Sensitivity Factor	-	10
<b>Cancer Risk (in one million)</b>			<b>164</b>

This simple analysis demonstrates that when the updated breathing rate for a child receptor is utilized, the cancer risk is nearly doubled.

It is particularly critical that the analysis consider the actual impacts of TACs on child receptors based on their actual breathing rates because the maximally exposed receptors near the Project site are children, including children at the UCSF Benioff Children's Hospital.

### Conclusion

The FSEIR remains inadequate as an assessment of the health risks from the Project's TAC emissions, both by itself and cumulatively in combination with other TAC sources. It should be revised to provide a project-specific analysis, to provide a cumulative analysis that includes all foreseeable future projects, and to assess TAC impacts to children based on current science and OEHHA guidance.

### Footnotes:

<sup>1</sup> "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2011, available at: [http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines\\_May%202011\\_5\\_3\\_11.ashx](http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx), p. 5-3



- <sup>2</sup> "Health Risk Assessments for Proposed Land Use Projects," California Air Pollution Control Officers Association 2009, page 11, available at: [http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA\\_HRA\\_LU\\_Guidelines\\_8-6-09.pdf](http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf).
- <sup>3</sup> CEQA Air Quality Handbook, A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review, San Luis Obispo Air Pollution Control District 2012, available at: [http://www.slcleanair.org/images/cms/upload/files/CEQA\\_Handbook\\_2012\\_v2%20Updated%20Sept%202015%29.pdf](http://www.slcleanair.org/images/cms/upload/files/CEQA_Handbook_2012_v2%20Updated%20Sept%202015%29.pdf).
- <sup>4</sup> "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2011, available at: [http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines\\_May%202011\\_5\\_3\\_11.ashx](http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx), p. 2-5
- <sup>5</sup> "The San Francisco Community Risk Reduction Plan: Technical Support Documentation." BAAQMD, December 2012, available at: [http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2012\\_12\\_BAAQMD\\_SF\\_CRRP\\_Methods\\_and\\_Finding\\_s\\_v9.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Finding_s_v9.pdf)
- <sup>6</sup> "The San Francisco Community Risk Reduction Plan: Technical Support Documentation." BAAQMD, December 2012, available at: [http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2012\\_12\\_BAAQMD\\_SF\\_CRRP\\_Methods\\_and\\_Finding\\_s\\_v9.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Finding_s_v9.pdf), p. 4
- <sup>7</sup> "The San Francisco Community Risk Reduction Plan: Technical Support Documentation." BAAQMD, December 2012, available at: [http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2012\\_12\\_BAAQMD\\_SF\\_CRRP\\_Methods\\_and\\_Finding\\_s\\_v9.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Finding_s_v9.pdf), p. 40, 42
- <sup>8</sup> Mission Bay Land Use Plan, November 2005, available at: <http://sfocii.org/Modules/ShowDocument.aspx?documentid=783>
- <sup>9</sup> "Final Mission Bay Subsequent Environmental Impact Report." San Francisco Planning Department, September 17, 1998, available at: <http://www.sfocii.org/index.aspx?page=61>
- <sup>10</sup> "The San Francisco Community Risk Reduction Plan: Technical Support Documentation." BAAQMD, December 2012, available at: [http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2012\\_12\\_BAAQMD\\_SF\\_CRRP\\_Methods\\_and\\_Finding\\_s\\_v9.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Finding_s_v9.pdf), p. 23.
- <sup>11</sup> "The San Francisco Community Risk Reduction Plan: Technical Support Documentation." BAAQMD, December 2012, available at: [http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2012\\_12\\_BAAQMD\\_SF\\_CRRP\\_Methods\\_and\\_Finding\\_s\\_v9.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Finding_s_v9.pdf), p. 34
- <sup>12</sup> Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessment." Office of Environmental Health Hazard Assessment, February 2015, available at: [http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html)
- <sup>13</sup> Adoption of the Revised Air Toxics Hot Spots Program Technical Support Document for Cancer Potency Factors, Office of Environmental Health Hazard Assessment, June 1, 2009, available at: [http://www.oehha.ca.gov/air/hot\\_spots/tsd052909.html](http://www.oehha.ca.gov/air/hot_spots/tsd052909.html)
- <sup>14</sup> Adoption of the Revised Air Toxics Hot Spots Program Risk Assessment Guidelines: Revised Technical Support Document for Exposure Assessment and Stochastic Analysis, Office of Environmental Health Hazard Assessment, August 27, 2012, available at: [http://www.oehha.ca.gov/air/hot\\_spots/tsd082712.html](http://www.oehha.ca.gov/air/hot_spots/tsd082712.html)
- <sup>15</sup> [http://www.oehha.ca.gov/air/hot\\_spots/pdf/2012tsd/Chapter3\\_2012.pdf](http://www.oehha.ca.gov/air/hot_spots/pdf/2012tsd/Chapter3_2012.pdf) p. 3-1

(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-11])

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## Response to Late Comment AQ-3: Health Risk Assessment

### *Health Risk Significance Threshold*

The comments state that the BAAQMD recommended threshold for individual projects (10 per one million) was ignored. As explained in Response AQ-1c of Chapter 13, Section 13.13 of the RTC document, a lead agency has discretion to determine the appropriate threshold of significance to evaluate the severity of a particular impact. OCII has selected a threshold that SF Planning applies to all projects in San Francisco, a threshold that relies on the San Francisco City-Wide Health Risk Assessment (HRA), which was conducted by the BAAQMD and the San Francisco Department of Public Health. This threshold incorporates risk estimates on a detailed and local level. RTC Response AQ-1c cites case law that a lead agency is not required to adopt the same threshold as other agencies. In fact, the threshold selected by OCII reflects the BAAQMD thresholds of significance and is based on a City-wide risk assessment that the BAAQMD themselves completed. The project site conditions are such that a single-source threshold did not apply in this instance as explained in RTC Response AQ-1c.



The commenter's citation and inclusion of the San Luis Obispo Air Pollution Control District construction risk threshold of 10 in one million is noted. In contrast, some air districts, such as the San Joaquin Valley APCD, do not have a construction risk threshold at all. The relevant threshold for this project is that selected by OCII, which is applied to all projects in San Francisco, and is described above.

A project-specific threshold may be appropriate in those areas where overall excess cancer risks have not been determined. Where this information is unavailable, it may be appropriate to adopt a threshold focusing on the cancer risk associated with an individual project. In this instance, however, a City-wide HRA is available. The appropriate focus is therefore whether TAC emissions from this project, in combination with those shown in the City-wide HRA, exceed the threshold of 100 in one million. Under such circumstances, OCII has discretion to evaluate the project's TAC emissions in the context of cumulative excess cancer risk. (See *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 932-934 [upholding reliance on air district guidance that recommended against separate analysis of project-specific and cumulative emissions].)

#### ***Project-specific Health Risk Assessment***

The comments refer to an out-of-date analysis that was presented in the Draft SEIR, reflecting a project contribution to cancer risk of 42 in one million, which has since been refined in the RTC document. RTC document, Chapter 12, Project Refinements and New Variant, describes these refinements. An updated and more refined risk analysis was performed as a result of availability of information on specific locations of the proposed generators. Consequently, rather than relying on a screening level analysis that assumed the maximum possible risk from permitted sources (the proposed generators), it now became possible to include the diesel particulate emissions from the generators in the dispersion model and accurately and conservatively predict the resultant risks inclusive of generator emissions.

Table 6.1-8 of RTC Chapter 14, Draft SEIR Revisions, Section AQ2 Supplemental Air Quality Supporting Information, presents the updated risk analysis that shows that at that receptor, which is the Maximally Exposed Individual Sensitive Receptor (MEISR), the construction plus project contribution to lifetime incremental excess cancer risk (not "excess cancers" as the commenter mistakenly states) is 12 in one million. As described above, OCII has elected to use the cumulative health risk threshold of 100 in one million as the appropriate standard of significance for this project. It should be noted, though, that the project operational incremental cancer risk of 7.3 in one million at the MEISR is below the BAAQMD single-source threshold of 10 in one million, as is the project construction incremental cancer risk after mitigation at the MEISR of 4.9 in one million.

In Comment O-MBA20L7-11, SWAPE presents a table with its calculation of the "Factor by which Risk Increases Due to Project." These calculations are based on the analysis in the Draft SEIR. As noted above, the appropriate figures are presented in Table 6.1-8 of RTC Chapter 14, Draft SEIR Revisions, Section AQ2 Supplemental Air Quality Supporting Information. Using this updated information, the maximum Factor by which Risk Increases



Due to Project is 2.0, as shown in the table below, and at the MSEIR the Factor by which Risk Increases Due to Project is 1.3. In any event, the Factor by which Risk Increases Due to Project is irrelevant to the significance determination because all cumulative risks are well below the 100 in a million threshold adopted by San Francisco, as described above.

	Background Risk	Project Risk	Total Risk	Factor by which Risk Increases Due to Project
Sensitive Receptor	Excess Cancer Risk in One Million			Total Risk/Background Risk
UCSF Hearst Tower Child Resident	26	18	44	1.7
UCSF Hearst Tower Adult Resident	26	7.9	34	1.3
UCSF Hospital Child Resident	44	12	56	1.3
Uber/ARE Daycare Child	20	20	40	2.0

The comment also suggests the analysis for TAC health risk is inadequate, citing *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98,119, and *Los Angeles Unified School Dist. v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, 1025-1026. As noted in the comment, those cases explain that a cumulative impact analysis is used to determine whether a project's contribution to a significant impact would be cumulatively considerable and that the significance of a cumulative impact depends on the environmental setting in which it occurs. As explained above, the methodology used in the SEIR satisfies these requirements.

#### *Cumulative TAC Health Effects*

The comments express concern that the health risk impacts estimated in the SEIR may be underestimated because the analysis did not include foreseeable future development in the analysis of cumulative TAC health effects. Future development, including development in the Mission Bay Redevelopment Plan area, is included in SF Planning's City-wide HRA, which provides City-wide health risk assessments for 2025 and 2040. The complete Mission Bay Redevelopment Plan area growth is included at the program level in the City-wide HRA.<sup>7</sup>

The comment correctly notes that a cumulative analysis must include past, present, and probable future projects producing related or cumulative impacts, citing *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720, 724.

The comments express further concern that because the images in the City-wide HRA Technical Support Documentation do not show color shading over the project area, certain activities such as on-road mobile sources were not included in the background risk assessment. On the contrary, the City-wide HRA database includes health risk from the on-road mobile sources. The analysis in the RTC document incorporates the City-wide HRA database and as

<sup>7</sup> Bay Area Air Quality Management District, San Francisco Department of Public Health, and San Francisco Planning Department, *The San Francisco Community Risk Reduction Plan: Technical Support Documentation*, December 2012, page 24. Available online at [ftp.baaqmd.gov/pub/CARE/SFCRRP/SF\\_CRRP\\_Methods\\_and\\_Findings\\_v9.pdf](ftp.baaqmd.gov/pub/CARE/SFCRRP/SF_CRRP_Methods_and_Findings_v9.pdf) Accessed November 23, 2015



such includes all background sources of risk including on-road traffic. The lack of shading indicates the relative lower risks than that of the shaded areas.

Future construction projects such as those mentioned by SWAPE are either consistent with the specific plans in which they are located and for which environmental review is completed? or will undertake their own environmental review. At this time, it would be speculative to estimate impacts due to construction slated for 2025 or even within the next five years, as detailed emissions and activity inventories are not yet available.

The comment's citation to *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 396 (*Laurel Heights I*), is misplaced. In *Laurel Heights I*, the court held that an EIR's project description failed to include future phases of the project, and by doing so, improperly segmented or "piecemealed" the analysis of a single project into smaller parts. Here, the Draft SEIR analyzes all parts of the project, and the comment does not suggest otherwise. Further, as noted in the comment, all parts of the Mission Bay Plan were properly analyzed in previous program EIRs. Therefore, *Laurel Heights I*, is inapplicable.

The Draft SEIR does not ignore impacts from reasonably foreseeable future development. As explained in the Draft SEIR, the HRA takes into account the cumulative contribution of localized health risks to sensitive receptors from sources included in the Citywide modeling plus the proposed project's sources. That modeling encompassed build-out of adopted plans, including the Mission Bay Redevelopment Plan. (Draft SEIR, pp. 5.4-56.) Although the Draft SEIR notes that other future projects, whose emissions have not been incorporated into the existing Citywide health risk modeling, such as Pier 70 and Seawall Lot 337/Pier 48, would be subject to CEQA requirements to analyze the health risk impact, it does not rely on any future studies for those projects. Rather, the Draft SEIR explains that health risk impacts are localized, and health risks from sources decrease substantially with increasing distance. Thus cumulative impacts from the Pier 70 and Seawall Lot 337/Pier 48 would not combine with the proposed project's emissions to substantially increase health risks within the project vicinity. Because those projects would not result in cumulatively significant impacts when combined with the impacts of the project, they did not need to be included in the cumulative impacts analysis. (See CEQA Guidelines, § 15130, subd. (b) [cumulative impacts analysis should "focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact"].) Therefore, the comment's reliance on *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, is misplaced.

#### *Use of OEHHA Guidance*

The commenters cite 2015 OEHHA guidance regarding health risk assessments for AB 2588 Hot Spots analysis and suggest that the guidance should be followed in the SEIR. As described in Response AQ-5 in Chapter 13, Section 13.13 of the RTC document, air districts do not always adopt OEHHA methodologies verbatim or immediately; rather, the lead agency and the air district may each select the appropriate impact assessment techniques.



The 2015 OEHHA guidance, while relevant to CEQA, is designed specifically for Hot Spots Risk Assessments under AB 2588.

In this case, the BAAQMD adopted some parts of the 2015 OEHHA guidance early, namely the use of Age Sensitivity Factors. The Age Sensitivity Factors acknowledge and account for the heightened health effects of toxic air contaminant concentrations on younger children relative to adults.

The health risk analysis in the SEIR applies features of the 2015 OEHHA guidance cited by SWAPE, such as the application of the Age Sensitivity Factor, but does not use the 95th percentile of breathing rates by age category. This is consistent with current BAAQMD guidance and acknowledges the special characteristics of exposure in children.

The current circumstances are not analogous to those that existed in *Berkeley Keep Jets over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344. In that case, the EIR for an airport expansion plan stated that the public health impact of certain emissions was unknown, and that there was no standard for evaluating the risk associated with those emissions. The record showed, however, that the lead agency had been provided with “[v]oluminous documentary evidence” showing that an approved and standardized protocol that would enable the agency to conduct a health risk assessment did exist. The court held the agency violated CEQA because it had not analyzed health risks, despite readily available methods for doing so. (*Id.* at pp. 1368-1370.) In this case, the SEIR includes an analysis of health risks associated with TACs, including those TACs cited by the commenter. Nor does the SEIR deny the existence of the 2015 OEHHA guidance, or mischaracterize its contents. Rather, as explained above, the SEIR incorporates those aspects of the 2015 OEHHA guidance that have been incorporated into BAAQMD guidance. In short, the SEIR estimates risks associated with TAC emissions; those emissions have not been ignored.

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## Issues Raised by Late Commenters on Air Quality Significance Thresholds

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-12

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### **II. BAAQMD’s NSR-Derived Thresholds of Significance Used by the Lead Agency Continue to Under-Represent Project Emissions Significance**

In our comments submitted previously on the DSEIR, we noted that the BAAQMD’s CEQA thresholds of significance, applied by the Lead Agency to evaluate the Event Center project’s emission impacts, were developed non-scientifically from NSR values that were designed to counterbalance anticipated growth in stationary source facility emissions under the jurisdiction of the BAAQMD. An inherent problem with using NSR emission thresholds for constructing CEQA thresholds is that the 9-county air basin’s stationary sources represent no more than a small percentage of the total emissions inventory.



Vehicle emissions within the basin, by contrast, represent the lion's share of criteria pollutants and are chiefly responsible for the basin's ozone nonattainment designations that stretch back decades. Similarly, the region's nonattainment of particulate standards has been heavily influenced by vehicle emissions. To exemplify, fully 84% of NO<sub>x</sub> (ozone precursor) emissions in the Bay Area air basin are emitted by vehicles<sup>1</sup>, and not by stationary sources. The region has been designated nonattainment for PM<sub>2.5</sub>; fine particulate is generated almost entirely by combustion (including internal combustion occurring in vehicle engines), and monitored values in the region continue to climb annually; 28% of the total inventory is attributed to vehicles. Importantly, population (people) regionally continues its historical growth in lockstep with numbers of vehicles and vehicle-miles-traveled; despite substantial advances in technical on-vehicle controls and reductions in tailpipe emissions of both NO<sub>x</sub> and particulates over the years, the region continues to exceed federal and state air quality standards.

As we noted previously, establishing CEQA thresholds of significance levels using NSR levels is to automatically undercut emission reductions that should be obtained from each new "indirect source" (such as the Event Center that will attract new vehicle trips and related emissions) subject to CEQA review. By using outdated, non-scientifically designed NSR values, CEQA thresholds adopted by BAAQMD and borrowed for use by OCII will automatically underrepresent air emission significance, particularly when evaluated against past nonattainment designations and PM<sub>2.5</sub> ambient air monitoring values that, despite recession effects, continue to reflect a slowly worsening trend line.

At FEIR pg. 13.13-15, the Lead Agency states that ozone levels have declined 17% over the last 20 years, despite increases in VMT and vehicle population numbers. The implicit rationale here is that improvements in regional ozone numbers reflect validly-set CEQA threshold values and are to answer for some of that gain, yet this is not true. No evidence is provided by the Lead Agency to show that ambient air ozone monitoring data to support the 17% figure is linked causally to the levels at which the CEQA thresholds, based on under-representative NSR thresholds have been set for NO<sub>x</sub> and ROG precursor pollutants. Real reductions in NO<sub>x</sub> emissions over the last 20 years attributable by use of the District's CEQA NO<sub>x</sub> threshold on land use cases will represent, at mostly, only a tiny sliver of the total improvement picture if it represents any all. What answers for that 17% improvement statistic is not the District's CEQA thresholds that were set on the under-representative NSR lbs/day values, but the extraordinary reductions availed by increasingly stringent tailpipe standards invoked at the state and federal levels over the last five decades.

NO<sub>x</sub> and ROG are ozone precursors, and vehicle emissions controls and their related regulations and improvements have focused on them almost exclusively across the last several decades. To exemplify the gains, federal NO<sub>x</sub> tailpipe standards for cars dropped (becoming more stringent) 35% in 1977, then 50% more in 1981, then another 40% off the 50% in 1994, then another 50% from there in 1999, then, from that 1999 level another 77% through 2009 model year. For SUVs, vans, and heavier trucks between 6000-8500 lbs, NO<sub>x</sub> reductions were imposed with a 10% reduction required in 1994, and then with an additional 65% - 95% depending on vehicle type by 2009<sup>2</sup>. By comparison, the BAAQMD's NSR thresholds in 1999<sup>3</sup>, shown at FEIR pg. 13.13-15, were set at 15 tons per year for ROG, NO<sub>x</sub>, and PM<sub>10</sub>, equating to 80 lbs/day. Those NSR trigger levels would drop, once, to ten tons a year roughly a decade later, and CEQA thresholds upon which they were based were reduced similarly to current levels (54 lbs/day each for ROG, NO<sub>x</sub>; PM<sub>2.5</sub>; 82 lbs/day PM<sub>10</sub>). For the daily NO<sub>x</sub> threshold in effect now, this represents a 32.5 % reduction from the NSR-based 1999 threshold. How relevant was that to improving regional air quality, as judged by the 17% statistic? Comparing that reduction to the percentage NO<sub>x</sub> reductions contributed by increasingly stringent federal tailpipe emission standards, the Bay Area's tailpipe onroad NO<sub>x</sub>, formative of ozone air pollution, decreased by at least sixteen times that amount on a percentage basis. (32.5% NO<sub>x</sub> threshold value decrease vs. decrease in NO<sub>x</sub> onroad tailpipe standards of 35% x 50% x 40% x 50% x 77%, or a net reduction of almost 97% via onroad NO<sub>x</sub> standards.)

Clearly, any inference by the Lead Agency in the FEIR that the CEQA thresholds, having been set arbitrarily on under-representative NSR thresholds, are to account for the 17% regional improvement in ozone air pollution over the past 20 years is unsupported by the evidence. In fact, it can and should be argued that only a 17% regional ozone improvement, as judged against the



stunning improvements in mobile source emission reductions provided by federal and state regulation, is a clear and obvious indictment of the growth in indirect source emissions (including the 17 tons of ozone precursors likely underestimated for the Event Center project) resulting from BAAQMD's improperly designed, under-representative CEQA thresholds of significance.

Further underscoring that mobile source criteria pollutants are decreasing not from local air agency programs but as a result of state and federal ones, the most recent summary report, the BAAQMD's "Bay Area Emissions Inventory Summary Report: Criteria Pollutants Base Year 2011", at pg. 13 attributes regional ROG (an ozone pre-cursor) improvements:

"CARB regulations on mobile sources have also significantly reduced ROG emissions. On-road motor vehicle emissions have declined over the years despite annual increases in Vehicle Miles Travelled (VMT). This is due to the fleet turnover, with newer, lower emitting vehicles replacing older, higher emitting ones. The introduction of Reformulated Gasoline Phase II (RFGII) in 1996 and the introduction of Enhanced Inspection and Maintenance program (Smog Check II) in the Bay Area, which started in October 2004, have resulted in further reductions."

At pg. 14, NOx strategies and improvements for the Bay Area are identified:

"Reductions in NOx emissions prior to 2011 were due in part to Air District regulations on combustion sources including refineries and power plants. Tighter emission controls on motor vehicles also significantly reduce NOx emissions. Smog Check II, introduced in the Bay Area in 2004, played an important role in achieving NOx reductions, as it requires that vehicles are tested and that failing vehicles are repaired. NOx emissions from on-road motor vehicles will continue to decline due to fleet turnover. CARB's aggressive regulations on on-road heavy duty diesel trucks, buses, and construction equipment will continue to reduce NOx and diesel particulate matter. "

This excerpt reinforces the BAAQMD's historical and largely exclusive focus on 1) imposing NOx reductions on the same stationary sources that represent only a very small margin of the air basin's NOx inventory; and 2) continuing the historical reliance on the State and federal government for Smog-Check, cleaner vehicle tailpipe standards, and other "aggressive regulations" to reduce both NOx and PM engine emissions.

BAAQMD's CEQA thresholds, adopted for use by OCII on the Events Center project EIR, have been and remain under-representative quantitatively based on non-scientifically derived NSR thresholds. NSR-derived CEQA thresholds will fail to adequately counterbalance land use growth-related increases in new, indirect source (vehicle) emissions of the Events Center, along with emissions from other land use projects in the Bay Area, subject to CEQA review, and those land use projects will generate thousands of tons of emissions on an annual basis no differently—aside from being greatly under-evaluated by use of the District's lax CEQA thresholds-- than those highly regulated local stationary sources operating under routine, severe restrictions by the air district.

In conclusion, use of the BAAQMD's CEQA thresholds to evaluate the Event Center project's impact significance for both onroad and offroad emissions have been based on under-representative NSR daily emission offset levels, and those levels, applied to evaluate the Events Center's air impacts, will understate their significance to local and regional air quality. This is no more appropriate than the Lead Agency's implication that the region's 17% improvement in regional ozone over a 20-year period is attributable to those under-representative CEQA thresholds.

**Footnotes:**

- <sup>1</sup> A "vehicle" is typically characterized by its being self-propelled, and includes both onroad and offroad applications. See Table 4, pg. 6 for distribution of BAAQMD's annual average emissions by major source categories; "Bay Area Emissions Inventory Summary Report: Criteria Air Pollutants Base Year 2011" at [http://baaqmd.gov/~media/Files/Planning%20and%20Research/Emission%20Inventory/BY2011\\_CAPSummary.ashx?la=en](http://baaqmd.gov/~media/Files/Planning%20and%20Research/Emission%20Inventory/BY2011_CAPSummary.ashx?la=en)
- <sup>2</sup> US EPA; Emission Facts The History of Reducing Tailpipe Standards. See: [www3.epa.gov/otaq/consumer/milestones.htm+&cd=1&hl=en&ct=clnk&gl=us](http://www3.epa.gov/otaq/consumer/milestones.htm+&cd=1&hl=en&ct=clnk&gl=us)
- <sup>3</sup> See BAAQMD CEQA GUIDELINES Assessing the Air Quality Impacts of Projects and Plans; 1999; pg 16.

*(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-12])*



#### Response to Late Comment AQ-4: Air Quality Significance Thresholds

The commenter states that because the BAAQMD thresholds were derived to address stationary sources that they are inappropriate for use as thresholds for land use development projects. The RTC document cite California Air Resources Board data to demonstrate that measures taken locally by BAAQMD are effective in reducing emissions and that a large portion of these reductions has been achieved by curtailing emissions from stationary sources. The NSR thresholds are therefore enabling the BAAQMD to capture a sufficient percentage of projects to effectively reduce ozone precursors within the basin. Data from the CARB's Almanac for Emissions and Air Quality<sup>8</sup> (year 2013) can further be used to demonstrate that not only have emissions inclusive of stationary and vehicular sources in the state declined but that, if taken alone, stationary source emissions statewide have declined by more than 50 percent from 2000 to 2015. Thus, even with an increase in stationary sources over the intervening 15 years, statewide emissions of ozone precursors from these sources have decreased. Use of NSR thresholds have resulted in emissions controls on significant stationary source contributors and thus are partly responsible for the decline in ozone precursors. The fact that land use development projects include more than just stationary sources does not preclude the use of an NSR-based threshold from being an effective tool to determine significance and require mitigation.

Further, the use of the BAAQMD's mass emission significance thresholds is ubiquitous in environmental assessment under CEQA throughout the San Francisco Bay Area Air Basin. The commenter's assertion that these thresholds are inappropriate for use in assessing significance of land use development projects is unsupported and would render every CEQA document in the region that quantitatively address ozone precursor emissions inadequate.

Finally, case law confirms that a lead agency has discretion to rely on the guidance provided by local air districts concerning the appropriate significance thresholds to use in CEQA analysis of proposed projects. (See, e.g., *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 932-934.)

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#### Issues Raised by Late Commenters on Air Quality Traffic Assumptions

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-13

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<sup>8</sup> CARB, California Almanac of Emissions and Air Quality -2013 Edition, Chapter 4 Regional Trends and Forecasts, Table 3-3.



### III. NBA-Game Vehicle Trips Associated with Oracle Arena Appear To Have Not Been Relinquished For Use by SF Warriors at Proposed Events Center

At FEIR 13.13-45, the Lead Agency has again repeated its contention that basketball-related games at the Oracle Arena in Oakland represent existing baseline vehicle emissions which, already existing, are transferable to the new SF arena. The FEIR's air emissions estimates rely on this baseline argument to avoid disclosing greater emission offsets that would otherwise be necessary to reduce the project's emissions to less than significant levels.

"These trips occur now so they are part of the existing baseline condition. It is reasonable to assume that the Oracle Arena will not be host to another NBA franchise in the Bay Area, so no new vehicle emissions associated with NBA basketball games would be expected in the region. This assumption is supported by substantial evidence and vetted by OCII. The assumption was also accepted by the California Air Resources Board when it approved the project sponsor's analysis of greenhouse gas emissions pursuant to its AB 900 application."...

"The Specific Plan (Oakland Coliseum Area Specific Plan Final EIR) is based on Oakland's assumption that all three current City of Oakland sports franchises (the Raiders, the A's and the Warriors) will make independent business decisions to remain in Oakland, and at the Coliseum District, and that each of the sports franchises will have new, separate venues for their games. Consequently, the assumptions within the Coliseum Area Plan Final EIR are entirely different from those of the proposed project.

However, as we noted in our previous comments Oakland has clearly identified at various locations in its August 2014 Coliseum Area Specific Plan DEIR that it has assumed that its baseline involves retention of the Warriors, and hence EIR emissions estimates are predicated on that fact.

The issue here is not whether the Warriors intend to move to the new SF Events Center and that some existing vehicle trips will move with them, but whether the game-related vehicle trips the Events Center EIR has claimed in its emissions calculations and for mitigation value are transferable from the Oracle Arena. If the modernizing and expansion of the area, inclusive of the Oracle Arena, intends to keep those trips on their books (and the Coliseum SPA DEIR indicates they will), they cannot then also be claimed for application to the SF Event Center project (as they have been). We continue to contend that they cannot be applied in the Events Center project because they have not been relinquished by the existing facility that is anticipated within the Coliseum redevelopment process, and there is no evidence (a letter from the City of Oakland, a clear statement in the Coliseum SPA DEIR that they have not continued to count those NBA-franchise related vehicle trips, etc.) provided in the SF Events Center EIR to that effect. The Coliseum SPA DEIR anticipates modernizing the existing Oracle Arena with no substantive change in location, and retention of the NBA franchise or recruitment of a non-NBA sports team. At Coliseum SPA DEIR pg. 4.4-59 baseline emissions were identified for 2013. Further, the Oakland DEIR was released in July 2014, a year prior to issuance of the SF Events Center DEIR, and at least four months prior to the release of the Event Center NOP. Coliseum SPA DEIR pg. 4.4-59:

"CalEEModTM 2013.2.2 was used to evaluate (...) criteria pollutant emissions for (...) existing criteria pollutant emissions from the Coliseum District area ("Existing No Project", or "2013 Baseline")."

Showing in the screenshot below, Coliseum SPA DEIR pg. 4.2-61, Table 4.2-7 provides baseline operational emissions for the Coliseum project, inclusive of existing Warriors game trips, for the 2013 baseline year, and then again for the 2035 baseline year. According to the DEIR:

"Table 4.2-7 shows estimated average daily and annual maximum criteria emissions under current conditions (2013 Baseline), as well as the emissions projected from current land uses at the Coliseum District as they would occur in 2035 (2035 Baseline). These projected 2035 baseline emissions are based on a continuation of existing land uses, **vehicle trips, and VMTs**. (Emphasis added) Over time, regulatory changes at the state level are projected to go into effect, resulting in improvements primarily to vehicle exhaust emissions."



Chapter 4.2 Air Quality

**Table 4.2-7 Operational Criteria Pollutant Emissions – Change in Coliseum District Baseline**

<b>Emissions (tons/year)</b>			
<b>Pollutant</b>	<b>2013 Baseline</b>	<b>2035 Baseline</b>	<b>Baseline Increment</b>
ROG	26	21	-5
NO <sub>x</sub>	30	11	-19
PM <sub>10</sub> Total	9	9	0
PM <sub>2.5</sub> Total	3	3	0
<b>Emissions (pounds/day)</b>			
<b>Pollutant</b>	<b>2013 Baseline</b>	<b>2035 Baseline</b>	<b>Baseline Increment</b>
ROG	144	115	-29
NO <sub>x</sub>	165	62	-103
PM <sub>10</sub> Total	52	50	-2
PM <sub>2.5</sub> Total	17	15	-2

**Abbreviations:**  
CalEEMod™ = California Emissions Estimator Model  
CEQA = California Environmental Quality Act

Immediately after, the DEIR states:

“Table 4.2-8 shows average daily and maximum annual projected 2035 criteria air pollutant emissions with the Coliseum District project, compared with 2013 Baseline emissions levels, and the incremental increase of emissions. The table shows that for each criteria pollutant, in the year 2035, the development will emit more pollutants than the City’s threshold.”

A screenshot of Table 4.3-8 is provided:

**Table 4.2-8 Coliseum District Operational Criteria Pollutant Emissions**

<b>Emissions (tons/year)</b>					
<b>Pollutant</b>	<b>Existing (2013) Baseline</b>	<b>Future (2035) Coliseum District</b>	<b>Project Increment</b>	<b>Threshold</b>	<b>Greater than Threshold?</b>
ROG	26	99	73	10	YES
NO <sub>x</sub>	30	51	21	10	YES
PM <sub>10</sub> Total	9	44	35	15	YES
PM <sub>2.5</sub> Total	3	13	10	10	YES
<b>Emissions (pounds/day)</b>					
<b>Pollutant</b>	<b>2013 Baseline</b>	<b>2035 Coliseum District</b>	<b>Project Increment</b>	<b>Threshold</b>	<b>Greater than Threshold?</b>
ROG	144	544	400	54	YES
NO <sub>x</sub>	165	281	116	54	YES
PM <sub>10</sub> Total	52	243	191	82	YES
PM <sub>2.5</sub> Total	17	73	57	54	YES

**Abbreviations:**  
CalEEMod = California Emissions Estimator Model  
CEQA = California Environmental Quality Act  
NO<sub>x</sub> = nitrogen oxides



The Coliseum SPA DEIR has made it abundantly clear in written and graphical form that it has assumed retention of the Warriors at their present Oakland area site or recruitment of a replacement non-NBA team, counted those related vehicle trips and their attendant air pollution impacts, and it has provided baseline emissions data for 2013 for estimation of emissions for the proposed Coliseum development, with Arena renewal, that reflects that retention. In Table 4.2-8 immediately above, the "Project Increment" column represents the difference between the Warrior's emission baseline values, inclusive of game-related trips that have been ongoing at the facility for decades, and the 2035 future-case projection. Nothing has been provided to show that the Oakland EIR has relinquished its historical NBA-franchise trips, and thus those "existing" trips and their emissions must not then be applied as, in effect, a credit in the SF EIR, since an automatic under-representation and under-mitigation of the Event Center's total, significant operational emissions (largely caused by vehicle trip emissions) will then occur. While this helps the Event Center Applicant since fewer emission offsets will need to be acquired to bring the project's significant emissions down to sub-threshold levels, it is not appropriate under CEQA.

No information is found in Table footnotes or surrounding to reflect that trips factored into the 2013 baseline were somehow relieved of the increment of historical Warrior game-related trips that must be carefully accounted for in the CEQA review process for both projects, nor has the SF Events Center EIR ever provided actual evidence that the Oakland Coliseum project has relinquished or abandoned those baseline Warrior trips, already studied and accounted for under CEQA, to the Oracle Arena as it is redeveloped and expanded. Unless the SF Events Arena project can provide factual information from Oakland Coliseum SPA EIR administrators that shows that trip emissions associated with the long-established NBA-style games at the Oracle Arena will not continue with the Warriors or any other similar sports team, and that the Coliseum project has abandoned any intent to have a replacement sports team for the purposes of estimating the emissions of the redeveloped, new arena proposed for the Coliseum Specific Plan Area, the SF Events Center cannot claim or use any measure of them for their emissions estimates or for mitigation offsetting.

Finally, CARB's AB 900 GHG streamlined analysis process for large (>\$100 million) projects is not part of the CEQA process used to estimate and evaluate the proposed SF Arena's environmental impacts, does not afford the public effective review and input, nor is it subject to administrative review. Without evidence provided in the SF Events Center EIR of a potential for double-claimed Warriors trips, CARB likely erred if they assumed that Oracle Arena NBA trip emissions were wholly fungible with and transferable to the SF EIR. Before the SF Events Center can legitimately claim any benefit from Oracle's NBA-related vehicle trips for reducing its new, estimated vehicle emissions under CEQA, they must have been "taken off the books" in Oakland in order to prevent what would in effect be a double-counting. As we noted previously, those Oracle-based NBA trips cannot be transferred to San Francisco's proposed Events Center if they have been retained "on the books" in Oakland. Nothing in the FEIR proves otherwise. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-13]*)

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## Response to Late Comment AQ-5: Air Quality Traffic Assumptions

### *Assumptions for SEIR Air Quality Analysis*

This comment concerns the baseline selected for the air quality analysis. The trips associated with the Golden State Warriors games at the Oracle Arena are considered in the analysis of the localized impact of the project. There is currently only one NBA franchise in the Bay Area. It is not considered reasonably foreseeable that another NBA franchise will relocate to the Bay Area, as neither the NBA nor a specific team has announced such plans. Accordingly, the trips associated with Golden State Warrior games would follow the team when they move to the proposed event center in the Mission Bay area of San Francisco. The ozone precursors



concerned, ROG and NO<sub>x</sub>, are regional pollutants in that they affect the entire region and not just the city in which the arena is located because they form ozone in the atmosphere in the presence of sunlight. Only the destination of these existing trips would change under the proposed project; there would not be a duplication of game-day trips between Oakland and San Francisco. As such, the Oracle Arena trips for Golden State Warriors games only are reasonably assumed to occur regardless of the team's move to San Francisco. The local impacts of the new trips in San Francisco are evaluated in the local health risks and hazards assessment of the SEIR. The SEIR analysis assumed that all concerts and other non-basketball events occurring at the proposed arena were "new" emissions and that these activities would not be transferred from Oracle arena, although it is probable that a portion of them would be.

The commenter states that offsets will bring the project's significant emissions down to sub-threshold levels. While this is true, Impact AQ-2 is still found to be significant and unavoidable in the Final SEIR. Even with implementation of identified mitigation measures, the SEIR notes that the air emissions from operation of the project are significant and unavoidable. Mitigation Measure M-AQ-2b is designed to reduce the appropriate quantity of NO<sub>x</sub> and ROG given the regional nature of the pollutants.

#### ***Assumptions for AB 900 Greenhouse Gases Analysis***

The commenter is correct in stating that the AB 900 certification "is not part of the CEQA process used to estimate and evaluate the proposed SF Arena's environmental impacts." However, the AB 900 process did afford public review and input, through a public comment period from March 2, 2015, to April 1, 2015, prior to the Governor's Certification on April 30, 2015. As discussed in Response AB-2 in Chapter 13, Section 13.4 of the RTC document, the AB 900 administrative record is complete, sufficient, and publically available (hosted at <http://gsweventcenter.com/>). OCII was aware of the application as acknowledged in a letter included as Exhibit E to the AB900 application. OCII was given the opportunity to perform administrative review of the application.

The greenhouse gases emissions analysis conducted for the AB 900 process was reviewed and agreed to by CARB. The Governor certified the project as an environmental leadership project. That decision is final. The significance determination for criteria air pollutant emissions in the SEIR is based on appropriate project-generated sources(see Draft SEIR, Section 5.4), as required under CEQA.

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#### **Issues Raised by Late Commenters on Air Quality Specialist**

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-15

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**V. Use of a Qualified 3rd Party Specialist or Engineer Is Needed to Ensure Actual Mitigation-Required Construction Eqpt Emission Reductions**

At FEIR pg. 13.13-55 the Lead Agency contends that a potential conflict of interest posed by the Project Sponsor's "review role in the mitigation measure" is negated by their requirement that the Construction Emissions Control Plan be reviewed or approved by OCII or its "designated representative". OCII argues that "air quality specialists" at SF Planning are capable of verifying Event Center construction fleets for compliance with the project's mitigation measures, pointing to unspecified experience with, for example, a harbor hoteling project, and "familiarity with modeling programs" used for air quality analysis. We note that the Lead Agency has used the term "air quality specialists" and not "Air Quality Specialists", indicating that their job descriptions likely reflect non-technical Planner skillsets rather than those required for an air quality agency engineering or specialist position involved with evaluating and verifying VDECs and CARB certifications; evaluating and verifying NOx reduction claims emissions for offroad construction equipment; evaluating and verifying engine Tiers on all pieces of offroad construction equipment; and ensuring that each and every piece of onsite equipment is verified and tracked regularly for hours of operation at the project site. Hands-on experience with construction vehicles of all types and vintages, emission control technologies, CARB regulations and aftermarket retrofit certification requirements, possessing CARB certification for performing visible emissions evaluations for construction equipment opacity violations, and other technical, hands-on, construction-related skillsets will be required to ensure that every piece of offroad construction equipment used at the Events Center project meets the highly-specific and technical requirements of M-AQ-1 for every day such equipment is used at the jobsite; it is highly improbable that a "planner" would possess such skillsets.

Further, "familiarity" can indicate little more than a vague awareness and thus it connotes little substance. As we argued in our comments previously, the Lead Agency should rely for onsite verification of the project's mitigation measures, in detail, on BAAQMD personnel or on an independent, trained, professional environmental specialist or engineer with expertise in air emissions, construction vehicles, and emissions control technologies and strategies used to control and reduce construction equipment emissions. The environmental compliance professional should be onsite daily, with weekly assessments in reports delivered to OCII. Based on a lack of experience with construction equipment, its availability, and with practicable construction mitigation, it is apparent that OCII has constructed M-AQ-1 in ways that are fundamentally flawed and the measure is unenforceable. Accordingly, OCII's choice of SF Planning personnel, or their own, to ensure compliance and enforcement of the project's air quality mitigations is likely to be similarly flawed. If OCII refuses to require use of highly qualified air pollution control personnel to ensure compliance and enforcement of M-AQ-1 and other air quality mitigations, we believe the MMRP must be amended to provide for regular (bi-weekly or monthly) independent audits provided by BAAQMD or a private, professional air quality consultant to verify equipment lists and details with actual vehicles on the project site; the auditor would have specialized training in visible emissions, air quality regulations, vehicle emissions and control technologies used in construction equipment, etc. Without such third-party verification the project will likely not produce the required emission reductions that have been claimed in the EIR in order to reduce the project's impact significance levels. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-15]*)

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**Response to Late Comment AQ-6: Air Quality Specialist (see also Response to Late Comment AQ-2)**

As stated in the RTC document, SF Planning Department has an air quality group with technical expertise in CEQA-related air quality technical analysis, including the ability to assess the availability and quality of existing data; evaluation of air quality modeling parameters and potential air quality impacts; and development, evaluation, and monitoring



of air quality mitigation measures. Air quality specialists within the group provide an analysis of a project's potential to emit criteria air pollutants, toxic air contaminants, and greenhouse gases, as well as the potential for pollutants to adversely affect sensitive receptors. Air quality specialists are familiar with modeling programs including, but not limited to: CalEEMod, URBEMIS, EMFAC, AERMOD, and CAL3QHC Line Source Dispersion Model and work regularly with the Bay Area Air Quality Management District (BAAQMD) staff and staff with air quality analysis expertise at the Department of Public Health (DPH) on individual projects and in the creation of technical support documentation for the continued development of a Community Risk Reduction Program for the City. OCII believes that the air quality staff at the SF Planning Department has the requisite expertise for its designated oversight role in the implementation of air quality mitigation measures.

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### Issues Raised by Late Commenters on Renewable Diesel as Mitigation

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-16

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#### **VI. Renewable Diesel Should Have Been Made Mandatory in Construction and Operational Mitigation Measures**

No substantive explanation is provided in the FEIR for why the Lead Agency has failed to require use of renewable diesel to mitigate offroad construction equipment emissions and for use in emergency standby generators. As we pointed out in our previous comments renewable diesel is readily available, and it provides criteria and carbon emission reduction benefits that cannot be matched by the biodiesel mentioned in the EIR, it routinely costs less than biodiesel, and in many cases it costs less or is on par with costs for regular diesel.

At FEIR 13.13-61 the Lead Agency has applied conditions to the use of renewable diesel in emergency standby gensets that reflects its inexperience and reluctance to require use of available technology that has demonstrated clear cost-effective emission benefits within the region. As we pointed out in comments on the SDEIR, renewable diesel is available at multiple locations throughout central and northern CA at costs on par with conventional diesel (and routinely less than the less-effective biodiesel mentioned by the Lead Agency in the Events Center EIR), its substantial carbon benefits are unmatched against regular diesel or biodiesel, and it produces positive reductions compared with regular diesel in particulate (-34%), NOx (-18%)<sup>7</sup>, and other pollutant reductions needed by the Events Center project. Use of renewable diesel in existing or new diesels requires no retrofitting and either does not affect performance or improves it incrementally. The Lead Agency's concern that renewable diesel's NOx benefit may be lost as a result of 12 miles of transport (see FEIR pg. 13.13-57) to the Event Center borders on the ludicrous, since traditional diesel (particularly from imported crude) is transported a greater distance, and because the Lead Agency has failed altogether to verify traditional diesel's transport distance to the Events Center for comparison purposes.

Renewable diesel's primary benefit is its extremely low carbon intensity; the Propel renewable diesel product we discussed in previous comments has zero land use or other indirect carbon intensity effect, and its (direct) carbon intensity (CI) is 68% less than traditional diesel's CI value; why, then, has OCII not embraced renewable diesel's carbon benefits that, importantly, will help offset the project's actual GHG emissions and criteria pollutant emissions? Renewable diesel is readily fungible with traditional diesel for storage and has better product life characteristics. Its use in construction



and onroad diesels requires no adjustments or adaptations, it is locally available, and it is functionally transparent with traditional diesel for use in diesel engines.

While the Lead Agency has refused to embrace renewable diesel for the Events Center project, its own parent agency has not. San Francisco's mayor publicly announced that the City-and-County had committed to 100% renewable diesel use last July, with full transition by the end of 20158. The City of Walnut Creek committed to 100% use of renewable diesel previously, and relies on it exclusively now. 9 If the City of Walnut Creek and the City and County of San Francisco, with their experts in diesel technology and fleet management, and with ready access to BAAQMD air quality expertise, have embraced the multiple air and energy benefits of renewable diesel, what explains the Lead Agency's intransigent failure (FEIR pg. 13.13-57) to require its use in the Event Center's air quality mitigations? CEQA requires the use of all reasonable, feasible mitigations for the reduction of the project's significant air quality impacts; the Lead Agency's tepid response to renewable diesel is, against the evidence of its considerable benefits that has been readily available since prior to issuance of the project's SDEIR, inadequate to ensure its use on the project.

Further, if the "OCII or the City's air quality specialists" lack the expertise necessary to have already reviewed and selected renewable diesel as they should have (based on the City's adoption of it prior to issuance of the Events Center FEIR), and for what appear to be fatal flaws built into M-AQ-1 (as pointed out elsewhere in this comment letter), we again propose the project's use of a highly qualified, independent and unconflicted, professional environmental consultant, or BAAQMD specialist or engineer, with relevant expertise to ensure use of and compliance with the Event Center's air quality mitigations and to ensure the use of all reasonable, feasible options (including renewable diesel) for every day of the project's construction process.

**Footnote:**

<sup>7</sup> "Low Carbon Fuel Statistics", pg 9;  
<http://propelfuels.com/assets/hpr-launch/docs/california-low-carbon-fuel-consumer.pdf>

(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-16])

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## Response to Late Comment AQ-7: Renewable Diesel as Mitigation

The comment states that renewable diesel should be required for use in operation of the proposed stand-by generators as well as by construction equipment. Page 14-116 of the RTC document specifically identifies use of renewable diesel for generator operations as indicated below in Mitigation Measure M-AQ-2a, which the RTC document revised as shown:

### Mitigation Measure M-AQ-2a: Reduce Operational Emissions

The project sponsor shall implement the following measures ~~as feasible~~:

- Provision of outlets for electrically powered landscape equipment
- Use of renewable diesel to power back-up diesel generators if it can be demonstrated to OCII or the City's air quality specialists that it is compatible with tiered engines and that emissions of ROG and NOx from transport of fuel to the project site will not offset its NOx reduction potential.

Page 13.13-57 of the RTC document revised element 4 of Mitigation Measure M-AQ-1: Construction Emissions Minimization to require use of renewable diesel:



4. The Plan shall include estimates of the construction timeline by phase with a description of each piece of off-road equipment required for every construction phase. Off-road equipment descriptions and information may include, but are not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. For VDECS installed: technology type, serial number, make, model, manufacturer, ARB verification number level, and installation date and hour meter reading on installation date. For off-road equipment using alternative fuels, reporting shall indicate the type of alternative fuel being used. Renewable diesel shall be considered as an alternative fuel if it can be demonstrated to OCII or the City's air quality specialists that it is compatible with tiered engines and that emissions of ROG and NOx from transport of fuel to the project site will not offset its NOx reduction potential. The plan shall also include estimates of ROG and NOx emissions.

The City implemented the use of renewable diesel for its citywide fleet on the basis of its lower emission potential of diesel particulate matter and not for the purposes of reduction of ozone precursors. As a consequence, the verification of NOx reduction potential is required by the mitigation as locally-sourced diesel may be acquired with less transport emissions.

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#### Issues Raised by Late Commenters on Air Quality Impacts of Project Refinements and New Variant

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-5

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#### **D. Changes to the Project Since Publication of the DSEIR Require Recirculation of a Revised DSEIR Due to New and More Severe Significant Impacts.**

Under CEQA, if the project changes after publication of the Draft EIR, and these changes create a new significant impact not identified in the Draft EIR, or a substantial increase in severity of a significant impact that was identified in the Draft EIR, the lead agency must recirculate the draft EIR for public comment. (CEQA section 21092.1.)

Here, the RTC describes a number of "construction refinements", including using dewatering generators, using a soil treatment pug mill, and removing rapid impact compaction from the construction plan. With respect to the air quality impacts of these "construction refinements" the RTC states:

The addition of the construction refinements would not substantially increase (approximately 2 percent for ROG and 4 percent for NOx) the average daily construction-related emissions disclosed in the Draft SEIR. This would not result in a substantial increase in the severity of the previously identified significant and unavoidable impact, and the same mitigation measures would apply requiring the project sponsor to minimize construction emissions.

(RTC, p 12-22.)



The RTC also describes a new variant, the Muni UCSF/Mission Bay Station Variant, and discloses that:

The Muni UCSF/Mission Bay Station Platform Variant would not substantially increase (approximately 2 percent for ROG and 5 percent for NOx) the average daily emissions disclosed in the Draft SEIR for the proposed project (see Table 5.4-7, page 5.4-31). Furthermore, Mitigation Measure M-AQ-1 (Construction Emissions Minimization) would also apply to the variant. While the estimated construction emissions under the variant shown in Table 12-2 are slightly higher than those identified for the proposed project in the Draft SEIR, this impact is not substantially more severe than the previously identified significant and unavoidable impact.

(RTC, p 12-22.)

There are several problems with these assertions. First, the RTC does explain whether construction refinement caused increases of 2 and 4 percent for ROG and NOx, respectively, are included within or additive to the Platform Variant caused increases of 2 and 5 percent for ROG and NOx. Without this information, the public does not know what additional quantum of ozone pollution the RTC deems insubstantial.

Assuming for the moment that the construction refinement caused increases are included within or the Platform Variant caused increases, the RTC offers no rationale why the 2 and 5 percent increases are not considered a “substantial” increase in the severity of the previously identified significant effect that Project construction will have on ozone precursor pollution. The RTC authors apparently believe these number speak for themselves. They do not. In fact, reliance on these appears to reflect a silent assumption that these increases above the previously identified quantities of emissions for these pollutants is “de minimis.” It must be remembered, however, that these increases are not above a previously identified less-than-significant quantity of emissions; the previously identified quantities were significant!

The RTC thus commits the exact errors of law rejected by the Court of Appeal in *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98 (“CBE”), i.e., using a “de minimis” rationale or any type of simple numerical ratio of the incremental impact compared to the pre-existing impact. “[T]he relevant question... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether ‘any additional amount’ of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant.” (Id. At p. 120; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-721.)

These increases should be considered substantial and the SEIR recirculated for public comment. Instead, the October 23, 2015, notice of publication of the Response to Comments informed the public they would have no opportunity to comment on the environmental effects of these changes in the Project. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-5]*)

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### Response to Late Comment AQ-8: Air Quality Impacts of Project Refinements and New Variant

The commenter states that increased construction emissions resulting from construction refinements and a new variant identified in the RTC document are substantial and should result in recirculation of a revised SEIR. Chapter 12 of the RTC document discusses the relative increases in emissions associated with operation of dewatering generators, operation of a pug mill to treat soil on-site and removal of previously assumed rapid impact compaction activities. As stated in Chapter 12, the increase in NOx emissions from construction refinements would be 5 percent over the significant construction-related NOx emissions identified in the SEIR of 144 pounds per day, or 151 pounds per day. The



144 pounds per day of NOx emission identified in the SEIR is 90 pounds per day (12 tons per year) over the significance threshold of 54 pounds per day. A 5 percent increase of NOx emissions from 144 pounds per day to 151 pounds per day would result in emission of 97 pounds per day (13 tons per year) over the threshold. The project variant would also result in an increase in construction emissions beyond what was estimated with the construction refinements above. As indicated in Table 12-3 of the RTC document, NOx emissions under this variant (and including project construction refinements discussed above) would result in 157 pounds per day, which would be 103 pounds per day (14 tons per year) over the threshold.

These marginal increases in temporary construction emissions over what was identified in the Draft SEIR are not considered a substantial increase. This judgment is based on the significance threshold of 54 pounds per day which, as stated in page 5.4-25 of the SEIR, represents a significant increase in emissions under CEQA for NOx emissions. Consequently, for project revisions to result in a substantial increase in emissions over that identified in the SEIR, they would need to increase emissions by 54 pounds per day over the 144 pounds per day, or 198 pounds per day. Because project emissions with consideration of revisions and the project variant would result in emissions of 157 pounds per day or less, there contribution is not considered a substantial increase.

Mitigation Measure M-AQ-2b requires the project sponsor to offset operational and construction-related emissions. Because operational emissions are presently calculated to exceed construction-related emissions, operational emissions form the basis of the requirement to provide 17 tons per year of ozone precursor offsets identified in the SEIR. Increased construction-related emissions with the proposed construction refinements or the MUNI Variant would still be less than the operational emissions and would be offset through implementation of Mitigation Measure M-AQ-2b. That is, the amount of offsets provided would be greater than the project's construction-related NOx emissions; for this reason, in providing such offsets, the project sponsor would more than offset the project's construction emissions. Furthermore, Mitigation Measure M-AQ-2b would require the project sponsor to calculate the amount of emissions offset required from construction based on the reporting requirements of Mitigation Measure M-AQ-1 and the degree of compliance with off-road equipment types that were determined to be commercially available. If the calculated construction emissions of ozone precursors requires offsets in excess of 17.0 tons per year, then the applicant must provide the additional offset amount commensurate with the calculated ozone precursor emissions exceeding 17.0 tons per year. Regardless, the significant and unavoidable determination of the SEIR related to construction-related emissions would not change with the construction refinements or the MUNI Variant.

Recirculation of a Draft EIR is required only when "significant new information" is added to the EIR "in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect ... that the project's proponents have declined to implement." (CEQA Guidelines, § 15088.5, subd. (a); *Laurel Heights Improvement Assn. v. Regents of University of*



*California* (1993) 6 Cal.4th 1112, 1129-1130 (*Laurel Heights II*); *San Francisco Baykeeper, Inc. v. California State Lands Comm'n* (2015) \_\_\_ Cal.App.4th \_\_\_ (slip op. at pp. 17-19) (A142449).) As the comment notes, recirculation may be required when the Final EIR reveals a new significant impact not identified in the Draft EIR or a substantial increase in the severity of a significant impact that was identified in the Draft EIR. (Guidelines, § 15088.5, subds. (a)(1), (a)(2).)

“An agency’s determination not to recirculate an EIR is given substantial deference and is presumed to be correct. A party challenging the determination bears the burden of showing that substantial evidence does not support the agency’s decision not to recirculate.” (*Beverly Hills Unified School District v. Los Angeles County Metropolitan Transportation Auth.* (2015) 241 Cal.App.4th 627, 661.) As the Supreme Court has emphasized, recirculation is the exception, not the rule. (*Laurel Heights II, supra*, 6 Cal.4th at p. 1132.)

The comment suggests changes to the proposed project triggered the need for recirculation. That is not correct. “CEQA allows, if not encourages, public agencies to revise projects in light of new information revealed during the CEQA process.” (*Citizens for a Sustainable Treasure Island, supra*, 227 Cal.App.4th at p. 1062.) “The CEQA reporting process is not designed to freeze the ultimate proposal in the precise mold of the initial project; indeed, new and unforeseen insights may emerge during investigation, evoking revision of the original proposal. [Citation.]” (*Ibid.*, quoting *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 199 (*County of Inyo*).) As noted above, project changes do not trigger recirculation unless they would result in a new significant environmental impact or a substantial increase in an environmental impact and failure to recirculate would deprive the public of a meaningful opportunity to comment upon a substantial adverse environmental effect. (CEQA Guidelines, § 15088.5, subds. (a)(1), (a)(2).)

The comment states that changes in the proposed project will result in new and substantially more severe significant impacts. The comment does not describe any new impacts revealed in the RTC document that were not previously disclosed in the Draft SEIR. Instead, the comment cites to air quality impacts that are described in the Draft SEIR, and states that the increase in ROG and NOx emissions (2 and 5 percent, respectively) from the construction refinements and Muni UCSF/Mission Bay Station Variant identified in the RTC document constitutes a substantial increase in the severity of impacts requiring recirculation. As described above, these slight increases are not considered substantially more severe than the impacts described in the Draft SEIR. Further, the identified offset mitigation measure would more than offset the construction-related emissions resulting from the construction refinements and MUNI UCSF/Mission Bay Station Variant.

Relying on *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, and *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-721, the comment seems to suggest that *any* increase in a previously identified significant impact triggers recirculation.



That suggestion is incorrect. First, the two cases cited in the comment address whether a project's contribution to a cumulatively significant impact should be considered cumulatively considerable. They do not address the standards for recirculation, and therefore, are not applicable. In any event, both of those cases note that just because a project contributes to a cumulatively significant impact, it does not mean that the project's contribution is cumulatively considerable. (See *Communities for a Better Environment v. California Resources Agency*, *supra*, 103 Cal.App.4th at p. 128 [the "one [additional] molecule rule" is not the law."].) Instead, the lead agency has discretion to determine whether the project's incremental contribution to a significant cumulative impact is cumulatively considerable. (*Ibid.*) Similarly, for recirculation, an agency has discretion to determine whether an increase in the severity of an impact is "substantial." (See *Laurel Heights II*, *supra*, 6 Cal.4th at pp. 1120, 1133.)

Second the plain language of the CEQA Guidelines – and Supreme Court precedent – refutes the commenter's position. (See *Laurel Heights II*, *supra*, 6 Cal.4th at pp. 1129-1130.) Under the CEQA Guidelines, the standard for recirculation is not whether the Final EIR reveals *any* increase in a significant impact, but whether the Final EIR reveals "*a substantial increase*" in the severity of a significant impact. (CEQA Guidelines, § 15088.5, subds. (a)(2).)

Here, the RTC document properly concluded that the construction refinements and Muni Variant would not result in a substantial increase in air quality impacts, as described above. (see also RTC, pp. 12-21 to 12-22; 12-29 to 12-34.) Therefore, OCII's determination that recirculation is not required is supported by substantial evidence.

Further, a Draft EIR needs to be recirculated only if it is changed in a manner "that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project[.]" (CEQA Guidelines, § 15088.5, subd. (a).) There is no evidence that the information added to the SEIR deprived the public of a meaningful opportunity to comment on the project's significant impacts.

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## SECTION 11: RESPONSES TO LATE COMMENTS ON GREENHOUSE GASES EMISSIONS

The comments and corresponding responses in this section cover topics analyzed in SEIR Section 5.5, Greenhouse Gas Emissions, as augmented by RTC document. These include topics related to:

- Issue GHG-1: Approach to Analysis

### Issues Raised by Late Commenters on GHG Approach to Analysis

This response addresses all or part of the following comments, which are quoted below:

O-MBA16S6-3      O-MBA16S6-11

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### 3. Greenhouse Gas Emissions

The Alliance, among others, commented that the DSEIR's analysis of greenhouse gas ("GHG") emissions relied on the Project's defective AB 900 analysis to conclude that the Project had net zero GHG emissions. The FSEIR's response to these comments falls well below its duty of good faith.

Rather than candidly acknowledge that the DSEIR relied upon the analytical methodology followed in the AB 900 certification, which was fatally flawed, the City now attempts to distance itself from that analysis with a misleading claim that public commenters were somehow "confuse[d]" about the relationship between the AB 900 analysis and the DSEIR's analysis. (FSEIR, p. 13.14-5.) This response is nonsense. The public was not confused. To the contrary, public commenters correctly noted that the DSEIR expressly relied upon the AB 900 analysis to repeatedly represent that the Project would result in no net additional GHG emissions. To wit:

Construction activities would also result in temporary increases in GHG emissions. However, as described above under Regulatory Framework, the proposed project is a certified environmental leadership project under AB 900, and CARB has determined that the project would not result in any net additional GHG emissions due in part to the voluntary purchase of carbon credits by the project sponsor.

...

Thus, the Governor's certification of the proposed project as a leadership project further supports the determination that the proposed project would not have a significant impact on global climate change due to GHG emissions . . .

[A]nd because the proposed project would not result in any net additional GHG emissions, the project would not contribute to cumulative GHG emissions impacts.

(FSEIR, p. 14-123-125.)

Thus, there is no "confusion" by the public. And the City's attempt to eliminate this clear analysis in the FSEIR is evidence of the City's attempt to deceive the public regarding the Project's true GHG emissions. The DSEIR unquestionably asserted that the Project's GHG emissions had been quantified, and were a net zero. The assumptions and analysis supporting the DSEIR's conclusion is demonstrably flawed. As a result, the City has a legal duty under CEQA to publicly acknowledge and correct that flawed analysis. The City has not yet done this, which renders the FSEIR misleading and therefore defective as an informational document.

Rather than correct the DSEIR's defective GHG analysis, the City disingenuously sidesteps the issue by claiming that the FSEIR is now engaging in a purely "qualitative" analysis of GHG emissions rather than a "quantitative" analysis, as allowed by the CEQA Guidelines. (FSEIR, 13.14-5.) While it is true that the



referenced CEQA Guidelines permit an agency to use a qualitative analysis for GHG emissions in certain instances, this same guideline also advises, “A lead agency should make a good-faith effort, based on the extent possible on scientific and factual data.” (CEQA Guidelines, § 15064.4, subd. (a).) Further a lead agency “shall have discretion to determine, in the context of a particular project, whether to” “use a model or methodology to quantify” GHG emissions or to “rely on a qualitative analysis.” (CEQA Guidelines, § 15064.4, subd. (a)(1), (2).)

As explained in the attached letter by SCS Engineers ample information was available that allows the City to quantify the Project’s GHG emissions, consistent with regulatory guidance. (See Exhibit 1, SCS Engineers Memorandum dated November 2, 2015.) Thus, while the City might ordinarily have discretion to utilize a qualitative analysis, that discretion is constrained because extensive quantitative data has already been prepared for the Project that was readily available to the City. (*Berkeley Keep Jets Over the Bay Committee v. Board of Board Commissioners of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1371 (*Berkeley Keep Jets*) (agency abused discretion by not quantifying project’s air emissions).) As in *Berkeley Keep Jets*, the City’s failure to accurately disclose the Project’s GHG emissions, and its evasive responses to comments asking for an adequate analysis, fail to satisfy its duty under CEQA.

One of the major defects in the DSEIR’s GHG analysis was to exclude emissions associated with operation of the two office towers by claiming that this Project component is somehow “vested.” Though, the DSEIR never acknowledges that fact. (FSEIR, p. 13.4-11-12.) The FSEIR openly “acknowledge[s]” this critical defect.

The City’s response fails the good faith standard. First, it is telling that the City never even attempts to explain in the FSEIR how the office uses are “vested” in response to comment directly challenging that assumption. Second, even if the towers were somehow “vested,” which they most surely are not, it is well established that a CEQA document must analyze the “whole of the action.” (CEQA Guidelines, § 15378.) Unrealized hypothetical “permitted” or “vested” rights are not excluded from analysis of a project’s impacts. (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 320.) Third, excluding the towers’ GHG emissions establishes that the SEIR is premised on an inconsistent project description because the FSEIR analyzes the towers’ impacts in other resources areas. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 197.) As just one example, the new CEQA Guidelines Appendix F analysis expressly includes energy requirements from the two towers. (FSEIR, 13.23-10.) If the towers were “vested” and therefore excluded from analysis, the DSEIR also would not analyze the tower’s impacts in other resources areas either.

In conclusion, the FSEIR’s analysis of GHG is fundamentally flawed and fails as an informational document. The responses to comments are evasive and misleading, and fail to satisfy the City’s duty of good faith. Further, the information submitted by the Alliance constitutes substantial evidence of a fair argument that the Project will have a significant adverse effect on GHG emissions. (*Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-3]*)

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SCS does not agree with the conclusion that Project GHG emissions have been adequately addressed in the SEIR. The Responses to Comments dismiss criticism of the analysis performed for AB900 and indicate that the SEIR concludes that GHG emissions are not significant based on a qualitative analysis. SCS believes this level of analysis is inconsistent with existing guidance, that it fails to provide an accurate representation of the emissions from the project, and the inclusion of the AB900 analysis is misleading.

#### **EXISTING GHG GUIDANCE**

The SEIR is not consistent with guidance from regulatory agencies such as Bay Area Air Quality Management District (BAAQMD) or organizations such as the California Air Pollution Control Officers Association (CAPCOA).

The BAAQMD is the regulatory body for the San Francisco Air Basin (SFAB), which includes the Project location. The BAAQMD has issued CEQA guidelines in its *California Environmental Quality Act*



*Air Quality Guidelines* (BAAQMD, May 2012) document (BAAQMD Guidance) that include guidance on the assessment of GHG. While the BAAQMD is no longer recommending the thresholds in that document, the BAAQMD has indicated that other elements of that guidance can be utilized by planning agencies. That 2012 BAAQMD Guidance recommends the quantification of GHG emissions from projects for purposes of CEQA and states that “Emissions should be estimated in terms of carbon dioxide equivalent.”

CAPCOA is an organization of air pollution control officers from all local air districts in California. It is not a regulatory agency, but it has provided guidance for agencies throughout the state on air pollution, air toxics, and climate change. CAPCOA issued *CEQA and Climate Change* (CAPCOA, January 2008). That guidance states that:

“...the defensibility of a CEQA analysis rests on the following concerns:

- Whether the public agency has sufficiently analyzed the environmental consequences to enable decision makers to make an intelligent decision;
- Whether the conclusion of the public agency are supported by substantial evidence in the administrative record; and
- Whether the agency has made a good faith effort to disclose significant effects.”

The SEIR fails to meet these criteria because it has not sufficiently analyzed the environmental consequences, provided evidence of the conclusion, or made a good faith effort to disclose significant effects. As SCS noted in a memorandum dated July 20, 2015, the AB900 analysis of the Project is fundamentally flawed and inconsistent with California GHG policies. The SEIR does not sufficiently analyze GHG impacts from the Project other than by referencing the flawed AB900 analysis. Without quantification or more robust analysis of the actual GHG emissions from the Project, the public agency does not have sufficient information to make a decision, and the agency has not made a good faith effort to disclose significant effects.

Both the BAAQMD and CAPCOA have proposed quantitative GHG emission thresholds for purposes of determining significance for purposes of CEQA. While neither threshold is binding, the SEIR should compare the GHG emissions from the Project to the BAAQMD and CAPCOA thresholds to enable the public and policy makers to gauge the significance of GHG emissions.

#### **GHG QUANTIFICATION**

The SEIR has failed to quantify GHG emissions. If the Project is not relying on the AB900 analysis, as Response GHG-2 of the SEIR indicates, then no quantification of GHG emissions from the Project has been performed. Without quantification of the GHG emissions, the public agency cannot adequately determine whether how much GHG will be emitted by the Project relative to proposed significance thresholds, local GHG emissions, or other GHG sources.

As evidenced by the AB900 analysis, the tools to quantify GHG emissions exist. While the accounting methodology in the AB900 analysis is fundamentally flawed, the inventory methodology used in the analysis is generally appropriate for the quantification of GHG emissions from the Project. The BAAQMD Guidance lists several models that can be used by project proponents to quantify GHG emissions, including the Urban Emission Model (URBEMIS) and BAAQMD GHG Model (BGM). Voluntary registries such as The Climate Reserve (TCR) have also developed GHG quantification methodologies.

#### **MISLEADING USE OF AB900 ANALYSIS**

Response GHG-2 of the SEIR indicates that the SEIR is not relying on the AB900 analysis to demonstrate that GHG emissions are not significant, yet the SEIR makes repeated references to the AB900 analysis to support claims that GHG emissions are not significant. The AB900 analysis and the SEIR GHG analysis “have separate and distinct requirements and purposes,” as stated on page 13.14-5. Thus, the AB900 analysis cannot and should not be relied upon by the SEIR as quantification of the GHG emissions from the Project. Nor should it be used to support conclusions for CEQA purposes unless it can be demonstrated that it is consistent with CEQA requirements for a GHG analysis. The SEIR has not



provided evidence that the AB900 analysis can or should be used to support conclusions about the significance of GHG emissions from the Project. The AB900 analysis is fundamentally flawed for purposes of CEQA for reasons described in the July 20, 2015 Memorandum provided by SCS.

Impact C-GG-1 states that “As part of the AB900 application, the project sponsor has committed to purchase carbon credits from a qualified GHG emissions broker in an amount to offset all GHG emissions from project construction and operations.” This statement is misleading because it implies that the AB900 analysis is a sufficient analysis of the Project for CEQA purposes and that the Improvement Measure I-C-GG-1 provided consistent with the AB900 analysis is sufficient for CEQA purposes. The AB900 analysis uses inappropriate boundaries to analyze the GHG emissions and cannot be used for CEQA purposes. The SEIR appears to recognize the flaws of the AB900 analysis in suggesting it was not relied upon, but then it does just that – relies upon the AB900 analysis.

## CONCLUSIONS

The Response to Comments in the SEIR indicate that the AB900 analysis is not being relied upon for CEQA purposes to demonstrate that GHG emissions from the Project are less than significant. If the AB900 analysis is not being relied upon, the SEIR has provided no quantification of GHG emissions for CEQA purposes and has misleadingly referred to the AB900 analysis to support the conclusion that GHG emissions are not significant. For reasons stated in the July 20, 2015 memorandum from SCS, the AB900 analysis of GHG emissions from the Project is fundamentally flawed and cannot be relied upon for CEQA purposes of determining significance.

GHG analysis used to support the determination that the Project met the requirements of CEQA or AB900 is insufficient to demonstrate that the GHG emissions from the Project will be net zero or less than significant under CEQA for the following reasons:

- The SEIR fails to provide an appropriate quantification of GHG emissions for CEQA purposes. In the response to comments regarding the use of the AB900 analysis, the SEIR indicates that the AB900 analysis is not being used as the basis for evaluating GHG emissions from the Project.
- The AB900 analysis omits planned office towers from the GHG emission calculation, as specifically noted on SEIR Vol. 4, p.13.4-11. Because it omits these towers, the GHG quantification is inappropriate for use as a CEQA baseline.
- The GHG analysis makes unsupported assumptions about Oracle Arena, trip linkage, and energy use which artificially lower the expected GHG emissions from the Project and do not provide an accurate evaluation of the GHG emissions that can be expected to result from the Project.
- The GHG analysis does not require project monitoring and periodic GHG reporting to assure the accuracy of the projected emissions.
- The GHG offsets proposed as a mitigation measure are not required to be consistent with California GHG reduction goals and policies, could be used for other projects, and may not ever be required for the operational emissions.
- Without the accurate quantification of GHG emissions from the Project, the amount of necessary offsets cannot be determined.

*(Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-11])*

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## Response to Late Comment GHG-1: Approach to Analysis

The commenter reiterates the same comments previously submitted as part of comments on the Draft SEIR regarding the SEIR greenhouse gases (GHG) emissions impact analysis and refutes the detailed response presented in the RTC document, Section 13.14, Response GHG-2. The commenter provides no additional supporting evidence or reasons for refuting the



responses and simply repeats the same assertions. The GHG emissions analysis in the Draft SEIR, as modified in the RTC document, is in full compliance with CEQA and the CEQA Guidelines, as described in RTC Response GHG-2 and elaborated upon below.

As explained in the RTC document, even though both the AB 900 process and the CEQA process require analysis of GHGs, the two processes have separate and distinct requirements and purposes. (RTC, pp. 13.14-5 to 13.14-6.) The Draft SEIR does not rely on the AB 900 process or the project's certification as an environmental leadership project under AB 900 for the impact significance determination. The language quoted in the comment to suggest the SEIR improperly relies on the AB 900 analysis is shown as ~~striketrough~~ to show the text was deleted. (RTC document, p. 14-123-125.) This revision was made to clarify the distinction between the CEQA GHG emissions impact analysis and the AB 900 GHG analysis. (See RTC document, pp. 13.14-8 to 13.14-11.)

#### ***Qualitative Approach to GHG Impact Analysis***

SEIR Section 5.5 (pp. 5.5-8 to 5.5-9) explains the approach to the analysis of the potential impacts of GHG emissions due to the proposed project. The GHG emissions significance thresholds are based on CEQA Guidelines Appendix G, section VII. These thresholds state that the project would have a potentially significant impact related to GHG emissions if the project were to: "generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases." The analysis used in the SEIR is consistent with CEQA Guidelines Sections 15064.4 and 15183.5, which address the analysis and determination of significant impacts from a proposed project's GHG emissions. CEQA Guidelines Section 15064.4 allows lead agencies to rely on a *qualitative* analysis to describe GHG emissions resulting from a project. CEQA Guidelines Section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of greenhouse gases and describes the required contents of such a plan.

Accordingly, San Francisco has prepared its own Greenhouse Gas Reduction Strategy,<sup>1</sup> which the BAAQMD has reviewed and concluded provides aggressive GHG reduction targets and comprehensive strategies that help the Bay Area move toward reaching the State's AB 32 goals. San Francisco's Greenhouse Gas Reduction Strategy identifies actions the City is implementing to achieve cleaner energy, energy conservation, and alternative transportation and solid waste policies. For instance, the City has implemented mandatory requirements and incentives that have measurably reduced GHG emissions; these actions include, but are not limited to, increasing the energy efficiency of new and existing buildings, installation of solar panels on building roofs, implementation of green building strategies, adoption of a zero waste strategy, a construction and demolition debris recovery ordinance, a solar energy generation subsidy, incorporation of alternative fuel vehicles in the City's transportation fleet (including buses), and a mandatory recycling and composting ordinance. The Strategy

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<sup>1</sup> City and County of San Francisco, 2010. *Strategies to Address Greenhouse Gas Emissions in San Francisco*. Prepared by the San Francisco Planning Department. November 2010.



identifies 42 specific regulations for new development that would reduce a project's GHG emissions. San Francisco's policies and programs have resulted in a reduction in GHG emissions to below 1990 levels, exceeding statewide AB 32 GHG reduction goals.

The San Francisco Greenhouse Gas Reduction Strategy contains a quantitative analysis of City-wide GHG emissions and required reductions to lower City-wide GHG emissions to 1990 levels by 2020. The Greenhouse Gas Reduction Strategy quantifies the effects of actions to lower GHG emissions and determines that the implementation of the Greenhouse Gas Reduction Strategy will reduce GHG emissions in San Francisco to 1990 levels by 2020. The quantification completed for the Greenhouse Gas Reduction Strategy is sufficient such that projects compliant with the Strategy do not need to quantify their own individual GHG emissions.

The commenter points out that the BAAQMD CEQA Guidelines contain quantitative standards of significance, which were not addressed in the Draft SEIR or RTC document. However, this is a selective characterization of the BAAQMD CEQA Guidelines, which also allow "Compliance with Qualified Greenhouse Gas Reduction Strategy" as the threshold of significance in addition to the options of two quantitative thresholds. "Compliance with a Qualified Greenhouse Gas Reduction Strategy" is actually the first of the three alternative thresholds recommended by the BAAQMD and is the threshold OCII applied for the proposed project, as the City and County of San Francisco was one of the first lead agencies to have a GHG Reduction Strategy approved by the BAAQMD. This approach is consistent with how all other projects in San Francisco determine the significance of their GHG emissions.

Furthermore, the CAPCOA guidance cited by the commenter is considered by the BAAQMD in developing its own guidance, which OCII has elected to use to select the threshold of significance method for the proposed project, consistent with standard practice in San Francisco since the Greenhouse Gas Reduction Strategy was approved by the BAAQMD in October 2010.

The SEIR GHG emissions analysis determined that the proposed project would be consistent with San Francisco's Greenhouse Gas Reduction Strategy, as documented on the Greenhouse Gas Analysis Compliance Checklist (Impact C-GG-1, SEIR pp. 55.5-10 to 5.5-12). Because the City's local GHG reduction targets are more aggressive than those of the region or the State, consistency with the City's Greenhouse Gas Reduction Strategy necessarily demonstrates consistency with the State's GHG regulations, the Governor's executive orders, and the Bay Area 2010 Clean Air Plan. Therefore, the project's impacts related to GHG emissions were determined to be less than significant.

The comment cites *Berkeley Keep Jets Over the Bay Committee v. Board of Board Commissioners of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1371 (*Berkeley Keep Jets*), for the proposition that OCII was required to perform quantitative analysis for GHG impacts because quantitative data were available. Nothing in that case, however, suggests that OCII was required to perform a quantitative analysis in addition to the qualitative analysis included in the Draft SEIR.



In *Berkeley Keep Jets*, the court found an EIR's analysis of air quality impacts to be inadequate where the agency made no attempt to assess the health effects of Toxic Air Contaminants (TACs) emitted from mobile sources and therefore did not determine whether there would be a significant impact or discuss mitigation measures that might reduce the potential impact. In response to comments on this subject, the final EIR simply stated that the public health impact of the TAC emissions was "unknown" because there was no standard for evaluating the significance of the risk associated with mobile-source emissions of TACs. (*Berkeley Keep Jets*, *supra*, 91 Cal.App.4th at p. 1367.) Evidence was submitted to the agency, however, showing that an approved and standardized protocol did exist which would enable the agency to conduct a health risk assessment. (*Ibid.*) The court held that the agency could not ignore this information and must attempt to quantify the TAC emissions from mobile sources and determine whether those emissions would result in any significant health impacts. The court did not prescribe any particular methodology that the agency was required to use for its analysis. It simply found the agency's conclusion that there was no method available, and therefore no analysis could be performed, was unsupported. Here, in contrast, the Draft SEIR does analyze GHG emissions impacts and uses a qualitative analysis to analyze GHG impacts as permitted by CEQA Guidelines section 15064.4. OCII was not required to also perform a quantitative analysis to comply with CEQA. As the comment notes, a lead agency "shall have discretion to determine . . . whether to use a model or methodology to quantify GHG emissions" or to "rely on a qualitative analysis." (CEQA Guidelines, § 15064.4, subd. (a)(1), (2).)

The comment's disagreement regarding the methodology used to analyze GHG emissions impacts is noted. Under the substantial evidence standard, however, such disagreement does not mean the methodology was wrong or that additional analysis is required. (See *North Coast Rivers Alliance v. Marin Municipal Water District Board of Directors* (2013) 216 Cal.App.4th 614, 642 [substantial evidence standard applies "to disagreements concerning the methodology used for studying an impact, and the reliability or accuracy of the data upon which the EIR relied."].) As explained by the California Supreme Court: "A project opponent or reviewing court can always imagine some additional study or analysis that might provide helpful information. It is not for them to design the EIR. That further study . . . might be helpful does not make it necessary." (*Laurel Heights Home Improvement Assn. v. Regents of the Univ. of Cal.* (1988) 47 Cal.3d 376, 415.)

#### ***Relationship to AB 900 GHG Analysis***

The commenter repeats assertions that the SEIR GHG emissions impact analysis relied on the results of AB 900 GHG analysis. This is clearly not true. As described above, the SEIR GHG emissions impact analysis is based on finding consistency of the project with San Francisco's Greenhouse Gas Reduction Strategy. The quantification of GHG emissions for AB 900 is separate and independent from the determination of significance required for CEQA. As a matter of disclosure, however, the SEIR GHG emissions impact discussion does include a description of the AB 900 process, under which the California Air Resources Board determined that the proposed project would not result in any net additional GHG emissions for purposes of certification as an environmental leadership project under AB 900. Thus,



whether or not the AB 900 GHG emissions quantification included the office towers is immaterial to the determination of CEQA significance.

Furthermore, the comment states that the Draft SEIR's GHG emissions impact analysis is defective because it excluded emissions associated with operation of the two proposed office towers by claiming that this project component is "vested." The comment is wrong. The Draft SEIR analyzes potential GHG emission impacts for the entire project, including the office towers, using the qualitative methodology described above. (Draft SEIR, pp. 5.5-1 to 5.5-12.) Again, the comment seems to confuse the GHG analysis conducted for the AB 900 process with the GHG emissions impact analysis conducted for the SEIR as part of the CEQA environmental review process. As explained in the RTC document, even though both the AB 900 process and the CEQA process require analysis of GHGs, the two processes have separate and distinct requirements and purposes. (RTC, pp. 13.14-5 to 13.14-6.) The Draft SEIR does not rely on the AB 900 process or the project's certification as an environmental leadership project under AB 900 for the impact significance determination. Because the comment is referring to the AB 900 analysis and not the CEQA analysis in the Draft SEIR, the case law cited in the comment - *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 320 (CBE) - regarding the adequacy of EIRs does not apply.

The comment also states that excluding the towers from the SEIR's GHG emissions impact analysis but including them in the analysis of other impacts resulted in an inconsistent project description in violation of the court's holding in *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185 (*County of Inyo*). As noted above, the SEIR does not omit the office towers from any of the impact analyses and the project description is consistent and complete throughout the document. Therefore, *County of Inyo* does not apply.

#### ***GHG Monitoring and Reporting***

The commenter also states that the GHG analysis does not require project monitoring and reporting. As described above, the GHG impact was determined to be less than significant based on the project's consistency with the City's Greenhouse Gas Reduction Strategy. Although no mitigation measures are required for this less-than-significant impact, the regulations listed in the Greenhouse Gas Analysis Compliance Checklist is included in the Mitigation Monitoring and Reporting Program (MMRP), which, as described in Section 13.7 of the RTC document, Response IO-2, is part of the conditions of project approval.

#### ***Improvement Measure: Purchase Voluntary Carbon Credits***

As described above, SEIR Impact C-GG-1 was determined to be less than significant, and therefore no mitigation is required under CEQA. However, in acknowledgment of the project's designation as an environmental leadership project under AB 900 and its associated requirements, the SEIR includes Improvement Measure I-C-GG-1, Purchase Voluntary Carbon Credits. Inclusion of this improvement measure in the SEIR requires that this measure be included in the MMRP and further confirms the project sponsor's commitment to implement the measure. The amount of offsets is immaterial to the CEQA analysis, as no



mitigation is required under CEQA. Please see Response AB-1 in Section 13.4 of the RTC document for more detail on the offsets required by AB 900.

### *Project Design Features*

The commenter appears to suggest that project design features that are beneficial in terms of reducing GHG emissions should be treated as mitigation measures and not part of the project description. The commenter does not identify any specific design features in making this comment. The way a project is designed will necessarily impact the types, and significance, of environmental effects that may be caused by a project. Therefore, a lead agency should (and OCII properly did) evaluate the proposed project's potential GHG impacts in consideration of the project as proposed by the project proponent. (See, e.g., *North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors* (2013) 216 Cal.App.4th 614, 652 [upholding the GHG analysis for a desalination project and acknowledging that the design of the project "incorporate[s] high-efficiency pumps and the most advanced energy recovery systems available. The facility's system operations would also be designed to minimize energy use depending on the salinity and temperature of the Bay water."].) This approach is consistent with CEQA and is distinguishable from *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645 (*Lotus*). In *Lotus*, the EIR assumed as part of the project description that various, unspecified construction techniques that could "be done at the discretion of the contractor" would be implemented and determined impacts to old growth redwood trees were less than significant in consideration of these construction techniques. The court held that these types of construction techniques were too vague and uncertain, and should have been treated as mitigation measures for the purposes of CEQA.

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## SECTION 12: RESPONSES TO LATE COMMENTS ON WIND

The comments and corresponding responses in this section cover topics analyzed in SEIR Section 5.7, Wind and Shadow, as augmented in RTC document Sections 12.2 and 13.15. These include topics related to:

- Issue WS-1: Wind Impacts

### Issues Raised by Late Commenters on Wind Impacts

This response addresses all or part of the following comments, which are quoted below:

O-MBA16S6-4

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#### 4. Wind and Shadow

MBA previously commented that the DSEIR failed to analyze the Project's impact on on-site open space, which renders it defective as an informational document. (FSEIR, p. 13.15-1.) The FSEIR's response to this comment is not made in good faith, and instead is intended to conceal a significant impact (and thereby avoid recirculation) and improperly deferred mitigation.

The FSEIR first suggests that the open space provided on-site is somehow exempted from analysis because it consists of "publically [sic] accessible but private recreational areas." (FSEIR, p. 13.15-1.) This characterization, however, is inconsistent with the FSEIR's characterization of this open space as counting towards the Project's requirement to construct 0.46 acres of open space for each 1.0 acre of development area, which the FSEIR characterizes as "directly serv[ing] the project's demand for recreational facilities." (FSEIR, p. 13.16-3.) It is also inconsistent with the project applicant's own application materials, which provide:

##### DESIGN NARRATIVE: OPEN SPACE

The goals of the landscape design at Blocks 29-32 are to develop a unique place identity, **to connect new public spaces to the larger neighborhood, and to serve as a local and regional amenity. In addition to maximizing the quality of public space amenities for visitors and community members**, the landscape design also incorporates a diverse array of sustainability strategies.

...

Third Street Gardens and Plazas

...

This space is intended to both facilitate a porous connection between the street and the main plaza **and serve as an independent public space.**

...

Main Plaza

The main plaza is designed to accommodate seasonal programming and large events for the Bay Area community, as well as **function as a quality public space for the local neighborhood.** To accomplish this, the space is designed with maximum flexibility at its heart. Large-scale occupiable movable planters can be rearranged to accommodate various programs.

Generous lawn panels and a few large specimen trees will create a neighborhood park atmosphere during non-event times.

(Golden State Warriors Even Center and Mixed-Use Development Combined Basic Concept/Schematic Design Submittal, Blocks 29-32: Open Space, Gatehouse & Parking and Loading, p. 5 (emphasis added).)



In other words, the FSEIR characterizes this open space as “private” to avoid a wind analysis, but “public” for purposes of dismissing impacts to recreational facilities. The FSEIR’s characterization of this space as “private” is also inconsistent with the project applicant’s repeated representations about this space. This type of shifting project description is misleading and thwarts informed decision-making. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 197.)

What is more, the FSEIR’s attempt to narrow the scope of the required wind analysis by reference to Planning Code section 148 is misplaced. Indeed, if one were to simply apply the scope of that code section directly, it would not apply at all because the Project is being developed in a redevelopment area. Here, the 1998 Mitigation Monitoring and Reporting Program did not limit the application of a wind analysis to only those instances where Section 148 would apply on its own terms, but rather much more broadly:

Require a qualified wind consultant to review specific designs for buildings 100 feet or more in height for potential wind effects. The Redevelopment Agency would conduct wind review of high-rise structures above 100 ft. Wind tunnel testing would also be required unless, upon review by a qualified wind consultant, and with concurrence by the Agency, it is determined that the exposure, massing, and orientation of buildings are such that impacts, based on a 26-mile-per-hour hazard for a single hour of the year criterion, will not occur. The purpose of the wind tunnel studies is to determine design-specific impacts based on the above hazard criterion and to provide a basis for design modifications to mitigate these impacts. Projects within Mission Bay, including UCSF, would be required to meet this standard or to mitigate exceedances through building design.

(1998 EIR, p. VI.6., mitigation measure D.7.)

Thus, by its own terms this mitigation measure applies to “high-rise structures above 100 ft.” within any land use designation, and the scope of the affected area to review is in no way limited to “public open space” rather than so-called “private open space.” Nor is there any explanation that the scope of affected area is to be limited by Section 148.

The FSEIR’s misrepresentation on this issue is important because the FSEIR acknowledges that the Project would “exceed the wind hazard criterion” at no less than “three test points on the project site,” but promptly dismisses the significance of those exceedances because “wind effects at these locations are not considered significant impacts on the environment.” (FSEIR, p. 13.15-3.) The FSEIR reaches this strained legal conclusion, however, in order to avoid the factual issue that the de facto mitigation offered for that significant impact is impermissibly deferred under CEQA.

In short, the FSEIR undertakes a tortured legal analysis in order to conceal from the public the Project’s significant wind impacts on public open spaces within the Project. The SEIR must be recirculated to disclose this significant impact. (*Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-4]*)

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## Response to Late Comment WS-1: Wind Impacts

The commenter claims the Draft SEIR failed to analyze the project’s impact on on-site open space, and that this was intended to conceal a significant impact. As discussed in the Draft SEIR and in RTC document Section 13.15.2, Wind and Shadow, Response WS-1, consistent with the determination made in the 1998 Mission Bay FSEIR, the use of City Planning Code Section 148’s wind hazard standards are an appropriate methodology and criteria for the analysis of the proposed project. The intent and applicability of the City’s Section 148 wind hazard standards are to assess the environmental impact of winds in public areas of substantial pedestrian use. Section 148 criteria are not applied to private open spaces (with



or without public access), service areas, and other non-public areas. Consequently, the SEIR explicitly stated that the potential project exceedance of this hazard criterion in *off-site public* areas would be a significant environmental impact. Accordingly, the SEIR appropriately analyzes project wind hazard effects at off-site public areas, and identifies feasible mitigation measures to reduce those effects. However, because Section 148 criteria are not applicable to private areas, the wind effects on *on-site* publically accessible open space are not considered a significant environmental impact.

Nevertheless, because project wind effects on pedestrians at on-site, private open space may be of interest to members of the public and to decision-makers, the SEIR also presented a separate discussion of potential wind effects at the on-site areas of substantial pedestrian use, although this was for informational purposes only. The SEIR reported that this wind analysis indicated three test points on the project site would exceed the wind hazard criterion, and noted that the project sponsor would consider a range of feasible design refinements to effectively reduce on-site wind effects, including but not limited to, the proposed addition of landscaping within the plazas; and the potential installation of vertical porous screens, overhead protection such as tilted foils and archways, and/or other screening features on the event center perimeter walkway and other publicly accessible areas. As explained above, however, wind effects at these on-site private open space locations are not considered significant impacts on the environment, and therefore, mitigation is not required.

The commenter asserts that the “FSEIR first suggests that open space provided on-site is somehow exempted from analysis because it consists of ‘publically-accessible but private recreational areas.’ ” As discussed above and in Response WS-1 in the RTC document, the significance criteria used in the SEIR for potential wind hazard impacts are not applied to private open spaces; and furthermore, while the SEIR did discuss potential wind hazard effects at certain on-site privately-owned, publically accessible areas for informational purposes, such wind effects at these on-site publically accessible areas are not considered significant impacts on the environment.

The commenter claims the wind hazard significance criteria presented in the SEIR Wind and Shadow section is inconsistent with the Mission Bay Plan’s public open space requirements for new development that were presented in the Initial Study Recreation section. As discussed above, the SEIR wind hazard standards assessed the environmental impact of winds in public areas of substantial pedestrian use; this included public sidewalks (e.g. along Third Street, 16th Street, Terry A. Francois Boulevard and South Street) and public parks (e.g., Bayfront Park) in the project vicinity. The Mission Bay Plan’s public open space requirements that the commenter refers to (i.e., ratio of 0.46 acres of open space for each 1.0 acre of developable area) are related to the amount of open space within the Mission Bay Plan’s Open Space parcels (e.g., those that comprise Bayfront Park) that would need to be developed for each acre of developable area; this open space requirement does apply to the privately-owned publically-accessible open space being developed within Blocks 29-32. The



wind hazard significance criteria and Mission Bay Plan's public open space requirements are not related to each other, and there is no inconsistency between the two.

Similarly, the commenter claims the wind hazard significance criteria presented in the FSEIR Wind and Shadow section are inconsistent with the project sponsor's application materials, including the Design Narrative: Open Space. However, the FSEIR makes clear that the project proposes privately-owned, publically accessible space within the project site, and accordingly, that wind effects at these on-site private open space locations are not considered significant impacts on the environment. The wind hazard significance criteria and sponsor's Design Narrative for Open Space are not related to each other, and there is no inconsistency between the two.

In short, the discussion of open space from other documents that is quoted in the comment is not relevant to the wind impacts analysis. In any event, the comment does not identify any statements that are inconsistent with the information in the wind section, either in the Draft SEIR or elsewhere.

The comment cites *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, to suggest the inconsistent characterization of on-site open space mislead the public regarding the Project's potential wind impacts. As explained above, there are no inconsistencies in the description of on-site open space in any of the documents cited in the comment. In any event, *County of Inyo* is inapposite. As noted by the court in *Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4th 1036, 1062, "the problem with the EIR in *County of Inyo* was that the project description changed throughout the document itself. Many of the environmental impacts described in the EIR were related to the much broader project, rather than the smaller project described at various other points in the EIR." That has not occurred here. The comment does not point out any instances in the Draft SEIR where the project's open space elements are described inconsistently.

The comment states that the wind analysis is inconsistent with the 1998 Mission Bay SEIR and mitigation included in that document. That is not correct. Prior to discussing mitigation for wind impacts, the 1998 SEIR states: "The following mitigation measure is required to ensure that any potentially significant wind effect resulting from project are identified, evaluated and mitigated. While the standards of city Planning Code Section 148 do not apply to the project, its standards provide an appropriate methodology and criterion for the analysis of wind effects." (1998 Mission Bay SEIR, p. A.36.) Thus, consistent with the 1998 Mission Bay SEIR, the wind analysis performed for the project properly used Section 148 as the methodology and criterion for the analysis of wind effects. As explained above, Section 148 criteria are not applied to private open spaces (with or without public access), service areas, and other non-public areas. Therefore, as explained in the SEIR, potential wind effects at on-site publically accessible open space are not considered a significant impact on the environment. The commenter also asserts that Planning Code Section 148 should not apply to the project since the project site is located within a redevelopment area. As explained above, and further in Section 5.6 of the Draft SEIR, and in Section 13.15, Response WS-1, in



the RTC document, the Mission Bay FSEIR determined the use of City Planning Code Section 148's wind hazard standards were an appropriate methodology and criteria for the original wind analysis conducted for the Mission Bay Redevelopment Plan. Consistent with the determination made in the Mission Bay FSEIR, the use of City Planning Code Section 148's wind hazard standards are an appropriate methodology and criteria for the analysis of individual projects planned in the Mission Bay Redevelopment Plan area.

The commenter then references the discussion of wind effects of on-site publically-accessible areas of substantial pedestrian uses that was presented in the SEIR. As stated above, this discussion of potential wind effects at on-site publically-accessible areas was presented in the SEIR for informational purposes only. Furthermore, the SEIR notes that while wind effects at these locations are not considered significant impacts on the environment, and therefore, mitigation was not required, the project sponsor would consider a range of feasible design refinements to effectively reduce on-site wind effects.

See Response WS-1 in the RTC document for additional information on wind impacts.

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## SECTION 13: RESPONSES TO LATE COMMENTS ON RECREATION

The comment and corresponding response in this section cover topics analyzed in the Initial Study, Section E.10, Recreation, which is included in Appendix NOP-IS of the SEIR, as augmented in RTC document Section 13.16. These included comments related to:

- Issue REC-1: Bayfront Park

### Issues Raised by Late Commenters on Bayfront Park

This response addresses all or part of the following comments, which are quoted below:

O-MBA16S6-5

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#### 5. Recreation

The Alliance previously commented that the DSEIR's project description, including the routine influx of up to 18,000 people up to 225 times a year, refuted the DSEIR's conclusory assertion that the Project's demand for recreational facilities "would generally be consistent with that described in the Mission Bay FSEIR." The FSEIR fails to provide a good faith response to this comment. Rather than actually cite any report or analysis, the FSEIR merely restates its prior unsubstantiated claim. (DSEIR, p. 13.16-2.) Thus, there is no evidence whatsoever supporting this conclusion.

In the absence of any meaningful analysis regarding the Project's demand for recreational facilities, the FSEIR claims that the Project will not substantially degrade Bayfront Park in part because of "the inclusion of on-site publically accessible open space proposed by the project that would directly serve the project's demand for recreational facilities." (FSEIR, 13.16-3.) Yet this characterization of the Project's "open space" is inconsistent with the FSEIR's treatment of these areas in its wind analysis, which it characterizes as "publicly accessible but private recreational areas," (FSEIR, 13.15-1.) The FSEIR's inconsistent treatment of this important component of the Project thwarts informed decision-making and public participation.

The FSEIR also fails to respond in good faith to comments about hazardous materials exposure associated with construction and occupancy of Bayfront Park. The City first claims that Bayfront Park is somehow a separate CEQA project notwithstanding the fact that its existence is triggered by construction of the arena. (FSEIR, 13.16-4.) Setting aside the FSEIR's attempted legal obfuscation, the FSEIR then conclusively asserts that all issues of hazardous materials are satisfied because a Risk Management Plan ("RMP") has been approved for the area. (FSEIR, 13.16-5.) This response, however, ignores that the RMP itself is not sufficiently protective of human health because it is: (i) premised on outdated screening levels that are significantly higher than now utilized; (ii) does not address contaminated soil that was subsequently imported onto the Project site; and (iii) does not even address several contaminants that have been recently identified onsite at levels well above current screening levels.

In summary, the information submitted by the Alliance constitutes substantial evidence of a fair argument that the Project will have a significant adverse effect on recreational facilities. In the alternative, per CEQA section 21166 and CEQA Guidelines section 15162, the facts described above constitute a change in circumstances since the 1998 SEIR involving, and significant new information showing, a new significant effect not previously analyzed in the 1998 SEIR. Under either standard, the City must prepare and circulate for public comment an environmental impact report to review the Project's impacts on recreational facilities. (*Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-5]*)



### Response to Late Comment REC-1: Bayfront Park

The commenter asserts that the FSEIR provides no evidence supporting why the project's demand for recreational facilities would generally be consistent with that described in the Mission Bay FSEIR. As explained in RTC document Section 13.16.2 (Response REC-1), the Initial Study Section E.10, Recreation, acknowledges that development of the proposed project would increase demand for recreational facilities. Such demand would generally be consistent with that described in the Mission Bay FSEIR for the entire Plan area and would be readily met by planned parks and open space areas developed as part of the Mission Bay Plan, as well as by existing facilities in the project vicinity. As reported in the Initial Study, the Mission Bay FSEIR indicated 47 acres of open space were proposed within the Mission Bay Plan area, of which more than 15 acres of new, non-UCSF parks and open space have been completed. Pursuant to the Mission Bay Plan, open space would be constructed with each phase of Mission Bay development, in the amount of 0.46 acres of open space for each 1.0 acre of developable area until all open space is developed. The SEIR Initial Study, Recreation, also noted that the commercial uses proposed under the project would be located within the recommended 900-foot distance of open space, pursuant to the Mission Bay Plan.

As discussed in the RTC document, Section 13.16.2, Response REC-1 (page 13.16-5), existing and planned urban recreational facilities, such as Bayfront Park, Agua Vista Park, Bay Trail, and the cycle track on Terry A. Francois Boulevard are/would be designed and constructed to withstand substantial use and are capable of serving large numbers of visitors. These public facilities are regularly maintained by the applicable City departments to ensure substantial deterioration from use does not occur.

The project also proposes on-site open spaces areas to serve the project demand, including the proposed landscaped Third Street Plaza, the Southeast Plaza, Bayfront Overlook, Food Hall roof and various on-site pedestrian paths. Convenient bicycle facilities would also be located throughout the project site, including bike racks, and during events, temporary bike corrals. These on-site areas would directly serve the project demand for recreational facilities, and consequently, would limit the project demand for use of, and any associated effects to, other existing nearby recreational facilities.

Given the availability of existing recreational facilities in the project vicinity and region and the ability of these facilities to accommodate large crowds combined with the inclusion of on-site publically accessible open space proposed by the project that would directly serve the project's demand for recreational facilities, the increased use of existing recreation facilities would not result in substantial physical deterioration of these resources, or otherwise result in physical degradation of existing recreational resources. As explained in the Initial study, the proposed project's impacts on recreational resources were determined to be less than significant, and no mitigation is required. Furthermore, the project would not result in any new or substantially more severe impacts than those previously identified in the Mission Bay FSEIR.



The commenter also asserts that the characterization of the project's demand for "on-site publically-accessible open space" is inconsistent with the FSEIR's treatment of these areas in its wind analysis, which it characterizes as "publicly accessible but private recreational areas." However, the FSEIR accurately describes the project as a privately-owned development, but would provide on-site publically-accessible open space areas that would offer a variety of programmed and passive recreational uses. Consequently, there is no inconsistency between references in the SEIR to the proposed on-site publically-accessible open space and on-site publically-accessible recreational areas. More importantly, consistent with the significance criteria expressly used for each topic, the SEIR appropriately analyzes all potential project and cumulative impacts to off-site public recreational resources and facilities (see Initial Study Section 10, Impact RE-1, RE-2 and RE-3). Please also see Response to Late Comment WS-1: Wind Impacts, above.

The commenter also disputes that Bayfront Park is a separate CEQA project from the proposed project. As discussed in Section 13.16.2, Response REC-1, the Bayfront Park public access improvements on P22 are triggered by development on Block 29-32 according the Mission Bay Plan. However, Bayfront Park is not part of the project and therefore does not need to be analyzed in the SEIR for the proposed project. Bayfront Park was planned as part of the Mission Bay Plan and analyzed in the Mission Bay FSEIR long before the project and will be implemented by the master developer, FOCIL-MB, LLC. Environmental review for the park has already been completed as part of the Mission Bay Plan and portions of the park have already been developed. Further, the project and Bayfront Park each have independent purposes, can be implemented independently, and have different project sponsors. Therefore, Bayfront Park was not required to be analyzed in the SEIR as a component of the project. Nevertheless, potential cumulative impacts of the development of Bayfront Park were appropriately addressed in the SEIR.

The commenter contends that the FSEIR fails to respond in good faith to comments relating to the potential exposure to hazardous materials at the Bayfront Park. The commenter's reasoning is that the 1999 Mission Bay Risk Management Plan (RMP) is not sufficiently protective of human health because it (i) is premised on outdated screening levels that are significantly higher than now utilized; (ii) does not address contaminated soil that was subsequently imported onto the Project site; and (iii) does not even address several contaminants that have been recently identified onsite at levels well above current screening levels.

OCII disagrees with this comment and has responded in good faith to the issues raised by the comment. Both the RTC document Section 13.22 and Responses to Late Comments Section 18 provide extensive discussion of why the implementation of the RMP and the legally required Article 22A of the San Francisco Health Code (as specified in the RMP) ensure that the public would not be exposed to hazardous materials in the soil during construction and subsequent use of sites within the Mission Bay Plan area. While much of the discussion focuses on requirements as they relate to the project site, the same requirements are applicable to all development sites in the Mission Bay Plan area, including Bayfront Park.



As discussed in Response HAZ-9 of the RTC document, construction activities at Bayfront Park would need to comply with the requirements of the RMP that address notification of the RWQCB; handling and reuse of soil; air monitoring; design of utilities; use of backfill; and storage, treatment, and disposal of excavated soil. Section 4.3.5.5 of the 1999 Mission Bay RMP requires that soil used in landscaped areas accessible for human use must meet the prevailing standards for clean fill used in commercial development or meet specific requirements specified in the RMP. The fill must be between 1 and 1½ feet deep and must be underlain with water permeable synthetic fabric, which would restrict contact with contaminated soil by park users once the park is constructed. Soil containing visible or free flowing hydrocarbons may not be reused on site.

Further, as specified in the 1999 Mission Bay RMP and discussed in Responses HAZ-1 and HAZ-9 of the RTC document as well as Response to Late Comment HAZ-1, construction activities at Bayfront Park would be subject to Article 22A of the San Francisco Health Code (the Maher Ordinance), which requires site specific analysis of soil and groundwater and preparation of a site mitigation plan if hazardous substances are detected above California hazardous waste levels, RWQCB Environmental Screening Levels, or DTSC's California Human Health Screening Levels. In addition, the work will require preparation of a Dust Control Plan in accordance with Article 22B of the San Francisco Health Code which supplements the requirements of the RMP. While the measures specified in the 1999 Mission Bay RMP are deemed appropriate for the protection of human health and the environment during and after construction, in the event any special site conditions are found at the site during the implementation of the requirement specified above, Section 4.3.11 of the RMP requires the developer to prepare a site-specific RMP supplement if it is determined that the 1999 Mission Bay RMP does not adequately address site risks. Upon completion of construction, the developer would be required to submit a closure report to the San Francisco Department of Health, Environmental Health Branch, Site Assessment and Mitigation (EHB-SAM) documenting compliance with the RMP, site-specific RMP supplement, and Articles 22A and 22B of the San Francisco Health Code. With implementation of the requirements described above, park users would not be exposed to unacceptable levels of hazardous materials, and use of the park would not result in significant environmental impacts related to exposure to hazardous materials. As discussed in Response to Late Comment HAZ-1, the EHB-SAM has confirmed the applicability of Articles 22A and 22B of the San Francisco Health Code and their role in the regulatory oversight at Mission Bay sites.<sup>2</sup>

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<sup>2</sup> Cushing, Stephanie K. J., Principal Environmental Health Inspector, City and County of San Francisco Department of Public Health, Environmental Health, 2015. Letter dated November 10, 2015 to Karen Toth, Department of Toxic Substances Control, regarding Soluri Meserve Letter—October 23, 2015, Mission Bay Development Contamination, including all attachments.



## SECTION 14: RESPONSES TO LATE COMMENTS ON UTILITIES

The comments and corresponding responses in this section cover topics analyzed in SEIR Section 5.7, Utilities and Service Systems and the Initial Study, Section E.11, Utilities (see Appendix NOP-IS of the SEIR), as augmented in RTC document Section 13.17. These include topics related to:

- Issue UTIL-1: Cumulative Impacts on Wastewater Facilities
- Issue UTIL-2: Description of Interim Improvements

### Issues Raised by Late Commenters on Cumulative Impacts on Wastewater Facilities

This response addresses all or part of the following comments, which are quoted below:

A-UCSF2-4

O-MBA20L7-6

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- Finally, we ask that the City produce an explanation of how the wastewater treatment capacity at Mission Bay's Mariposa basin will be made adequate to serve all projected development at Mission Bay, and what the mitigation plan is and the solution is to this longstanding problem. Despite repeated requests from UCSF, the City has produced no information, nor identified a specific solution to this problem. This will affect all development parties at and around Mission Bay, including UCSF, both in wastewater service for existing facilities, as well a proposed new facilities. (*University of California San Francisco, Lori Yamauchi, letter, November 3, 2015* [A-UCSF2-4])
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#### A. The Response to Comment UTIL-3 is Inadequate.

The response to comment UTIL-3 states:

Impact C-UT-2 explains that the project, in combination with past, present, and foreseeable future development in the drainage area of the Mariposa Pump Station, would require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. As the owner and operator of the combined sewer system, the SFPUC is responsible for design and construction of the needed improvements to the wastewater facilities in the Mariposa sub-basin. The SFPUC has not identified the specific improvements that would be required to accommodate wastewater flows from the reasonably foreseeable projects and site-specific analysis cannot be performed until they are identified by the SFPUC. (SEIR, p. 5.7-15.) For this reason, site-specific environmental review for the future improvements cannot be included in the SEIR.

Although it is not possible to analyze the impacts of construction of the permanent pump station improvements in greater detail than provided in the SEIR because the SFPUC has not identified specific improvements required, Impact C-UT-2 discloses the type of environmental impacts that would be expected from construction of new wastewater treatment facilities or expansion of existing facilities and the likelihood that such impacts will occur. This discussion satisfies CEQA's requirements for cumulative impacts analyses. (CEQA Guidelines, § 15130, subd. (b); see also *Association of Irrigated Residents v. County of Madera*, supra, 107 Cal.App.4th at p. 1403 [cumulative impacts analysis satisfies CEQA when it "sets forth the possible cumulative impacts . . . and then analyzes the likelihood of the actual occurrence of such impacts"].)



Any future permanent improvements to address cumulative wastewater impacts are not part of the project and are not a reasonably foreseeable consequence of the project itself. (SEIR, pp. 5.7-11 to 5.7-13 [the existing wastewater treatment facilities have sufficient capacity for the proposed project by itself].) Rather, as explained in Impact C-UT-2, the improvements would be necessary only as a result of the combined demand on the wastewater system from the project in combination with other future cumulative development projects in the drainage area of the Mariposa Pump Station. Future improvements in the SFPUC's wastewater system are beyond the project sponsor's control.

(FSEIR, Vol. 5, pp. 13.17-11.)

This response essentially says that the Project is "first come, first served" for purposes of using up remaining sewer system capacity in the Mariposa sub-basin. But the assertion that the cumulative future projects listed in the referenced report by Hydroconsult Engineers (i.e., Blocks 25b, 33-34, 40 and Hospital Phase 2),<sup>1</sup> will be operational further in the future than the Project is unsupported. In fact, these cumulative future projects are not even listed in the cumulative future projects list on page 5.1-8 - 10. As a result, the SEIR's assertions are unsupported and untestable.

The response's assertion that "Future improvements in the SFPUC's wastewater system are beyond the project sponsor's control" is also unsupported; in fact, it is contradicted by overwhelming evidence. Where it is advantageous to the project, the SEIR assumes the City will do things over which the project sponsor has no control to support the project, e.g., comply with its NPDES permit, provide transportation infrastructure to handle the crowds, etc. Indeed, the City is named as a responsible party or is directly involved in dozens of mitigation measures identified in the proposed Mitigation Monitoring and Reporting Program.<sup>2</sup> But here, the SEIR takes an inconsistent position, disclaiming any Project Sponsor control over a different matter within the City's control, i.e., expansion of the sewer system, apparently for no reason other than it is advantageous to the project to do so.<sup>3</sup>

**Footnote:**

<sup>1</sup> Hydroconsult Engineers, Inc. 2015. Combined Sewer Impact Analysis, Golden State Warriors Arena EIR. February 25, referenced on RTC, p. 13.17-15, n 8.

<sup>2</sup> One example is Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts: "The project sponsor shall work with the City to pursue and implement commercially reasonable, if feasible, additional strategies (i.e., in addition to those included in the project TMP) to reduce transportation impacts. In addition, the City shall pursue and implement, if feasible, additional strategies to that could be implemented by the City or other public agency (e.g., Caltrans)."

<sup>3</sup> The San Francisco Public Utilities Commission is a department of the City and County of San Francisco.

(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-6])

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### Response to Late Comment UTIL-1: Cumulative Impacts on Wastewater Facilities

The commenter contends that Response UTIL-3 of the RTC document does not adequately address previous comments regarding the capacity of the Mariposa Pump Station to accommodate cumulative wastewater flows. The comment states that cumulative projects considered in the wastewater flow projections are not included in the list of potentially cumulative projects provided on pp. 5.1-8 through 5.1-10 of the SEIR. In addition, the commenter questions the conclusion that future improvements to SFPUC's wastewater system are outside of the project sponsor's control because in other sections of the SEIR City agencies are named as a responsible party or are directly involved in implementation of the specified mitigation measures. Another comment (A-UCSF2-4) asks the City for an



explanation of how the wastewater treatment capacity in the Mariposa Sub-basin will be made adequate to serve all of the projected development in Mission Bay.

### *Basis for Cumulative Analysis*

The SEIR uses a professionally-accepted, standard approach to assessing impacts related to exceeding the capacity of the Mariposa Pump Station. As discussed in Impact UT-5 (SEIR pp. 5.7-9 through 5.7-13) as augmented in Response UTIL-5 of the RTC document (Section 13.17.6), the direct impact of the project on the capacity of the Mariposa Pump Station is based on the estimated peak wastewater flows from the project compared to the remaining capacity of the Mariposa Pump Station. Total peak wastewater flows from the project in combination with existing peak waste water flows were determined to be 3.48 mgd. These flows are within the existing 3.5 mgd capacity of the Mariposa Pump Station. Thus, the existing system has adequate conveyance capacity to handle existing peak wastewater flows, along with peak wastewater flows associated with the project.

Cumulative Impact C-UT-2 of the SEIR (pp. 5.7-13 through 5.7-17) addresses operational impacts associated with conveyance of project-related wastewater flows in combination with those from past, present, and reasonably foreseeable future development in the drainage area of the Mariposa Pump Station. The SEIR analyzes whether the combined flows could exceed the 3.5 mgd capacity of the Mariposa Pump Station, and if so, whether permanent upgrades to the pump station, force mains, and downstream gravity sewers would be necessary to provide the capacity to convey the cumulative wastewater flows to the Southeast Water Pollution Control Plant.

As documented in the technical memorandum provided in Appendix HYD of the SEIR,<sup>3</sup> reasonably foreseeable future developments in the drainage area of the Mariposa Pump Station that are considered in the volume of future wastewater flows include developments on Blocks 25b, 33 to 34, and 40 as well as Phase 2 of the University of California, San Francisco (UCSF) Medical Center. The commenter states that these projects are not properly described in the SEIR. This statement is incorrect. As stated in SEIR Section 5.1.5.2 (pp. 5.1-8 to 5.1-9), the SEIR only lists projects that could contribute to operational cumulative impacts that were *not* anticipated in the 1998 Mission Bay FSEIR. Projects that were previously analyzed and accounted for in the 1998 Mission Bay FSEIR are not listed; in particular, individual projects that are a part of the overall Mission Bay Redevelopment Plan, such as the development on Block 40, are not listed as a cumulative project for operational impacts because they were previously analyzed in the 1998 Mission Bay FSEIR. The project planned on Block 25b is a UCSF research and parking facility and the project planned on Block 33 to 34 is a UCSF research facility to be constructed as part of UCSF's East Campus. These and UCSF's Phase 2 Medical Center are all projects associated with implementation of the UCSF Long Range Development Plan for the Mission Bay Campus that is described on p. 5.1-8 of the SEIR. Adding anticipated flows from these potential projects into the cumulative impact analysis would result in double-counting these same anticipated flows.

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<sup>3</sup> Hydroconsult Engineers, Combined Sewer Impacts Analysis, February 25, 2015.



Impact C-UT-2 concluded that the project would contribute to a cumulative impact related to the need for future improvements to the Mariposa Pump Station and associated facilities, and that the project's contribution would be considered cumulatively considerable. The SEIR further concluded that cumulative impacts related to requiring or resulting in the construction of new wastewater treatment facilities or expansion of existing facilities would be significant unavoidable because of the following: the design of the conveyance improvements has not been determined; the design and construction of the facilities is outside of the project sponsor's control; and the timing for completion of the improvements is not known.

### *Project Sponsor Control over Construction of Pump Station Improvements*

The commenter is mistaken in stating that the SEIR conclusion that "Future improvements in the SFPUC's wastewater system are beyond the project sponsor's control" is "unsupported." The SFPUC is responsible for the overall operation of the combined sewer system throughout the entire City, and must design and construct the Mariposa Pump Station improvements in a manner that conforms to the overall system-wide needs. More specifically, the design of the Mariposa Pump Station must consider overall operation, maintenance, and regulatory requirements of the Bayside system, including compliance with the National Pollutant Discharge Elimination System (NPDES) permit for the Southeast Water Pollution Control Plant, the North Point Wet Weather Facility, and the Bayside wet-weather facilities (referred to as the Bayside NPDES Permit).<sup>4</sup> The design of the conveyance improvements in the Mariposa Sub-basin of the combined sewer system must be integrated with the design and operation of the overall system to ensure continued compliance with the Bayside NPDES Permit. The design must also take into account such issues as cost effectiveness and reliability. The design of these improvements must also be determined in consultation with the Regional Water Quality Control Board, San Francisco Bay Region, which has regulatory authority over the Bayside NPDES permit. These design considerations transcend the issues associated with wastewater flows from any particular project within the Mariposa Pump Station drainage area, such as flows from the project. That is why the SEIR states that addressing this cumulative impact is beyond the project sponsor's control and is the responsibility of the SFPUC. While the project sponsor may have some influence over implementation of other SEIR mitigation measures that involve other City agencies, in this case the project sponsor does not have this control. The SEIR appropriately includes and relies on the actions of City agencies to mitigate an impact where feasible measure have been adequately developed and it is within the project sponsor's control to implement them.

SFPUC has not abdicated its responsibility for addressing this cumulative impact. SFPUC is actively engaged in determining the appropriate design of such facilities, taking into account the considerations outlined above.

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<sup>4</sup> California Regional Water Quality Control Board, San Francisco Bay Region. City and County of San Francisco, Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and Wastewater Collection System. Order No. R2-2013-0029. NPDES No. CA0037644.



### *Design of Conveyance Improvements*

In response to Comment A-UCSF2-4, permanent and long-term improvements to the Mariposa Pump Station and associated force mains and downstream gravity sewers would be required to convey cumulative wastewater flows from the Mariposa sub-basin of the combined sewer system to the Southeast Water Pollution Control Plant, as discussed in Impact C-UT-2 of the SEIR (pp. 5.7-13 through 5.7-17). The SFPUC is responsible for implementing these improvements. While the SFPUC has not yet identified a timetable for completing these long term improvements and has not developed specific plans or designs for construction of the proposed improvements, the SFPUC has initiated the design process. Upon determination by the SFPUC of the nature and cost of needed improvements, the SFPUC will coordinate with both the project sponsor and UCSF regarding the design of these improvements as part of each party's commitment to pay their fair share towards the construction of the long-term improvements in accordance with SEIR Mitigation Measure M-C-UT-4 (p. 5.7-20 of the SEIR) and Mitigation Measure UTIL-MB-1 of UCSF's 2014 Long-Range Development Plan EIR (p. 7-100). In particular, Mitigation Measure M-C-UT-4 ensures that the project sponsor will contribute to the cost of the long-term improvements, once those improvements have been identified by SFPUC.

The potential long-term improvements to the system would consist of installing higher-capacity pumps at the Mariposa Pump Station, expanding the capacity of force mains and downstream gravity sewers, or some combination of these improvements. SFPUC has determined that these improvements are feasible. The specific improvements have not been identified. SFPUC is in the process of identifying the appropriate design of these improvements, taking into account the various considerations outlined above, and in consultation with UCSF, the project sponsor and the Regional Board.

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### **Issues Raised by Late Commenters on Description of Interim Improvements**

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-37

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### **UTIL-6 Description of Interim Improvements**

The response identifies that the interim improvements have already occurred and were not associated with the project, however further identifying that the proposed project would have needed the same improvements to accommodate the project. Yet, even more improvements will be required beyond the interim improvements:

*"The SFPUC has concluded that long-term permanent improvements to the Mariposa Pump Station will be required in order to handle anticipated, cumulative future flows. As noted in Impact C-UT-2 of the SEIR (p. 5.7-15), the SFPUC has not identified a timetable for completing the long term improvements to the Mariposa Pump Station, and has not developed specific plans or designs for construction of the proposed improvements."*



The project appears to attempt to have it both ways, the capacity is sufficient, after having built the interim improvements for the current project, yet close enough to the physical limits of these improvements that it is likely to need significant re-engineering in the near, but indeterminate future. It appears that the project is attempting to avoid the current impact analysis and not have to deal with its cumulative impacts. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-37]*)

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## Response to Late Comment UTIL-2: Description of Interim Improvements

The commenter states that “The project appears to attempt to have it both ways, the capacity is sufficient, after having built the interim improvements, yet close enough to the physical limits of these improvements that it is likely to need significant reengineering in the near, but indeterminate future. It appears the project is attempting to avoid the current impact analysis and not have to deal with its cumulative impacts.” This statement misrepresents the SEIR analysis and is factually wrong.

Project impacts related to exceeding the capacity of the Mariposa Pump Station are addressed in Impact UT-5 of the SEIR (pp. 5.7-11 through 5.7-13). As discussed in that impact analysis and in Response UTIL-6 of the RTC document (Section 3.17.7), the SFPUC constructed interim improvements to the pump station in 2015 to accommodate peak wastewater flows from the planned and approved development in the Mission Bay Plan area, including flows from planned UCSF developments. These interim improvements have already been completed and were necessary regardless of construction of the proposed project; they were not constructed to accommodate wastewater flows from the project. With these existing improvements in place, the conveyance capacity of the Mariposa Pump Station is adequate to handle existing peak flows, plus peak flows associated with the project.

As discussed in Impact UT-5 (SEIR pp. 5.7-11 through 5.7-13) as augmented in Response UTIL-5 of the RTC document (Section 13.17.6), the total peak wastewater flows from the project in combination with existing peak waste water flows would be 3.48 mgd. This total peak wastewater flow volume is close to the 3.5 mgd capacity of the Mariposa Pump Station, but does not exceed the capacity of the pump station. Therefore, the proposed project would not require the construction of new wastewater treatment facilities or expansion of existing facilities, and this project-level impact would be less than significant as concluded on p. 5.17-12 of the SEIR.

Cumulative impacts related to exceeding the capacity of the Mariposa Pump Station and associated force mains and downstream gravity sewers are addressed in Impact C-UT-5 of the SEIR (pp. 5.7-13 through 5.7-18) and Response UTIL-3 of the RTC document (Section 13.17.4). As discussed in this impact analysis and response, project-related flows in combination with those from past, present, and foreseeable future development in the drainage area of the Mariposa Pump Station could exceed the 3.5 mgd capacity of the Mariposa Pump Station and future upgrades to the pump station, associated force mains,



and/or downstream gravity sewers would be necessary to accommodate the estimated cumulative wastewater flows. The SEIR determines that the project would contribute to a cumulative impact related to the need for permanent improvements to the waste water conveyance system. The SEIR further concludes that cumulative impacts related to requiring or resulting in the construction of new wastewater treatment facilities or expansion of existing facilities would be significant unavoidable for the reasons described above in Response to Late Comment UTIL-1.

As discussed above, the commenter states that “the project appears to attempt to have it both ways.” This statement is incorrect. The SEIR concludes that the Mariposa Pump Station has the capacity to accommodate project-related flows under current conditions (Impact UT-5, pp. 5.7-11 to 5.7-13) and that the direct impacts of the project would be less than significant. Conversely, under cumulative conditions, the capacity of the pump station, associated force mains, and downstream gravity sewers could be exceeded with the addition of future cumulative flows, including those of the proposed project, and the SEIR conservatively determined that the project's contribution would be cumulatively considerable, resulting in a significant and unavoidable impact (Impact C-UT-2, pp. 5.7-13 to 5.7-17). As approved, the project sponsor must pay its fair share towards the cost of the long-term improvements, once SFPUC has determined what those improvements will be, estimated the cost, and calculated the project's fair share. (See Mitigation Measure M-C-UT-4.) OCII approved this measure. (See Mitigation Monitoring and Reporting Program, p. MMRP-34.)

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## SECTION 15: RESPONSES TO LATE COMMENTS ON BIOLOGICAL RESOURCES

The comments and corresponding responses in this section cover topics analyzed in the Initial Study, Section E.13, Biological Resources (see Appendix NOP-IS of the SEIR), as augmented in RTC document Section 13.19. These include topics related to:

- Issue BIO-1: Wetlands
- Issue BIO-2: Biological Resources Setting
- Issue BIO-3: Special-status Species and Sensitive Natural Communities
- Issue BIO-4: Avian Impacts

### Issues Raised by Late Commenters on Wetlands

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-8      O-MBA20L7-41      O-MBA20L7-44      O-MBA20L7-48  
O-MBA20L7-49

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#### C. The Response to Comment Bio-5 is Inadequate.

##### 1. Waters of the U.S. and Waters of the State are Present on the Site

The FSEIR argues that the wetland feature on the site is not a state or federal wetland. Yet Response BIO-5 provides no evidence of consultation with either the U.S. Army Corps of Engineers ("Corps") or the State Water Resources Control Board ("SWRCB") regarding the status of the feature. With respect to the jurisdiction of the Corps, the FSEIR claims that under draft regulations that are stayed, the feature would be exempted from jurisdiction. This interpretation is not supported by any specific language in the referenced Sixth Circuit Court of Appeals decision, and thus has no authority.

The FSEIR also argues that the site was never abandoned such that the feature would have been "recaptured" as a wetland under the Clean Water Act. Yet no explanation is provided for the lack of any activities at the site or changes to the wetland feature between 2007 and 2014, a period of seven years. This inactivity at the site is demonstrated in the plates included in the July 16, 2015, BSK Technical Memorandum Regarding the Proposed Warrior Arena Wetland Features. (Attached as Exhibit K, see Figures 2a-2e.)

The FSEIR also makes the circular argument that the existence of priority pollutants within the wetland feature is irrelevant because the City does not consider the wetland feature to be jurisdictional. Again, no credible evidence is provided to support the argument that the wetland is not subject to federal jurisdiction in the first place.

The FSEIR incorrectly relies exclusively on federal law and ignores the broader jurisdiction of the state over all of its waters, including wholly constructed features. As such the SEIR fails to adequately describe the site physical features, the relevant regulatory requirements, and the avoidance, minimization and mitigation requirements it would be subject to. State waters are more broadly defined than waters of the U.S.: "Waters of the state" means any surface water or groundwater, including saline waters, within the boundaries of the state." (Wat. Code, 13050, subd.(e).) This has been interpreted by the SWRCB to literally "include all waters within the state's boundaries, whether private or public, including waters in both natural and artificial channels."

Contrary to RTC BIO-5, the fact that the remediation at the site was at one time overseen by the San Francisco Regional Water Quality Control Board ("RWQCB") has no bearing on whether the feature would be considered jurisdictional by the SWRCB. While the SWRCB may choose to follow jurisdictional determinations by the Corps, the SWRCB has much broader authorities and may also



assert jurisdiction under the parameters of Water Code section 13050, subdivision (e). As the FSEIR cannot point to any jurisdictional determination by the Corps, there is nothing for the SWRCB to follow; therefore, it would follow its own regulations and orders. (Executive Order W-59-93 attached as Exhibit N; State Water Resources Control Board Memorandum, January 25, 2001, Effect of SWANCC v. United States on the 401 Certification Program attached as Exhibit O; State Water Resources Control Board Guidance, June 25, 2004, for Regulation of Discharges to "Isolated" Waters attached as Exhibit P; State Water Resources Control Board Order NO. 2004-0004-DWQ attached as Exhibit Q; State Water Resources Control Board Resolution NO. 2008-0026 attached as Exhibit P).

The FSEIR's attempted rebuttal of the need for a Coastal Zone Management Act ("CZMA") consistency determination is also incorrect. In addition to claiming that the requirement does not apply because the City (not the Corps or the SWRCB) has determined that the feature is not jurisdictional, the FSEIR argues that filling the wetland would have no effect on resources in the coastal zone. As explained below, however, the wetland complex has significant habitat value to biological resources and supports coastal resources.

To further substantiate the existence of the wetland features on the site, BSK Associates has prepared a desktop delineation for submittal to the Corps to finally resolve the issue of jurisdiction. (See Exhibit L.) The exact nature of the wetland feature is described in the attached report, which determines that there are 0.51 acres of permanent wetlands at the site. The delineation also explains that the wetland provides the following nexus functions with the San Francisco Bay: (i) Sediment trapping, (ii) Nutrient recycling, (iii) Pollutant trapping, transformation, filtering, and transport, (iv) Retention and attenuation of flood waters, (v) Runoff storage, (vi) Export of organic matter, (viii) Export of food resources, and (ix) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species.

The purpose of environmental review is to inform the public of the likely effects of carrying out a project. Here, the IS/NOP failed to accurately describe the wetland on the site, or to even provide a process by which the feature would be further investigated and the appropriate mitigation required. The information submitted by the Alliance constitutes substantial evidence of a fair argument that the Project will have a significant adverse effect on biological resources. In the alternative, per CEQA section 21166 and CEQA Guidelines section 15162, the facts described above constitute a change in circumstances since the 1998 SEIR involving, and significant new information showing, a new significant effect not previously analyzed in the 1998 SEIR. Under either standard, the OCII and the City must prepare and circulate for public comment an environmental impact report to review the Project's impacts on this wetland resource. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-8]*)

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#### **Response BIO-5: Wetlands**

The basic premise of the Response is that there simply is no reversion, since at any time the site could have been developed, and the pit filled in (p. 13.19-31). Again, as stated in the initial BSK assessment of site conditions, that particular line of argument fails to acknowledge again that the site was not consistent with the Order and the Revised Remedial Management Plan (RRMP) at the time it did not backfill the pit [[grammer makes this unclear]]. The Response ignores the BSK rebuttal that by the DSEIR's own logic, no site could ever revert since all that is required to demonstrate that it was not reverted would be an assertion of future development potential. All of the discussion regarding waters definitions has already been rebutted by BSK's detailed analysis. No substantive new information has been provided by the Response. The only new information in the Response is that they believe that state wetland laws only apply to federal wetlands and waters, which BSK showed previously it does not, and state wetland law is vastly more expansive and subject to different, state authorities. (p. 13.19-34) (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-41]*)

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It remains our opinion that the DSEIR continues to fail to identify and mitigate for the project impacts to waters and wetlands at the site; as well as the potential impacts to biological resources within and around the site through contact with hazardous waste. The following section goes into each of these issues in greater detail. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-44]*)

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The purpose of this memorandum is to provide description and an assessment of the site's waters and wetland conditions at Blocks 29-32, Mission Bay Project in San Francisco, California (Vicinity Map Figure 1).

BSK Associates (BSK) provided a screening-level site visit of the proposed project area to assess its condition from the public right-of-way, shown on Figure 2. A combination variable intensity, pedestrian and vehicular survey was made of the site perimeter and of areas of the project site clearly visible from the public right-of-way on June 30, 2015. The approach, assumptions, significance evaluation, and results are summarized below.

#### **SITE OBSERVATIONS**

The proposed project footprint consists of two large paved areas (Southwest parking lot approximately 79,910 sq.ft./1.83 ac. and Northeast parking lot approximately 91,776 sq.ft./2.11 ac.)<sup>1</sup> currently being used as paid parking lots; an area of soil stockpiles (31,066 sq.ft./0.71 ac) on the eastern edge of the property (Terry A. Francois Boulevard); and an adjoining large open field, open water (22,115 sq.ft./0.51 ac) and wetland swale complex, (904 sq.ft./0.02 ac.) (closest to the Southwest parking lot) shown on Figure 2. A series of photographs were taken of the site and the adjoining areas (Attached Photo Plates).

At the time of observation, the open water area encompassed the majority of the water feature, with a patchy, but substantial fringe of palustrine emergent (predominately alkali bulrush [*Bolboschoenus maritimus*]) and riparian plants (willows [*Salix* sp.]). The visible forb layer was typical of this sort of site. The plants were concentrated on the two narrow ends of the water feature. The narrower channel and the seasonal wetlands apparent from the aerial photographs (Figures 2a-i) were not clearly visible from the site perimeter fence(s).

Numerous native birds were observed within, and in some cases flying to and from the water body. Several Canada geese (*Branta canadensis*) were seen, including what appear to be adult plumage juveniles; three killdeer (*Charadrius vociferous*), including two juveniles; a female mallard and a juvenile (*Anas platyrhynchos*); several crows (*Corvus brachyrhynchos*); two non-native Eurasian collared-doves (*Streptopelia decaocto*); and numerous non-native rock doves/pigeon (*Columba livia*). The site has significant use for nesting and foraging by these bird species.

#### **WATERS AND WETLAND FEATURE HISTORY**

The site is within the footprint of the historic Mission Bay, which has been filled in over time (ESA 2014; Pg. 1). The original Bay muds are still found below the site, as evidenced by the site soil borings (LTR 2015; Pg. 13 and Figures A-2 and A-3). The excavation intercepted local shallow groundwater and is evidently maintained by that natural source (LTR 2015; Pg. 14). The site also has seasonal wetland features which appear to be dominated by stormwater. It is not clear that these seasonal features would not be maintained for far longer in the spring, but they have been captured through an excavated trench apparently intended to drain them to the open water body (ESA 2014; Pg. 2). The site "remedial" activities thus captured the local water table and allowed for the expression of open water and wetland features (ESA 2014; Pg. 2). The ESA analysis goes on to specifically identify that the: "...deeper excavation and surrounding shallow depressions within the proposed project site are features that exhibit hydrology and vegetation characteristics of wetlands. Hydric soil is presumed present due to the year-round inundation and presence of obligate wetland plants." (ESA 2014; Pg. 3)



For additional purposes of comparison, BSK has provided a time-series of aerial photos of the site using Google Earth historic imagery for the period spanning 1938 through 2013 (Figures 2a, through 2i). The imagery provides a clear indication of vegetation through its distinct shape, and indications of both reflectance and morphology for water features. The time series does not provide information for the missing intervals, and so the relative changes of feature geometry (relative position and size) over time are used to confirm persistence of those features.

July 1938 - The site has numerous apparent industrial uses, ranging from warehousing and tank storage, to railroads (Figure 2i). There is a ruderal area on the site on the northwestern corner.

July 1946 - These conditions appear similar to 1938 (Figure 2h).

June 21, 1987 - The site has similar activities, but with new buildings, less rail facilities and what appears to be a small concrete batch plant and material storage area on the western edge of the site (Figure 2g).

September 25, 2001 - These details are much clearer, with the inclusion of a large soil stockpile on the eastern edge of the site (Figure 2f). On October 5, 2005, the site has had most of the buildings removed and several large stockpiles, as well as a large parking area (Figure 2e). The apparent interception of the local water table in one of the excavated areas is visible (See WRA 2014; ESA 2014; and LTR 2015).

February 2007 - The large excavation and a single large water feature are visible, by March 2007, that feature was approximately 87,000 sq.ft./2 ac. (Figure 2d).

May 6, 2009 - There are two large parking lots visible and the main excavation has been filled through the middle such that it now has two features, and numerous small seasonal water features (Figure 2c). On April 3, 2011, the apparent open water and seasonal wetland features have naturalized with several areas of vegetation growing in around them (Figure 2b).

January 1, 2013 - The water features are again fully flooded and consist of two large wetted areas (Figure 2a). According to the aerial photograph, the total waters and wetland area was approximately 31,000 sq.ft./0.71 ac. on October 24, 2014. The available Google Earth historic imagery supports the history of water body formation and maintenance over time.

## **WATERS AND WETLANDS**

The Clean Water Act (CWA) is the primary federal law in the United States governing water pollution and regulating water quality standards for surface waters. The basis of the CWA was enacted in 1948 (the Federal Water Pollution Control Act), but the Act was significantly reorganized and expanded in 1972. Both the US Army Corps of Engineers (USACE) and the US Environmental Protection Agency (USEPA) administer elements of these laws, but typically the USACE provides the waters and wetlands delineation protocols, administers the permitting program for wetland-impacting projects, and the USEPA provides oversight. Federal waters and wetland policy differs in several key regards from California, although there is much similarity. California also has a role in the CWA wetland permitting process through the 401 Certification process.

The term "wetlands" from a 404 perspective generally means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands typically include swamps, marshes, bogs, and similar areas. These are typically identified using a three-part test, examining the presence of water, wetland (hydric) soil, and wetland dependent (hydrophytic) vegetation, following specific guidance(s). The federal CWA section 404(b)(1) Guidelines list both wetlands and mud flats as types of "special aquatic sites".

In California, the State Water Resources Control Board (State Water Board) is responsible for establishing policy on State waters and wetlands. The policy is implemented through regulations established by the State Water Board and nine Regional Water Quality Control Boards (in the site's case the San Francisco Regional Water Quality Control Board). The Boards also administer the CWA 401 Certification, which in some cases covers only portions of wetlands, and the Water discharge



Requirements (WDR) for the non-Federal portions, if present. There are additional specific statutes and orders that also define or promote policy objectives regarding California's wetlands, such as EO-W-59-93<sup>2</sup> and California Department of Fish and Game Streambed Alteration Agreement, among others. In addition, Porter-Cologne Water Quality Control Act (Cal. Water Code, Div. 7) can apply to coastal wetland projects (§ 13142.5), in particular to unabated chemical discharges from construction or chemical waste stockpiles.

A wetland under California's regulations contains the following features:

An area that is covered by shallow water or where the surface soil is saturated, either year-round or during periods of the year; Where that water coverage has caused a lack of oxygen in the surface soil; and, has either no vegetation or plants of a type that have adapted to shallow water or saturated soil. Some examples are fresh water marshes, bogs, riparian areas, vernal pools, coastal mud flats and salt marshes.

In addition, wetlands according to the CA Coastal Commission are defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats (14 CCR 13577(b)). Furthermore, given the special salinity conditions associated with wetlands within the coastal zone, they also means lands which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens (Cal. Pub. Res. Code § 30121).

In this case, there are both a permanent water body and a seasonal feature (possibly a small complex) with wetland characteristics by the admission of the experts who prepared the environmental documentation for the project. These characteristics clearly meet the definitions contained in the various regulations, including 14 CCR 13577(b), Cal. Pub. Res. Code § 30121. The open water feature and its hydrophytic vegetation was verified in the field, and through the use of aerial photos, showing their presence over time, both by season and by year.

#### *Federal Jurisdiction*

Wetlands created by human actions fall under a couple of discrete classes under Federal jurisdiction. Most typically these are agricultural features that are caused by the movement of water from one location to another, such as a dam providing water to a canal constructed in uplands. In this case however, the site was originally a tidal mudflat or estuary wetland which has since reverted back to a wetland (ESA 2014). In addition, even if it was not originally a water or wetland, it currently meets those adjacency, and direct hydrologic connectivity requirements under the Final Clean Water Rule (2015; 33 CFR Part 328 and 40 CFR Parts 110, 112, 116, 117, 122, 230, 232, 300, 302, and 401); and, even manmade wetlands and water bodies have restrictions on discharges under 33 CFR 323.4(b).

There are Federal exemptions for specific construction associated activities. These exemptions (33 CFR 323.4 - Discharges not requiring permits) are invalidated, however: "If any discharge of dredged or fill material resulting from the activities listed in paragraphs (a) (1) through (6) of this section contains any toxic pollutant listed under section 307 of the CWA such discharge shall be subject to any applicable toxic effluent standard or prohibition, and shall require a section 404 permit." (33 CFR 323.4(b)).

The site's water and soils include several chemicals identified under CWA section 307 as toxic pollutants (BBL 2006; LTR 2015).<sup>3</sup> Those chemicals include the following 12 Priority Pollutants found in the in the LTR Phase II (LTR 2015; Table 4 and Table 5):

1. Benzene
2. Naphthalene
3. Cyanide
4. Antimony



5. Arsenic
6. Chromium
7. Copper
8. Lead
9. Mercury
10. Nickel
11. Selenium
12. Zinc

Therefore, the site is not exempted under 33 CFR 323.4 because it contains 12 of the chemicals identified as priority pollutants under section 307.

The site's consultant, WRA, in a separate analysis, has attempted to claim exemption from the CWA under yet a different test (without identifying that any exemption is invalidated by the section 307 test described above (WRA 2014; Pg. 2)). WRA states that: "1986 (51 Fed. Reg. 41206) (e) Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States."

This explanation, instead of demonstrating how the site may be exempted as an incidental construction feature, provides documentation that clearly shows how that feature has been abandoned. Therefore the exemption also does not apply on that basis. The site owner's clear and continuing failure to backfill the feature and its abandonment for the past decade, despite being under Order No. R2-2005-0028 and its RRMP, is on its face abandonment and its clear reversion to the definition of waters, wetlands and/or other special aquatic site.

Indeed, there is no merit to the further argument made by WRA (Pg. 4) that: "As described in the RWQCB Order No. R2-2005-0028, the Project Area was to be excavated and backfilled in preparation for future development as part of the overall Mission Bay redevelopment plan." The site was not backfilled. It should be noted by WRA's argument there could never be a case for reversion under the CWA, because any naturalized feature would simply 'be ready' for some postulated future backfilling. The provided analysis fails to show: 1. How the feature has not reverted and 2. How the exemption override under 33 CFR 323.4 does not apply due to the presence of section 307 toxic chemicals. Regardless, WRA is simply silent on the open water and wetland features in context of the State water and wetland policy and applicable regulations.

#### *California Jurisdiction*

California does not have the same exemptions in its waters and wetland framework as exist under the CWA. California derives its authority from different sources (Porter-Cologne Water Quality Control Act) for its policies, and includes all man-made features under its jurisdiction. Therefore the site's water features, regardless of origin, appear to be regulated and protected waters of the State and wetlands.

#### **SITE ABANDONMENT AND HAZARDOUS CHEMICALS**

The site "remedial" activities captured the local water table and allowed for the expression of wetland characteristics and the site has naturalized over time (ESA 2014; Pg. 2). These activities have resulted in the creation of stockpiles of material that in some cases: "...contains contaminants that exceed hazardous waste threshold concentrations and will require special handling and disposal." adjacent or near to these wetland features (TWR 2015; Pg 1). These activities took place over several years culminating in a Phase II remedial action that left the excavated area open and abandoned in 2005 (LTR 2015; Pg. 6). The Revised Risk Management Plan (RRMP, BBS; Pg. 2-3 and 2-3) infers that the excavation was backfilled, however, it was not.

The RRMP further identifies that: "1. Because North Terminal, Parcel X4, OAS and 16th Street East OUs are currently under development, interim risk management measures (IRMMs) designed for



undeveloped parcels are not relevant to the protection of human health on those OUs. If development ceases or areas are created with uncovered native soils, IRMMs may again be necessary.” (BBS 2006; Table 1) The development of the site still has not occurred, and there is no evidence that the IRMMs have been applied.

The site’s open water and wetland features are thus a direct result from the abandonment of a site cleanup allowed to revert back to a natural state for approximately a decade. Not only did natural features evolve in response to this abandonment, but the very abandonment created conditions that may have exposed wildlife to a variety of hazardous chemicals (LTR 2015).

## CONCLUSIONS

The site has active wildlife use, open water and various forms of wetland features according to our observations (as well as those observations made by others), and appears to be subject to both State and Federal regulations associated with the protection of these species, their habitat, and these features (ESA 2014). These regulations have several requirements that apply to the protection of wildlife and waters, including but not limited to, the Migratory Bird Treaty Act, the federal Clean Water Act, Section 404, and the State’s various Clean Water Act responsibilities, and its own Porter-Cologne requirements. It is our opinion that the appropriate course of action for this site include:

1. The site owner immediately ceases the placement of any and all fill material, including hazardous materials, into any of the water and wetland features, until those wetlands have been delineated using the appropriate protocols; the appropriate State and Federal Permits have been secured; and, the appropriate compensatory mitigation has been implemented.
2. The site owner immediately ceases the uncontrolled runoff from the staged covered, and any hazardous material piles, into these features.
3. The protection of wildlife that occupy the site be established through the implementation of a Worker Environmental Awareness Plan, and that Plan includes protection breeding birds and their offspring.

### Footnote:

<sup>1</sup> 2015 Google Earth

<sup>2</sup> [http://www.waterboards.ca.gov/water\\_issues/programs/cwa401/docs/wrapp2008/executive\\_order\\_w5\\_9\\_93.pdf](http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/wrapp2008/executive_order_w5_9_93.pdf)

<sup>3</sup> <http://water.epa.gov/scitech/methods/cwa/pollutants-background.cfm>

*(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-48])*

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## 1. INTRODUCTION

BSK Associates (BSK) completed a waters assessment and wetland delineation under the direction of Soluri-Meserve for the proposed Mission Bay development project site (Blocks 29-32). The site is owned by the Golden State Warriors after a recent sale from Salesforce.Com, Inc. The purpose of the delineation was to identify potential wetland features within the project footprint. BSK is requesting a Preliminary Jurisdictional Determination (JD) for the purposes of verification of “waters” and the wetland features at this proposed project site. The purpose of this report is to provide supporting description and an assessment of the site’s waters and wetland conditions at Blocks 29-32, Mission Bay Project in San Francisco, California (Vicinity Map Figure 1). The approach, assumptions, significance evaluation, and results are detailed below.

## 2. GENERAL SITE DESCRIPTION

The approximately 12-acre proposed project site (hereinafter the “site”) is located in San Francisco, CA on bounded by 3rd, 16th and South Streets, and Terry Francois Blvd (to the east). This site has also been identified as parcel lots 29-32 within the greater Mission Bay South Development (Site Map Figure 2). The site vicinity and location figures are provided at the end of this report. The “Area of Potential Effect” (APE) is within the central and southwestern portion of the site. The site is



bounded by urban development on all four sides, including parking lots on two sides (west and north). The eastern and northeastern sides of the site have staged piles of previously identified potentially hazardous materials (BBL 2006 and LTR 2015).

The terrain is nearly flat, although the western third of the site slopes steeply towards the pond area. The majority of the site is disturbed, with several large areas of barren soil, intermixed with low density non-native annual ruderal and grassland habitats. Within that disturbed area, there are wetland features which are further described in this study.

The APE contains features with wetland characteristics, including a series of swales (approximately 904 sq.ft./0.02 acre) that radiate from the east to the west into to an approximately 22,115 sq.ft./0.51 acre open water pond feature. This pond feature is located approximately 702 feet from the open water of the Bay, with the swales located between the pond and the Bay.

### **2.1 Waters and Wetland Feature History**

The site is within the footprint of the historic Mission Bay, which has been filled in over time (ESA 2014; Pg. 1). The original Bay muds are still found below the site, as evidenced by the site soil borings (LTR 2015; Pg. 13 and Figures A-2 and A-3). The pond intercepts local shallow groundwater and is evidently maintained by that natural source (LTR 2015; Pg. 14). The site also has seasonal wetland features which appear to be dominated by stormwater influences. It is not clear that these seasonal features would not be maintained for far longer in the spring, but they have been captured through an excavated trench apparently intended to drain them to the pond (ESA 2014; Pg. 2). The ESA analysis goes on to specifically identify that the: "...deeper excavation and surrounding shallow depressions within the proposed project site are features that exhibit hydrology and vegetation characteristics of wetlands. Hydric soil is presumed present due to the year-round inundation and presence of obligate wetland plants." (ESA 2014; Pg. 3)

For additional purposes of comparison, BSK has provided a time-series of aerial photos of the site using Google Earth historic imagery for the period spanning through 2013 (Figures 3, 4 and 5). The imagery provides a clear indication of vegetation through its distinct shape, and indications of both reflectance and morphology for water features. The time series does not provide information for the missing intervals, and so the relative changes of feature geometry (relative position and size) over time are used to confirm persistence of those features.

May 6, 2009 - There are two large parking lots visible and the main pond feature has been filled through the middle such that it now has two features, and numerous small seasonal water features (Figure 3).

On April 3, 2011, the apparent open water and seasonal wetland features have naturalized with several areas of vegetation growing in around them (Figure 4).

January 1, 2013 - The water features are again fully flooded and consist of two large wetted areas (Figure 5). According to the aerial photograph, the total waters and wetland area was approximately 31,000 sq.ft./0.71 ac. on October 24, 2014. The available Google Earth historic imagery supports the history of water body formation and maintenance over time.

### **3. REGULATORY BACKGROUND**

Any person, firm, or agency planning to alter or work in navigable waters of the U.S., including planning to discharge dredged or fill material, must first obtain authorization from the USACE. Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act of 1899 prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from the USACE (33 U.S.C. § 403). Section 301 of the Federal Water Pollution Control Act and Amendments of 1972 (CWA) prohibits the discharge of pollutants, including dredged or fill material, into waters of the U.S. without a Section 404 permit from USACE (33 U.S.C. § 1344). State Water Quality Certification may be required by the Regional Water Quality Control Board before other permits are issued. If a proposed project will result in the alteration of a California lake or streambed, the California Department of Fish and



Wildlife (CDFW) require notification prior to commencement, and may require a Lake or Streambed Alteration Agreement.

According to the Code of Federal Regulations, the definition of “waters of the U.S.” includes:

- (1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
  - (2) All interstate waters including interstate wetlands;
  - (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce.
  - (5) Tributaries of waters identified in paragraphs (a) (1) through (4) of this section;
  - (6) The territorial seas;
  - (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.
- (33 C.F.R. § 328.3)

This approach to the waters determination extent has been modified somewhat with recent revisions under the Clean Water Rule, now subject to litigation<sup>1,2</sup>:

- (8) All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1) through (3) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (a)(1) through (5) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1) through (3) of this section.

And, a more detailed nexus test:

“(5) Significant nexus. The term significant nexus means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (a)(1) through (3) of this section.

The term “in the region” means the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream paragraph (a)(1) through (3) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (c)(5)(i) through (ix) of this section. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (a)(1) through (3) of this section. Functions relevant to the significant nexus evaluation are the following:

- (i) Sediment trapping,
- (ii) Nutrient recycling,
- (iii) Pollutant trapping, transformation, filtering, and transport,
- (iv) Retention and attenuation of flood waters,
- (v) Runoff storage,
- (vi) Contribution of flow,
- (vii) Export of organic matter,
- (viii) Export of food resources, and



- (ix) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.”

However, that rule is held in abeyance and follows the historic application of applying relevant case law, applicable policy, and the best science and technical data on a case-by-case basis in determining which waters are protected by the Clean Water Act, until litigation over the subject matter is resolved.

Wetlands are defined as:

“...those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

(USACE 1987, p. 9, citing Federal Register 1980, 1982)

The USACE and the Environmental Protection Agency issued the U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook on May 30, 2007, to provide guidance based on the Supreme Court’s decision regarding *Rapanos v. United States* and *Carabell v. United States* (USACE, 2007a, p. 6).

The decision provides new standards that distinguish between traditional navigable waters (TNWs), relatively permanent waters (RPWs), and non-relatively permanent waters (non-TNWs). Wetlands adjacent to non-TNWs are subject to CWA jurisdiction if: the water body is relatively permanent, or if a water body abuts a RPW, or if a water body, in combination with all wetlands adjacent to that water body, has a significant nexus with TNWs (USACE, 2007a, pp. 6 to 7). The significant nexus analysis assesses the flow characteristics and functions of the water on the “chemical, physical, and biological integrity of downstream traditional navigable waters” (USACE, 2007b, p. 6).

#### **4. METHODOLOGY**

BSK conducted a fenceline wetland delineation at the site on June 30, 2015. A combination variable intensity, pedestrian and vehicular survey was made of the site perimeter and of areas of the project site clearly visible from the public right-of-way. During the site visit, BSK staff followed to the wetland delineation process set forth in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0 (USACE, 2008) and verified using the adjacent zone’s Western Mountains, Valleys, and Coast Region (Version 2.0). These methods include vegetation identification using the USACE State of California 2014 Wetland Plant List (USACE, 2014), including vegetation densities, soil classifications, plant species classification to the extent possible given the site access conditions. Some features could only be identified using desktop analysis of available aerial imagery. Because of documented hazardous wastes and the fact that permission to enter the site was not available, the BSK wetland scientist performed a visual survey from adjacent public roads and right of ways. Because of this limited access, qualified wetland scientists worked with BSK’s GIS specialists to identify and estimate the extent of the features remotely, using topographic maps and aerial photography. Animal and plant species observed during the site visit are included in Table 1 at the end of this report.

Wetlands were differentiated from uplands based upon visible hydrology, soil patterns, and vegetative characteristics, as well as observations by workers in a prior assessment (ESA 2014). The wetland boundaries were determined by site-specific characteristics that would result in the best representation of all three parameters using the available information.

##### **5.1.1 Hydrophytic Vegetation**

Hydrophytic vegetation was evaluated by a field assessment and comparing plant species with the USACE State of California 2014 Wetland Plant List (USACE, 2014). This list determines the possibility of whether plants are found in wetlands, uplands, or both. After classification, the USACE “rapid test” was conducted to determine the hydrophytic vegetation parameter.



### 5.1.2 Wetland Hydrology

It should be noted that the site was surveyed during a “drought year” (USBR, 2014). This requires “Difficult Wetland Situations” procedures (USACE, 2008). Surveys conducted during drought years require a slight variation in the approach to wetland delineation. This approach provides a better estimate of wetland potential based on the three parameters (wetland hydrology, hydric soils, hydrophytic vegetation) during a drought. Indicators A1, B1, B4, B6, B7, B8 and B10 were identified.

### 5.1.3 Hydric Soil

Hydric soils were not possible to assess given the nature of this assessment. However, ESA identified hydric soils but did not specify their Munsell color codes (ESA 2014).

## 5.2 Wetlands and Other Waters of the U.S.

Wetlands and other waters were described using the Cowardin classification system (Cowardin et al. 1979). As described above, approximate wetland boundaries were assessed by using the available characteristics and the supplemental features that demonstrated USACE characteristics for wetland and adjacent upland areas. All features that potentially met USACE wetland criteria were recorded as polygons and recorded on Figure 2. The boundaries of wetlands were extrapolated from the field map by following topographic contours, clear hydrologic boundaries, and wetland vegetation boundaries.

Cowardin’s wetland classification is as follows, Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; 2 and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin et al. 1979).

Other waters of the U.S., were delineated using the methods described above and supported by the use of ‘A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States’ (USACE 2008a), and in USACE Regulatory Guidance Letter No. 05-05 (USACE 2005), where appropriate. These methodologies provided an approach for identifying the lateral limits of other waters of the U.S., using stream geomorphology and vegetation (USACE 2008a). Indicators of the ordinary high water mark (OHWM) evaluated in the field included natural lines impressed on banks, stain lines, depositional features, shelving, changes in soil character, changes in vegetation, destruction of terrestrial vegetation, and the presence of litter and debris. A clear debris line and shelf was visible.

## 5. OBSERVATIONS

The approximately 12-acre site includes two large paved areas (Southwest parking lot approximately 79,910 sq.ft./1.83 ac. and Northeast parking lot approximately 91,776 sq.ft./2.11 ac.) currently being used as paid parking lots; an area of soil stockpiles (31,066 sq.ft./0.71 ac) on the eastern edge of the site (Terry A. Francois Boulevard); and an adjoining large open field, open water (22,115 sq.ft./0.51 ac) and wetland swale complex, (approximately 904 sq.ft./0.02 ac.) (closest to the Southwest parking lot) shown on Figure 2.

At the time of observation, the unvegetated, open water area encompassed the majority of the water feature, with a patchy, but substantial fringe of palustrine emergent (predominately alkali bulrush [*Bolboschoenus maritimus*]) and riparian plants. The visible forb layer was typical of this sort of ruderal site. The plants were concentrated on the two narrow ends of the water feature. The narrower channel and the seasonal wetlands apparent from the aerial photographs (Figures 3, 4 and 5) were not clearly visible from the site perimeter fence(es). Using the Cowardin classification, the pond feature appears to presumptively meet the Palustrine Aquatic Bed, algal class.

In terms of its biological use and wetland habitat function, numerous native birds were observed within, and in some cases flying to and from the water body. Several Canada geese (*Branta canadensis*) were seen, including what appear to be adult plumage juveniles; three killdeer (*Charadrius vociferous*), including two juveniles; a female and a juvenile mallard (*Anas*



*platyrhynchos*); several crows (*Corvus brachyrhynchos*); two non-native Eurasian collared-doves (*Streptopelia decaocto*); and numerous non-native rock doves/pigeon (*Columba livia*). The site has significant use for nesting and foraging by these bird species.

The approximately 12-acre project site, where vegetated, is primarily non-native (ruderal) grassland habitat. The APE is almost exclusively comprised of the herb stratum. It is bounded by urban development on all four sides. The drainage patterns for the entire property are complex but from observations, including the aerial photos, it appears that the bare ground portion and parts of the paved parking lots provide the contributing watershed for the pond.

The western portion of the site contains the most visible potential wetland characteristics and therefore, it was analyzed for wetland characteristics within the APE (approximately 0.53 acres). The features are connected by a large ditch excavated to apparently drain the swale. The wetland surface is concave with a roughly rectangular shape in this area and approximately 30-40 feet across at the widest section.

Aerial imagery from 2008 and 2010 identifies the east of the pond with standing water. The seasonal feature is much larger than mapped because it appears that it has been newly drained into the pond feature through a large trench. This satisfies the wetland hydrology parameter "B7" and meets the wetland hydrology criterion. This plot was located within a seasonal wetland.

## 6. DISCUSSION

As a part of the delineation process, a preliminary search of the relevant historic and modern records of the project area was completed by BSK. Those records include National Wetland Inventory (NWI) and Soil Conservation Service (SCS) maps and Federal Emergency Management Agency (FEMA) databases were conducted to evaluate if any documented wetlands were located on or near the site. The NWI and SCS databases do not identify wetlands or hydric soils respectively within the APE. This is because the site is identified as urban developed and non-natural conditions as a result of the historic filling of the Mission Bay. San Francisco has not yet completed FEMA flood maps of this area. Soil profiles were identified in the following report, LTR 2015, which verified that the site was developed on fill, placed over the Bay muds. The nearest open water to the project site is San Francisco Bay located approximately 702 ft. east of the project site.

San Francisco Bay is considered jurisdictional waters of the U.S. pursuant to Section 404 of the Clean Water Act (USACE, 1987, p. 2; 33 C.F.R. § 328.3). Mission Bay itself was an open tidal bay within the estuary, fully navigable and subject to use in international commerce. The bay was filled in a series of stages prior to the CWA (LTR 2015).

The site features are located approximately 702 feet from the nearest documented waters, tidal waters of the United States - San Francisco Bay, therefore adjacent to waters, meet the significant nexus tests; and are "other waters" as well, namely an open water pond feature and its associated wetlands is. The wetland features have been independently judged by two sets of wetland experts as having met wetland criteria for hydrology and vegetation (BSK and ESA), and soils (ESA). The site has been subject to significant recent disturbance which has apparently removed most of the vegetation associated with the seasonal wetlands. But these characteristics were evident despite being assessed during a drought season (USBR, 2014). Historic aerial photos from verify standing water on the site (Digital Globe, 2014). Therefore, all three the wetland hydrology indicators are satisfied (USACE, 2008).

The APE is within 1,000 feet of tidal waters (702 feet to the permanent water feature, and appears to provide the nexus functions: (i) Sediment trapping, (ii) Nutrient recycling, (iii) Pollutant trapping, transformation, filtering, and transport, (iv) Retention and attenuation of flood waters, (v) Runoff storage, (vi) Export of organic matter, (vii) Export of food resources, and (ix) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species (BSK 2015; ESA 2014; DSEIR 2015. It further contains characteristics of a wetland as defined by the USACE, and therefore, should be classified as waters and a wetland within the identified wetland boundary.



## 7. LIMITATIONS

The observations, assessment and recommendations submitted in this report are based upon the data obtained from existing reports prepared by others, limited field investigation, and limited access site observations. The report does not reflect variations which may occur beyond the assessed area. The findings of the field observation may have a potential for negative impact(s) on the value or suitability of the site for some purposes. BSK cannot assume liability for any such negative impact(s). Permitting requirements or permit interpretations may change over time. The findings of this report are valid as of the present. However, changes in the conditions of the site can occur with the passage of time, whether caused by natural processes or the human-induced changes on this property or adjacent properties. In addition, changes in applicable or appropriate standards or practices may occur, whether they result from legislation, governmental policy, or the broadening of knowledge. BSK's services were performed in a manner consistent with the level of care and skill ordinarily exercised by other professionals practicing in the same locale and under similar circumstances at the time the work is performed.

BSK has prepared this report for the exclusive use of Soluri-Meserve. The report has been prepared in accordance with generally accepted practices which existed in northern California at the time the report was written. No other warranties either expressed or implied are made as to the professional advice provided under the terms of BSK's agreement with Soluri-Meserve.

TABLE 1 OBSERVED BIOLOGICAL RESOURCES		
Scientific Name	Common Name	Wetland Status
<b>Plants</b>		
<i>Schoenoplectus maritimus</i>	Alkali Rush	OBL
<b>Animals</b>		
<i>Anas platyrhynchos</i>	Mallard	
<i>Branta canadensis</i>	Canadian Goose	
<i>Columba livia</i>	Rock Dove	
<i>Corvus brachyrhynchos</i>	American Crow	
<i>Streptopelia decaocto</i>	Eurasian collared-doves	

Source: BSK Associates, 2015

OBL: Obligate, FACW: Facultative Wetland, FAC: Facultative, FACU: Facultative Upland, UPL: Upland, N/A: Not available (USACE, 2014)

\* <http://rsgisias.crrel.usace.army.mil/NWPL/>

TABLE 2 ESTIMATED AREA OF POTENTIAL EFFECT UPLAND AND WETLAND ACREAGES	
Area	Acreage
Upland	11.47 acres
Permanent Wetland	0.51 acres
Seasonal Wetland	0.02 acres
<b>TOTAL</b>	<b>12.0 acres</b>

### Footnotes:

<sup>1</sup> [http://www2.epa.gov/sites/production/files/2015-05/documents/fact\\_sheet\\_summary\\_final\\_1.pdf](http://www2.epa.gov/sites/production/files/2015-05/documents/fact_sheet_summary_final_1.pdf)

<sup>2</sup> <http://www2.epa.gov/cleanwaterrule/clean-water-rule-litigation-statement>

(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-49])



## Response to Late Comment BIO-1: Wetlands

### *Regulatory Jurisdiction*

The comment states that the FSEIR provides no evidence of consultation with the U.S. Army Corps of Engineers (Corps) or State Water Resources Control Board in regards to the remediation that was undertaken on the site. In both the Draft EIR (Initial Study pp. 115 to 119) and the RTC document (Section 13.19, pp. 13.19-31 to 13.19-40), there was extensive reference to the Regional Water Quality Control Board's (RWQCB) Order as it relates to the remediation undertaken at the site that involved excavation of contaminated soil and monitoring of the groundwater and the compliance of the responsible parties to those Orders. The remediation was part of the preparation of the site for development. As stated in the RTC Response BIO-5 (pp. 13.19-31 to 13.19-40), because the site always has been and is currently under active study and seeking approvals for development, the site has not been abandoned and is not subject to federal jurisdiction under the Clean Water Act. There is no requirement to consult with the Corps of Engineers when that agency has no jurisdiction over the property in question.

The RTC Response BIO-5 recognized that the regulations adopted by the EPA and the Corps on August 28, 2015 were stayed by the Sixth Circuit Court of Appeals; however, the specific exemptions applicable to this site continue to be the policy and practice of the Corps of Engineers under the existing regulations.

The commenter further asserts that the FSEIR incorrectly relies exclusively on federal law and ignores the broader jurisdiction of the state over all of its water. The RTC Response BIO-5 provided an explanation of the procedures and policies adopted by the State Water Resources Control Board and the Regional Water Quality Control Boards in terms of permitting over wetlands. The question at hand is not the definition of state waters, but rather how federal and state law relate to permitting over wetlands.

The commenter states that the FSEIR cannot point to any jurisdictional determination by the Corps. The comment cites documents that are not relevant to the fact that the project site is not considered jurisdictional and is not subject to federal or state regulations as wetlands. The remediation actions were required by the RWQCB as a part of the process of the future development of the site and therefore, the responsible parties did, in fact, undertake activities in response to a RWQCB Order. However, the water-filled depressions resulting from that ordered action are clearly not subject to regulations promulgated by the Corps of Engineers and the U.S. Environmental Protection Agency. On the other hand, the documents cited in the comment, refer to natural wetlands that are not considered jurisdictional under federal Supreme Court decisions. In these instances, if the Corps makes a determination that a wetland feature is "isolated", it is still subject to state permitting. No such decision is required for the subject site as it is not considered jurisdictional.

The comment states that the site is subject to the Coastal Zone Management Act (CZMA). As noted above, the conditions on the site have been fully described in the Draft SEIR, Initial Study, and RTC document, and all relevant mitigations for biological resources have been



identified. No further analysis is required under the CZMA as no further federal permitting action is required under the federal regulations relating to the Clean Water Act.

In addition, the comment misinterprets RTC Response BIO-5 to say that state law is different than federal law in terms of application to the project site. As explained in the RTC document, the state process is consistent with and part of the federal wetland permit process. The State Water Resources Control Board maintains a web site on the wetland permit process and its wetland program ([http://www.waterboards.ca.gov/water\\_issues/programs/cwa401/](http://www.waterboards.ca.gov/water_issues/programs/cwa401/)). On that web site, it provides a link to its current regulatory practice as it relates to wetlands entitled under the Clean Water Act Section 401 Water Quality Certification Program which states:

“The State's Water Quality Certification (WQC) Program was formally initiated in 1990 in response to the requirements of Clean Water Act (CWA) §401. Issuing WQC for discharges requiring U.S. Army Corps of Engineers' permits for fill and dredge discharges remains a core responsibility. But the Program has evolved into also being the State's de facto wetland protection and hydromodification regulation program.” (Page 1)

The State issues both 401 Water Quality Certifications and, for larger projects, Waste Discharge Requirements, to projects that require fill of wetlands as defined by the Corps of Engineers. As noted in the response to comments, the State is in the process of adopting a state wetland policy however, at present, the 401 Water Quality Certification program is the de facto wetland policy for the state.

### *Site Activities*

The comment states that in their opinion, the alleged lack of physical activities is a basis for potential regulation of the site under Section 404 of the Clean Water Act. Physical activity as interpreted by BSK, a technical consultant engaged by the Mission Bay Alliance, from aerial photographs, is erroneously considered to be the only measure applicable to this site with respect to its site history. As noted in the RTC Response BIO-5, the remediation conducted on the site was undertaken as the first step in the plan for redevelopment of the site. The site was purchased by various parties for the purpose of development, plans prepared, environmental studies undertaken, and applications submitted for development,<sup>1,2</sup> including the most recent approval process. Some of these activities involve physical actions that are not discernable from aerial photographs. Nonetheless, there is no requirement in the Corps regulations for continued physical activity to be occurring. Design, environmental review, and permitting are normal steps in receiving approvals for development and such development cannot proceed without these approvals. To suggest that lack of physical activity is the only measure of a property owner's continued interest and eventual use of a

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<sup>1</sup> Salesforce.com Global Headquarters Complex, Master Plan & Major Phase Submittal, Mission Bay South: Blocks 26, 27, 29, 30, 31, 32, 33, & 34. Submitted to San Francisco Redevelopment Agency. September 13, 2011.

<sup>2</sup> San Francisco Planning Department, 2012. Executive Summary, Office Allocation for Salesforce proposal at Mission Bay Blocks 29-32. February 22, 2012. (Case report 2011.1423B for the Salesforce office allocation previously proposed at the project site.)



property is inconsistent with regulations and the required procedures necessary to undertake eventual physical actions to develop the property.

In addition, the comment mischaracterizes the development activities that have been undertaken on the site. There is not merely an “assertion of future development”, but rather concerted and consistent development activities including environmental study, project design, and submittal of applications for development. The evidence includes the materials submitted for the project site and is described in the Initial Study, Draft SEIR, and the RTC document. Remediation activities conducted in 2001 and 2005 involved extensive construction activity to remove buildings, underground storage tanks, and other related infrastructure. Since that time, redevelopment of the site has been actively pursued by OCII and private developers (i.e., major phase approvals as well as Basic Concept and Schematic Designs for each relevant major phase for Alexandria Real Estate Equities in 2006, and Salesforce.com in 2011, with the most recent approval on January 31, 2012). Currently, the site is subject to planning and study for the construction of the proposed project.

#### *Presence of Hazardous Materials on the Site*

The comment states that a circular argument exists in RTC Response BIO-5 related to priority pollutants, yet ignores the fact that Section 323.4 of the Clean Water Act discussing priority pollutants deals with exempted activities that do not require permits. None of the activities (e.g., agriculture, logging roads, and temporary sediment basins) discussed under Section 323.4 will occur on the site, and therefore Section 323.4 is not applicable.

#### *Site Description*

The comment states that there was a failure to describe the existing conditions on the site. As discussed further below under Response to Late Comment BIO-2, the SEIR, including the Initial Study provided a detailed description of the existing conditions, the vegetation present, and the potential for sensitive wildlife to utilize the site. All existing biological resources on the site were clearly described and, mitigation, where appropriate, was identified. Regardless of the position taken by the commenter, there was no failure on the part of OCII to properly disclose information in regards to the existing conditions on the project site.

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### **Issues Raised by Late Commenters on Biological Resources Setting**

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-39

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### **ECOLOGICAL CONDITIONS RESPONSE REVIEW SECTION 13.19 BIOLOGICAL RESOURCES**

#### **Response BIO-2: Setting**

The response states, “The commenters’ observations and review of ecological conditions are noted and are not inconsistent with the setting information presented in the Initial Study.” (p. 13.19-11)



This assertion attempts to state that our prior analysis of the Project setting was correct, but still somehow incorrect. There is an open water body feature in the middle of the site that meets both state and federal wetland multi-parameter criteria, yet according to the Response this doesn't need to be fully described in the environmental setting or identified in the Project Description. This error in failing to provide and maintain an accurate site setting and its description continues through the analysis, and also within the findings:

"Portions of the site are unutilized, including a depressed area (measuring approximately 320 feet by 280 feet) created by an excavation and backfill associated with a prior environmental cleanup on the site." (COMMISSION ON COMMUNITY INVESTMENT AND INFRASTRUCTURE RESOLUTION NO. 70-2015, Adopting Finding 2. Project Site, no page numbers.)

The "depressed area" is also filled with water, that water is maintained permanently, and had to have a trench cut to it in order to drain the surrounding self-maintained wetland features. (See BSK prior comments, and BSK Wetland Delineation.) Furthermore, buried within the Response, there is a simplified description of the setting that includes the pond that is much more accurate than the Project Description, yet even that description still fails to identify its wetland characteristics. The effect of this continuing error in defining the environmental setting as it relates to wetlands, listed species and the habitats, is that the project impacts on the environment for the wetland and water features and their associated habitats are not disclosed in a manner that are either accurately identified or the project mitigated in any substantive way.

For example, several thousand pages within the Response document it more clearly identifies that there is water in the "excavation" and it functions as habitat: "The aquatic habitat on the project site consists of an isolated ponded excavation less than an acre in size created by past soil remediation activities." and "Limited opportunities for colonization by either California red-legged frog or western pond turtle since soil remediation of the site was conducted in 2005 means that the likelihood for these species to be present are slim given the extent of development in the project vicinity and absence of nearby occupied habitat from which individuals could disperse to the project site." (p. 13.19-14)

The description of the environmental setting is inaccurate, it fails to identify that there are wetland features and aquatic habitat, and the public and certifiers would have no idea that these wetland features and habitat existed unless they poured through several thousand pages of contradictory descriptions. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-39]*)

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## Response to Late Comment BIO-2: Biological Resources Setting

The commenter appears to be repeating his reference to page 3-10 of the Draft SEIR, which describes the proposed "Project Site and Existing Uses" within Chapter 3, Project Description. As described in the Draft SEIR, Chapter 3 is not the "sole description of the site as it relates to its biological resources." The response to the commenter's previous comment in the RTC document explained the discussion of the site's biological resources, including: "A complete description of the project setting in the context of biological resources (e.g., the vegetation communities and wildlife habitat within and surrounding the project) is included in Impact BI-1 of the Initial Study (pp. 77 to 79). Impact BI-3 (Initial Study, pp. 79 to 80) expands on the discussion of the deeper excavation at the site, including vegetation. Impact BI-4 (Initial Study, pp. 81 to 82) includes additional discussion regarding wildlife habitat and use at the site. Appendix A of the Initial Study lists the special-status species reported or with potential to occur near the project site. Thus, the Initial Study provides an accurate



description of the existing setting regarding biological resources. (RTC Response BIO-2: Setting, pp. 13.19-11 to 13.19-12.)

Also, as previously stated, subsequent visits to the proposed project site by project consultants, following publication of the Draft SEIR confirm conditions as described in the Initial Study. Additionally, the description of the site by BKS does not present any information that is inconsistent with the description presented in the Initial Study and Draft SEIR.

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### Issues Raised by Late Commenters on Special-status Species and Sensitive Natural Communities

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-40      O-MBA20L7-46

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#### Response BIO-3: Special-Status Species and BIO-4: Sensitive Natural Communities

The Special-Status Response indicates that the provided multiple reconnaissance-level surveys are essentially equivalent to a protocol-level survey for attempting to identify that listed species do not occupy the site. This assertion is simply incorrect, as described by the very citations provided by BSK and the Response itself, and the provided analysis is replete with technical inconsistencies that again do not demonstrate the absence of listed species (WRA 2015<sup>1</sup>). This analysis is discussed in detail in the following section. The Sensitive Natural Communities response and its supporting analysis present a mischaracterization of the potential project impacts to listed species, the steelhead. No allegation was made by us that the interior of the site was suitable or subject to use by steelhead. Conversely, Critical Habitat which was not identified in the DSEIR, is now identified in the Response, but its ecological dimensions are mischaracterized.

The potential use of the site by other listed species was exclusive to as the California red-legged frog ([CRLF] *Rana draytonii*) and steelhead trout (*Oncorhynchus mykiss*). The report specifically does not assess the potential for use of the site by the western pond turtle (WPT). Therefore the Response mischaracterizes the study.

#### Site Surveys

The report does not provide the credentials and experience of the WRA wildlife biologist Claire Woolf, so it is impossible to ascertain the qualifications of this person. The report does not cite the use of the any survey methods or protocols, other than the site was 'traversed' on foot. For illustration, even the screening-level biological assessment of a site like this typically follows a variable intensity vehicular (to screen for sensitive bird species) and pedestrian survey to identify rare plants, to flush hidden and more secretive species and identify tracks, scat and burrows. In addition, even if the methods had been described, and protocols had been followed, the survey dates did not appropriately span the correct periods to assess for the (local) listed plant species.

Regardless, the efforts that have gone into this series of screening-levels surveys could have been protocol-level surveys completed by experts to definitively assess the site use by listed species. Protocol-level surveys are the only means by which a biological scientist can assert a negative species finding (absence). The protocol for floristic surveys, even if they had been completed, is clear: "a single field season does not constitute evidence(.)" (CDFG 2009; See Table 2 Special-Status



Animal Species Reported or With Potential to Occur Near the Event Center and Mixed-Use Development Area at Mission Bay Blocks 29-32. P 13.19-15).

For example, USFWS 2005 Survey Guidance for the CRLF was simply not followed. In cases where protocol-level surveys are unavailable, focused species-specific surveys (not to be confused with a focused survey that only looks for CNDDDB listed species) by experts are the appropriate methodological approach. There is no evidence that this approach was followed either.

The report is silent on any aquatic species use, and on observations (or the absence of observations) for the CRLF and WPT. For example, a qualified biologist completing a survey for CRLF would have identified that there were, or were not, eggs, egg masses, tadpoles, or frogs visible; and, similarly, provide specific identification of the presence or absence of tracks/drag marks at/near basking locations for the WPT. The report is entirely silent on the aquatic community, which should have included the presence or absence of small fish, macroinvertebrates (aquatic insects), various worm species, and other prey sources. These are just a few of the types of observations that should have been made and why a follow-on species specific survey is different from a reconnaissance-level survey, and, why this precise approach was requested in our original analysis and comments.

It appears that the analysis uses protocol-level survey citations as inferential indications that these methods were applied, where they have not. The Response to Comments reiterates in the footnotes our earlier list of protocols and focused survey citations (See BSK 2015), yet again fails to apply these to the project as requested: California Native Plant Society (CNPS), 2014. Inventory of Rare and Endangered Plants (online edition, v8-02). Sacramento, California. <http://www.cnps.org/cnps/rareplants/inventory/> (accessed September 10, 2014). CDFG, 2009. Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities. California Natural Resources Agency. November 24. USFWS, 2005. Revised Guidance on Site Assessments and Field Surveys for California Red-legged Frog.

For example, following the above cited protocol explains both why wetlands are special status natural communities and how to survey for special status plants [CDFG 2009]:

“Most types of wetlands and riparian communities are considered special status natural communities due to their limited distribution in California. These natural communities often contain special status plants such as those described above. These protocols may be used in conjunction with protocols formulated by other agencies, for example, those developed by the U.S. Army Corps of Engineers to delineate jurisdictional wetlands or by the U.S. Fish and Wildlife Service to survey for the presence of special status plants.”

Furthermore, the survey protocol specifies:

“It is appropriate to conduct a botanical field survey when:

Natural (or *naturalized*) vegetation occurs on the site, and it is unknown if special status plant species or natural communities occur on the site, and the project has the potential for direct or indirect effects on vegetation; or(.)” (*Emphasis added for clarity.*)

Yet, there is no evidence in the record that this special-status plant botanical survey was ever completed. The provided screening level effort only apparently reviewed the California Natural Diversity Database (CNDDDB). Despite the admonition by the protocols, and the CNDDDB’s user agreement, that the use of the CNDDDB is neither a substitute for a careful technical approach or all inclusive. For example, per the cited protocol, “every plant taxon that occurs on site is identified to the taxonomic level necessary to determine rarity and listing status.” This was not completed, or if it was it, was not provided. These comments are simply provided for brief illustration, as it does not appear that the biologist intended to assert that the survey was anything more than a reconnaissance, as noted in the title. In any case the provided study and the CEQA analysis are not sufficient to determine the absence of the identified listed species and of assessing the potential environmental impacts on listed species.



## Fisheries

For fisheries, the Response and the analyses mischaracterize the site and the designated Critical Habitat. The WRA report states that: “[the pond] is not conducive to the survival of steelhead due to elevated temperatures and low oxygen conditions evident by the dominance of filamentous algae in the depression. Steelhead would not be able to survive conditions such as those present in the depression.” While those impressions are self-evident for steelhead trout, which are sensitive to environmental factors (and were never asserted by BSK to use the pond in the first place), the report makes no mention of the measurement of temperature or dissolved oxygen (DO) and neither of these can be visually estimated. Measurement of temperature and DO are easily and commonly accomplished in the field.

The Response, however, conflates these ad hoc field observations for trout with all other “aquatic species.” The pond is not clearly suitable habitat for trout. However, there are aquatic plant species within the pond, and likely several other organisms, do use the ponds but those observations were not reported. Instead, the analysis in the Response makes a claim from literature: “Algae blooms occupy the entirety of ponded water within the depression. Such conditions can result in low dissolved oxygen concentration that is inhospitable and even lethal to aquatic organisms.” (p. 13.19-14) There are many kinds of algae, some are toxic, but most are not. However, the field work does not identify which algae occupy the pond, the DO concentration or temperature.

## Critical Habitat

The Responses’ second fisheries analysis goes on at length that aquatic Critical Habitat does not include the terrestrial portions of the site, and implies in one case and then contradicts itself later that the Bay bordering the site is also not steelhead Critical Habitat. The physical area described in the analysis as “excluded” is the surrounding watershed proper and not the Bay, which is unambiguously Critical Habitat and specifically the habitat which could be harmed by the project, as described in our original analysis (ESA<sup>2</sup>). There are Bays within the steelhead Critical Habitat analysis that have been specifically excluded, such as Suisun, but the *provided* analysis is simply incorrect for *San Francisco Bay*. See the analysis’ cited NMFS letter: “Critical habitat was designated for CCC steelhead on September 2, 2005 (70 FR 52488) and includes PCEs essential for the conservation of CCC steelhead. Critical habitat in estuaries is defined by the perimeter of the waterbody as displayed on standard 1:24,000 scale topographic maps or the elevation of extreme high water, whichever is greater.” (p. 28) The Bay is suitable and occupied habitat for steelhead “Steelhead of this size can withstand higher salinities than smaller fish (McCormick 1994), and are more likely to occur for longer periods in tidally influenced estuaries, such as San Francisco Bay.” (p. 25)

Indeed the analysis identifies a single selection from the life history and impact analysis of the NMFS letter, ignoring the numerous other passages that describe potential migratory exposure to the site, **while** singularly failing to mention that one of the reasons for listing critical habitat is because habitat quality in the Bay had been impacted by projects such as the proposed arena: “Habitat degradation in the action area is primarily due to altered and diminished freshwater inflow, shoreline development, shoreline stabilization, non-native invasive species, discharge and accumulation of contaminants,” (pgs. 37-39 and 40 respectively.)

There are the very same impacts that we have pointed out related directly to both the site-specific risk of contaminants degrading Critical Habitat, as well as clear cumulative effects from the project:

“The San Mateo HU is located on the coast immediately south of the Golden Gate Bridge and includes several small creeks including San Gregorio and Pescadero Creeks.” “The Team concluded that these occupied areas contained one or more PCEs (i.e., spawning, rearing, or migratory habitat) for this ESU and identified management activities that may affect the PCEs, including agriculture, agricultural and non-agricultural water withdrawals, urbanization, non-hydro dams, and road building and maintenance.”

The issue of the Critical Habitat designation, within the Bay is clear:



“We now conclude that it is possible to delineate some estuarine areas in California (e.g., the San Francisco-San Pablo-Suisun Bay complex, Humboldt Bay, and Morro Bay) that are occupied and contain essential habitat features that may require special management considerations or protection. Such estuarine areas are crucial for juvenile salmonids, given their multiple functions as areas for rearing/feeding, freshwater-saltwater acclimation, and migration (Simenstad *et al.*, 1982; Marriott *et al.* 2002). In many areas, especially the San Francisco Bay estuary, these habitats are occupied by multiple ESUs. Accordingly, we are proposing to designate specific occupied estuarine areas as defined by a line connecting the furthest land points at the estuary mouth.”

The Response analysis cites a letter from the National Oceanographic Atmospheric Administration - National Marine Fisheries Service (NOAA-NMFS) in an attempt to diminish the perception of the possible exposure of the fish to the site, by stating that the population splits its migration mainly to the north of the site, when instead it provides a perfect illustration of the sort of trustee agency review that should be considered for the project’s impacts on the estuary’s environment, *a concurrence letter which the applicant has failed to secure.* (p. 13.19-21) This is the sort of biological analysis (Biological Assessment) and concurrence letter that the project *should get* to establish its potential impacts on a listed fish and its designated Critical Habitat. The Response fails to identify that the applicant or Lead Agency can simply request this concurrence from the federal fishery agencies and thus settle this issue.

The analysis attempts to imply that somehow the listed steelhead trout, and its habitat, is somehow not germane by the proposed site development. This is despite its identification by NOAA-NMFS as using for foraging and migration, these waters having been federally designated Critical Habitat, and the listing and designation as a result of its population decline by exposure to development and toxics.

This logical hand waving is a result of the project’s failure to even identify that it was adjacent to occupied critical habitat (see BSK’s prior comments.) Instead, the cited analysis by ESA, now attempts to conflate the spawning habitat of the designated stream critical habitat with the project site. (ESA 2015)

For example: “San Mateo Bayside HSA...was excluded from designated critical habitat for Central California Coastal steelhead DPS.” The analysis states that its conclusion “is further supported” by the finding that the San Mateo Bayside HSA was excluded, as if there was any relevance to that fact. We concur that the conditions of those blocks are not suitable for steelhead, they are unlikely to have occupied that site after Mission Bay was completely filled in, do not currently live on those blocks, and are unlikely to occupy the site until sea level rise/and or the predicted tsunami elevations are reached (see also BSK comments).

Nowhere has anyone attempted to state or otherwise imply that somehow the Mission Bay Blocks 29-32 are a migratory fish passage, are access to a spawning stream, or are an isolated lake capable of holding an steelhead Evolutionary Significant Unit. However, clearly, and without ambiguity, the site is adjacent to, and influences both directly and indirectly, designated, occupied, critical habitat. Also that, NOAA-NMFS has clearly identified that they migrate and occupy adjacent to the site in the San Francisco Bay/Estuary.

The analysis required to demonstrate the nature and the extent of the project’s impacts to the aquatic environment and on listed fish populations under CEQA (IV Biological Resources, a) and their critical habitat (IV Biological Resources, f), has not been completed. We understand that there remain significant impacts, and that the project should complete a Biological Assessment and submit this to the NOAA-NMFS and the California Department of Fish and Wildlife as a part of its analysis to either demonstrate that it has no significant impacts, or that it has impacts and has provided suitable mitigation, or made a finding of significant and unavoidable impact.

#### **Sensitive Natural Communities**

Similarly, the Response fails to adequately even define the Sensitive Natural Community at the site, completely ignoring the emergent wetland which was specifically identified by its own consultants (ESA 2014), as well as our prior analysis assessing Sensitive Natural Communities. Please note that



there is limited Response provided for the whole list of BSK-identified communities, but focusing on just one:

“California identifies one of these habitat types as sensitive: *Bulboschoenus maritimus* (Salt marsh bulrush marshes) Alliance, status S3<sup>3</sup> (S3 = Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.)” (BSK initial comments on the DSEIR.)

The Response states that the site does not qualify due to a lack of density of *Bulboschoenus maritimus* by simply asserting that the density is not enough, without any supporting analysis and then goes on to say that regardless, there is plenty of that particular Sensitive Natural Community in the Bay.

The Response does finally acknowledge that ruderal sites can be habitat for rare plants, but its study fails to follow the rare plant protocol identified in its own citations. (See CNPS And CDFG.) In fact, no evidence of the qualifications of the surveyor and experience with the listed rare plants is provided. Furthermore, the Response provided a specific rebuttal to its own prior comments that ruderal and impacted sites might not have rare plants. (p. 13.19-19) Indeed rare plants can be found in many settings that are not the historic, pre-urbanization ideal condition, which the Response even specifically identifies for one of the species in question, Franciscan manzanita (*Arctostaphylos franciscana*). This species was at a previously unidentified location within freeway median. Yet, even this finding of a rare plant in an unlikely, highly disturbed location is apparently not a cautionary discovery and the Response sees no need for an appropriate survey. By refusing to complete the proper, definitive surveys, and by ignoring documented Sensitive Natural Communities, the project has impacts that remain unanalyzed and thus unmitigated.

**Footnotes:**

- <sup>1</sup> [http://www.gsweventcenter.com/GSW\\_RTC\\_References/2015\\_1001\\_WRA.pdf](http://www.gsweventcenter.com/GSW_RTC_References/2015_1001_WRA.pdf)
- <sup>2</sup> [http://www.gsweventcenter.com/GSW\\_RTC\\_References/2012\\_1001\\_ESA.pdf](http://www.gsweventcenter.com/GSW_RTC_References/2012_1001_ESA.pdf)
- <sup>3</sup> <https://www.dfg.ca.gov/biogeodata/vegcamp/pdfs/natcomlist.pdf>

(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-40])

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Finally, there needs to be a full protocol-level survey for the listed plants, including San Francisco manzanita (*Arctostaphylos franciscana*) during the appropriate season, to make an identification of the site's plants by an qualified botanist with field experience in the identification of that and other local listed species. If special-status species are identified at the site a Worker Environmental Awareness Plan should be put into effect. (Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-46])

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### Response to Late Comment BIO-3: Special-status Species and Sensitive Natural Communities

With regard to site surveys, the commenter appears to assert that every site, no matter its condition or history, demands that protocol-level surveys be conducted to determine whether special status species are present. That is not correct. In the case of the proposed project site, reconnaissance level surveys were performed to assess the presence of habitat and its suitability or potential to support special status species. The Draft SEIR does not assert that reconnaissance surveys are equivalent, essentially or otherwise, to protocol-level surveys. Responses BIO-3 and BIO-4 in the RTC document provide an explanation of the process by which the project site and its potential to support any of the special status species



were assessed. Following industry-standard procedures for evaluating the regional context and site-specific conditions, qualified biologist concluded that suitable habitat for special status species is not present on the site and that site-specific conditions are biologically limited. Protocol-level surveys are not necessary to support this conclusion, nor are they warranted given the condition of the site. (*Association of Irrigated Residents v. County of Madera* (2003) 107 Cal.App. 4th 1383, 1396-1398 [rejecting petitioner's argument that a lead agency was required to conduct a protocol-level survey].) The commenter provides no additional supporting evidence or mechanism by which special status species, particularly aquatic or amphibian species, could occupy the water-filled depression, given the origins and history of the feature. Therefore, OCII continues to disagree with the commenter that the proposed project site has potential to support special status species, or that additional surveys are warranted.

With regard to fisheries, OCII agrees with the commenter that the unsuitability of the depression to support steelhead is self-evident. For this reason, measurements of temperature or dissolved oxygen (DO) are not warranted, regardless of how easy or commonplace they are.

Regarding critical habitat, the RTC Response BIO-4 (pp. 13.19-19 to 13.19-22) and RTC Response HYD-2 (pp. 13.21.-9 to 13.21-14) addressed previously raised comments asserting potential contaminants in runoff from the site to adversely affect steelhead critical habitat. As explained in those responses, there is no evidence that the proposed project would result in such impacts. The commenter does not provide any new evidence that would change the conclusion. In addition, RTC Response BIO-4 responded to the commenter's concerns about the possibility of effects of the proposed project on designated critical habitat for steelhead. OCII disagrees with the commenter's position that the proposed project could have an effect on critical habitat for steelhead; as explained in previous responses in the RTC Document, the project, which is not located in the Bay or directly on its shoreline, would not have any effect on critical habitat through any means. Further, as stated in the RTC Response BIO-4, "The proposed project site at Mission Bay Blocks 29-32 falls within the San Mateo Bayside HSA, which, as part of the 2005 determination (70 FR 52488; September 2, 2005), *was excluded* from designated critical habitat for Central California Coastal steelhead DPS." (emphasis added). For these reasons, consultation with the National Marine Fisheries Service is not necessary for the purpose of complying with CEQA.

With regard to the comments on sensitive natural communities, OCII, in consultation with its biological resources consultants, disagrees with this characterization of vegetation in the water-filled depression as a sensitive natural community. The RTC Response BIO-5 (pp. 13.19-37 to 13.19-38) responded to this comment: "The comment's characterization of the excavations on site as salt marsh bulrush marsh is inaccurate. As described in Sawyer, Keeler-Wolf, and Evans (2008) salt marsh bulrush marsh consists of communities dominated (>50% relative cover) by salt marsh bulrush (*Bolboschoenus maritimus*) located in seasonally flooded mudflats and tidal brackish marshes. Salt grass (*Distichlis spicata*) and brass buttons (*Cotula coronopifolia*) are by far the dominant species present in the excavations, and therefore the vegetation



community present is better characterized as the *Distichlis spicata* herbaceous alliance, which is listed as an S4, and not considered to be limited in distribution and abundance within the State. Additionally, this vegetation community is regionally abundant both in areas connected to the San Francisco Bay and in areas disconnected from the Bay.”

The Draft SEIR/Initial Study, as augmented by RTC document Section 13.19, also provides the basis for the conclusion that the proposed project site does not provide habitat for special status plant species, which is based on background research, site evaluation and lack of suitable habitat for plant species with geographic or historic potential to occur.

Comment O-MBA20L7-46 asserts there should be full protocol-level surveys for the listed plants. OCII, in consultation with its biological resources consultants, has determined that protocol-level surveys for listed plants are not warranted, based on the foregoing explanation of how a lack of suitable habitat exists on the site. In particular, as explained in RTC Response BIO-4 (pp. 13.19-19 to 13.19-20), the specifics of soils and geology that are fundamental to the occurrence of Franciscan manzanita (*Arctostaphylos franciscana*) are absent from the site. Furthermore, it would be plainly evident to any qualified biologist conducting a reconnaissance survey of the proposed project site whether a perennial shrub meeting the particular and recognizable characteristics of any manzanita were present on the site. Having eliminated this possibility through such surveys, no further surveys are warranted.

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### Issues Raised by Late Commenters on Avian Impacts

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-42      O-MBA20L7-45

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#### Response BIO-6: Avian Impact

Foraging habitat losses are dismissed out of hand, despite various consultant’s bird observations, and a specific assessment of available replacement habitat provided by BSK in its comments. (p. 13.19-30, 13.19-47 and 48) Then the Response analysis goes on to identify that replacement habitat is going to be made available by the project: “...while not included under the project purview, the adjacent, planned Bayfront Park will likely include landscaped and natural areas that offer similar or improved foraging and cover opportunities for local birds that would offset any perceived habitat loss associated with the proposed project development.” It appears that despite its protestations, the Project is attempting to mitigate for its impacts without disclosing the impact, thresholds, and the details of the relevant Mitigation and Monitoring. (p. 13.19-38 and 13.19-47 and 48)

Incremental, cumulative impacts to wetlands, foraging, and nesting habitat are exactly why CEQA has a cumulatively considerable analysis in order to identify and mitigate these losses. Even then, where the project identifies it could directly kill birds through its construction impacts, it still gets that mitigation wrong for ground nesting birds. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-42]*)

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The sole mitigation for the loss of the water and wetlands, habitat and Biological Resources, is as follows: (Initial Study Section E13)

M-BI-4a: Preconstruction Surveys for Nesting Birds To the extent practicable, vegetation removal and grading of the site in advance of new site construction shall be performed between September 1 and January 31 in order to avoid breeding and nesting season for birds. If these activities cannot be performed during this period, a preconstruction survey of **onsite vegetation** for nesting birds shall be conducted by a qualified biologist. (Emphasis added.)

Onsite vegetation is an inappropriate and overly narrow distinction. Birds nest on the ground as well as in shrubs and grasses, including species such as the previously identified juvenile killdeer (*Charadrius vociferous*) and Canada geese (*Branta canadensis*) which were observed at the site. Even the prior Response Section identifies that all birds nesting at the site should be protected from construction impacts: "Potential impacts to urban birds protected under the Migratory Bird Treaty Act and nesting in the excavations or vegetation within the entirety of project site are mitigated by implementation of Mitigation Measure M-BI-4a (Preconstruction Surveys for Nesting Birds), as discussed in the Initial Study for non-special-status wildlife. (See Initial Study, pp. 81-83.)" (p. 13.19-37) Although it also fails to identify the unvegetated, non-excavated areas, which comprise the majority of the site. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-45]*)

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#### Response to Late Comment BIO-4: Avian Impacts

The commenter states that the wording of Mitigation Measure M-BI-4a is "overly narrow" with respect to appropriate pre-construction survey for nesting birds. OCII disagrees. The comment mischaracterizes the mitigation measure. The commenter's interpretation of the mitigation measure is inconsistent with the intent of the measure and would not be applied by a qualified biologist conducting the preconstruction surveys. The reference to "onsite vegetation" does not mean that only nests within vegetation must be considered. The existing site conditions consists of two paved parking lots in the north and west portions of the site and the remainder of the site consists of an undeveloped ruderal lot. A qualified biologist conducting preconstruction surveys would surveys all areas where nesting could occur onsite, including areas of the site where ground nesting birds might nest such as slight topographical depressions, as part of standard professional practice.

The SIER does not attempt to mitigate impacts to bird species by noting that Bayfront Park will provide foraging and cover opportunities for local birds. As explained in the SEIR and RTC Document, the project would not have a significant impact on habitat for bird species, and therefore no mitigation is required. The RTC Document notes that the bird species observed foraging onsite are common to San Francisco and would continue to be supported by vegetation communities and water features in the project vicinity, including foraging and cover opportunities at Bayfront Park. (RTC Document, pp. 13.19-38; 13.19-47 to 13.19-48.)

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## SECTION 16: RESPONSES TO LATE COMMENTS ON GEOLOGY

The comments and corresponding responses in this section cover topics analyzed in the Initial Study, Section E.14, Geology and Soils, which is included in Appendix NOP-IS of the SEIR, as augmented in RTC document Section 13.20. These include topics related to:

- Issue GEO -1: Geology Approach to Analysis, Tiering
- Issue GEO-2: Reliance on Building Code Requirements and Emergency Response

### Issues Raised by Late Commenters on Geology Approach to Analysis, Tiering

This response addresses all or part of the following comments, which are quoted below:

O-MBA16S6-6

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#### 6. Geology and Soils

According to the FSEIR, all the concerns raised by the public can be addressed in the future by application of regulatory requirements. Furthermore, the FSEIR explains that design detail can be developed after certification of an EIR. Taking the theory advanced in the FSEIR to its logical conclusion, it would appear unnecessary to analyze impacts related to Geology and Soils at all.<sup>1</sup> This begs the question of what the purpose of an EIR, which is to:

Identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.

(Pub. Resources Code, § 21002.1, subd. (a).) The implementing CEQA Guidelines then describe how an EIR should consider and discuss significant impacts of a project. (CEQA Guidelines, § 15162.) To assist in that process, the Office of Planning and Research has also provided a sample checklist in CEQA Guidelines Appendix G for Geology and Soils, among other impacts.

The 1998 SEIR did include a detailed analysis of then-existing conditions and then-existing standards as they applied to the land uses contemplated in the Mission Bay Plan area. As explained elsewhere, the 1998 SEIR did not analyze any development such as the Arena and Entertainment Center. Comments on the current DSEIR explain that the currently proposed use is completely different than the previously contemplated uses for the site. Additionally, standards regarding seismic safety and construction methodology have changed since 1998. Last, the actual conditions on the site have changed, as large quantities of contaminated soil were removed from the site, and 80,000 cubic yards of other (apparently also contaminated) materials were backfilled into the site from elsewhere in Mission Bay.

According to the City's interpretation of CEQA, all of these details can be addressed after certification of the EIR. This approach, however, skips over the analysis and mitigation process that is essential to the EIR process. In this case, that process occurred in 1990 and 1998, and as essentially accepted in the FSEIR, the applicable standards are very different now as compared to at that time. Relying on this outdated analysis, as updated by numerous documents prepared outside of the public review process and outside the current SFEIR fails to meet the informational purposes of CEQA. While tiering is permissible in certain circumstances, its use in these circumstances defeats the public information purposes of CEQA.

Though it did not specifically address the same tiering issues as are present here, the California Supreme Court's opinion in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 443 is instructive:

The audience to whom an EIR must communicate is not the reviewing court but the public and the government officials deciding on the project. That a party's briefs to the court may explain or supplement matters that are obscure or incomplete in the EIR, for example, is irrelevant,



because the public and decision makers did not have the briefs available at the time the project was reviewed and approved. The question is therefore not whether the project's significant environmental effects can be clearly explained, but whether they were.

Here, the analyses in the 1990 and 1998 are no longer pertinent. The City admits that none of the mitigation measures developed during that time even apply now. Subsequent brief descriptions in the IS/NOP also fail to characterize the full nature and extent of the seismic and other hazards that will result from construction of the Project. Now, the FSEIR includes yet additional analysis and information regarding how impacts related to Geology and Soils will be addressed later through regulatory processes alone. This review process does not clearly explain the effects of the Project to the public.<sup>2</sup>

In addition to this overarching flaw in the City's approach to analyzing impacts related to Geology and Soils, BSK Associates has also prepared a technical memorandum responding to several of the responses provided in the FSEIR concerning Geology and Soils and related Hydrological impacts from tsunami and sea level rise risks. (BSK Geology Report attached as Exhibit 2.) This additional information further demonstrates the need to prepare a stand-alone, publicly comprehensible analysis of these environmental impacts prior to making any decision about the Project.

In summary, the information submitted by the Alliance constitutes substantial evidence of a fair argument that the Project will have a significant adverse Geology and Soils impacts. In the alternative, per CEQA section 21166 and CEQA Guidelines section 15162, the facts described above constitute a change in circumstances since the 1998 SEIR involving, and significant new information showing, a new significant effect not previously analyzed in the 1998 SEIR. Under either standard, the City must prepare and circulate for public comment an environmental impact report to review the Project's impacts concerning geology and soils.

**Footnote:**

<sup>1</sup> Indeed, there have been efforts to alter CEQA so that there would be no need to analyze an impact at all if there was an applicable regulatory standard. This "standards-based" approach to CEQA "reform" was abandoned after one of its main champions, former Senator Michael Rubio, resigned from the Legislature to take a government-affairs job with Chevron in early 2013.

<sup>2</sup> This same deficiency applies to all of the resource areas for which there was no new analysis in the DSEIR.

*(Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-6])*

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### Response to Late Comment GEO-1: Approach to Analysis, Tiering

The commenter states that the approach reflected in the Final SEIR improperly allows for the development of design details after certification of the EIR. This approach, according to the commenter, would obviate the need for any analysis of the project's impacts on geology and soils.

OCII disagrees. The Final SEIR does not ignore impacts related to geology and soils. The Initial Study / Notice of Preparation (IS/NOP) explains why these impacts were adequately addressed in the 1990 and 1998 Program EIRs. (IS/NOP, pp. 84-93.) OCII did not receive comments on the IS/NOP's discussion of geology and soils during the scoping period following distribution of the IS/NOP. OCII did receive comments on geology and soils in letters submitted on the Draft SEIR. The Final SEIR includes these comments, as well as OCII's responses. (See Final SEIR, Chapter 13.20.)

The IS/NOP and the responses to comments explain the building codes and regulatory requirements with which building designs must comply. Under CEQA, the EIR must



contain sufficient information to enable the lead agency to determine whether the project's impacts will be significant. The development of final building or structural designs is not required in order to provide this level of information. (See *Oakland Heritage Alliance v. City of Oakland* (2011) 195 Cal.App.4th 884, 910 [application of seismic codes sufficient to address geologic hazards in seismically active area where office buildings would be located]; *City of Maywood v. Los Angeles Unified School Dist.* (2012) 208 Cal.App.4th 362, 411-412 [compliance with regulatory standards as adequately addressing hazardous materials at school site]; *Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 25-28 [final design of diversion structures not required]; *California Oak Foundation v. Regents of the University of California* (2010) 188 Cal.App.4th 227, pp. 269-271 [rejecting claim that project description was too vague because description included sufficient information to assess whether impacts would be significant].)

The commenter states that the proposed event center is a different use than the use that was anticipated and analyzed in the 1990 and 1998 Program EIRs. The IS/NOP analyzed the proposed project's impacts in each resource area to determine whether the proposed project would result in impacts that were not analyzed in the 1990 and 1998 Program EIRs. The IS/NOP thus served to focus the analysis in the Draft SEIR on those resource areas where further analysis would be appropriate. OCII did not receive comments on the IS/NOP asking OCII to broaden the scope of its analysis to address geology and soils. The Draft SEIR analyzed in detail the following resource areas: plans and policies; transportation; noise and vibration; air quality; greenhouse gas emissions; wind and shadow; utilities and service systems; public services; hydrology and water quality; growth inducing impacts; and alternatives. After OCII circulated the Draft SEIR for public review and comment, OCII received comments requesting further analysis of additional resource areas, including (for example) geology and soils. The Final SEIR provides detailed responses to these comments.

The commenter cites two events that have occurred since 1998 that warrant further analysis: (1) different seismic standards, and (2) the excavation of contaminated soil and import of other soil.

- (1) Seismic safety standards have changed since 1998. Those changes include standards applicable to uses that involve public assemblies. This issue is discussed at length in RTC Section 13.20.2. This response identifies the seismic standards with which the event center and other building plans must comply. Compliance with these standards will be determined by the San Francisco Department of Building Inspection based on a site-specific geotechnical evaluation. Compliance with these requirements will ensure that seismic hazards are addressed. This process has been in place in the Mission Bay Plan area since its inception. For additional information on geologic hazards, including seismicity, please see Response to Late Comment GEO-2 in Section 16 of this Exhibit D.
- (2) Contaminated soils are present on the site. Some of the contaminated soils on the site are present due to backfilling that occurred after 1998. This issue is discussed in RTC Section 13.22.4. The applicant has performed a Phase II investigation that characterizes the presence of hazardous materials at the site. This information is considered sufficient for purposes of addressing whether impacts associated with contaminated soils are



significant under CEQA. Compliance with the Mission Bay Risk Management Plan and Article 22A of the San Francisco Health Code (Maher Ordinance) will avoid potential impacts associated with the presence of hazardous materials at the site. The applicant has submitted a Site Mitigation Plan and a Dust Monitoring Plan to demonstrate how the site will be managed to avoid significant impacts associated with the presence of hazardous materials. The City Health Department has reviewed and approved these plans in compliance with Article 22A. For additional information, please see Response to Late Comment HAZ-1 in Section 18 of this Exhibit D.

The commenter states the Final SEIR does not provide sufficient information to meet the requirements set forth in the California Supreme Court's decision in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412. In that case, the Court criticized the respondent agency for piecing together information in the agency's briefs filed with the court in an effort to plug informational gaps in the agency's record.

In this case, by contrast, the information on geology and soils does not appear in briefs filed by OCII. Rather, that information appears in the 1990 and 1998 Program EIRs, the IS/NOP, and in responses to comments on the Draft SEIR, all of which are available to the public and to decisionmakers. The SEIR cites the reports and other documents that provide the information upon which this analysis is based. All of these reports and other documents are available in OCII's administrative record, which is posted on the AB 900 web site for the project. Because geology and soils have been addressed in three different EIRs, the "substantial evidence" standard of review (rather than the "fair argument" standard of review cited by the commenter) applies with respect to this analysis. For more information on "tiering" and on OCII's reliance on the 1990 and 1998 Program EIRs, please see Section 3 of this Exhibit D (Issue ERP-2: Tiering).

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### Issues Raised by Late Commenters on Reliance on Building Code Requirements and Emergency Response

This response addresses all or part of the following comments, which are quoted below:

O-MBA16S6-12

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1. Response GE0-1, page 13.20-10 states "The 2014 Langan Treadwell Rollo (LTR) Geotechnical Evaluation provides recommendations regarding foundation and building design in order to comply with applicable codes. These recommendations will be incorporated into the design of the event center and other buildings, including the sub-surface facilities and the designs will be submitted to the DBI for its approval." On page 11 of the 2014 LTR report included the following "The conclusions and recommendations presented herein are preliminary and should not be relied upon for design." Therefore, the 2014 LTR cannot be used for design. Design features which may be required for Geotechnical Engineering purposes, that have not been confirmed may be highly variable and may result in significant environmental impacts. For illustration a design that calls for a deep foundation on drilled piers/piles has dramatically different impacts than a design that uses soil densification or in-situ treatments.



2. Response GEO-1, page 13.20-12 states "Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead and live loads. Therefore, structures designed in accordance with the San Francisco Building Code are designed to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage." This statement is not correct and does not apply to sites, such as Mission Bay Blocks 29-32, that are located on soft soils or liquefiable soils. Seismic response of structures located on soft or liquefiable soils is non-linear and requires a site specific seismic response analysis (See ASCE 7-10, Section 20.3.1).
3. Numerous responses throughout Section 13.20, presented local and state building code requirements as mitigation measures for various geologic hazards that are present at the site. This approach of utilizing design level mitigation that will be prepared at a later date, may be a valid method for a simple project located on stiff soils where changes in design have minor impact. The proposed structure is highly complex, with problematic subsurface conditions that will require significant ground modifications that could themselves have potentially significant impacts on the surrounding area. Based on the size and complexity of the structure, the impacts and cumulative impacts need to be determined during the CEQA process such that the impacts of the building methods can be fully evaluated. See #1 for a construction related example that may have variable environmental impacts.
4. GEO-2 page 13.20-18, states "Further, as discussed in more detail in Section 13.22, Hazards and Hazardous Materials, Response HAZ-3, San Francisco emergency response procedures and evacuation routes are addressed in Impact HZ-3 of the Initial Study (pp. 119 through 121). As summarized in that impact analysis, the City has a published Emergency Response Plan dated 2010 and prepared by the Department of Emergency Management subsequent to publication of the 1998 Mission Bay FSEIR as part of the City's Emergency Management Program." Our review of the reference provided, did not disclose any method or actions that the City or County could take or has taken to prevent geohazard impacts, such as liquefaction induced sand boils that may develop along the surface streets surrounding the project. Sand boils that may occur during an earthquake could result in significant settlements that would render the roads unusable for evacuation or emergency response. This issue has not been evaluated and considering that 18,000 people may be trying to evacuate from the area into unusable roads, this is a significant impact that has not been addressed. State and local building codes do not have provisions for evaluating and mitigating liquefaction hazards to may occur under roadways, therefore utilizing building codes during the design phase to address this issue would not be effective.
5. GEO-2 page 13.20-18, states "The required extent of removal and replacement with engineered fill would be determined on the basis of the site-specific geotechnical investigation discussed on p. 87 of the Initial Study and would be conducted in accordance with the Site Permit process described in Response GEO-1." See our response #3 above.
6. GEO-3 pages 13.20-20 to 13.20-21, See our response #3 above.
7. GEO-4 pages 13.20-21 to 13.20-23, See our response #3 above.

*(Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-12])*

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## Response to Late Comment GEO-2: Reliance on Building Code Requirements and Emergency Response

This comment letter has seven individually numbered items, which are addressed as indicated below.



***Reliance on Building Code Requirements (Item Numbers 1 and 2 of Comment Letter)***

The commenter contends that the seismic design provisions of the current San Francisco Building Code referenced in Response GEO-1 of the RTC document (Section 13.20.2) do not apply to sites such as the project site that are located on soft or liquefiable soils. Instead, the commenter indicates that a site specific seismic response analysis is required in accordance with Section 20.3.1 of the American Society of Civil Engineers/Structural Engineering Institute design standard “Minimum Design Loads for Buildings and Other Structures” (ASCE/SEI 7-10). The comment also states that the responses provided in Section 13.20 of the RTC document refer to building code requirements as mitigation measures. In addition, the commenter states that due to the caveats included in the geotechnical evaluation, the preliminary geotechnical evaluation cited in the Initial Study cannot be relied on for project design.

Response GEO-1 of the RTC document (Section 13.20.2) provides information to augment and support the conclusion of the Initial Study that geologic and seismic impacts of the proposed project would be less than significant with compliance with the requirements of the San Francisco Building Code, including completion of a site specific geotechnical investigation (see Impact GE-2, pp. 86 and 87 of the Initial Study). As discussed in RTC Response GEO-1, compliance with all requirements of the San Francisco Building Code is ensured and enforced through the Site Permit process implemented by the San Francisco Department of Building Inspection.<sup>3</sup> Requirements related to assessment of liquefaction hazards, including compliance with the standards specified in ASCE/SEI 7-10, are addressed on pp. 13.20-10 and 13.20-11 of the RTC document. The discussion of Earthquake Design Requirements on p. 13.20-11 further references compliance with Section 20.3.1 of ASCE/SEI 7-10. Response GEO-3, Section 13.20.4 of the RTC document, further clarifies San Francisco Building Code requirements regarding design requirements to alleviate the effects of liquefaction.

Regarding the commenter's concern that the preliminary geotechnical evaluation will be relied upon for project design, the SEIR's use of the information in the preliminary geotechnical evaluation for CEQA review does not imply that the information would be used for detailed project design. As discussed in the Project Description (pp. 3-46 and 3-48 of the SEIR), the proposed structures would be supported on deep foundations utilizing drilled augercast piles; soil improvements are not proposed. The preliminary geotechnical investigation includes a preliminary recommendation that the piles should gain support in underlying competent soils (dense sands or bedrock) and be designed to withstand the anticipated lateral pressures. The environmental effects related to construction of this foundation system are addressed in many environmental topics analyzed in the SEIR, including Noise and Vibration and Geology and Soils. As discussed in Response GEO-1 of the RTC document (Section 13.20.2), the recommendations of the preliminary geotechnical evaluation would be appropriately expanded upon in the site specific geotechnical

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<sup>3</sup> City and County of San Francisco Department of Building Inspection, Administrative Bulletin AB-032, Site Permit Processing. June 4, 2012.



investigation conducted in accordance with Section 1803 of the San Francisco Building Code.<sup>4</sup> This site specific geotechnical investigation would identify geologic hazards and seismic conditions that must be addressed in the project design. The geotechnical recommendations and subsequent design of the foundation and structural systems of the proposed structures would be subject to review and approval by the DBI in accordance with the Site Permit process discussed in Response GEO-1 of the RTC document (Section 13.20.2).

***Building Code Requirements as Mitigation Measures (Item Numbers 3, 5, 6, and 7 of Comment Letter)***

Under CEQA, impacts related to seismic phenomena such as ground shaking and seismically-induced ground failure (including liquefaction, lateral spread, and seismically-induced settlement) would be significant if the project would expose people or structures to potential substantial adverse effects related to these hazards. Compliance with the above requirements that are enforceable through DBI's Site Permit process would ensure that people and structures would not be exposed to such adverse effects. Therefore, the requirements are not mitigation measures, rather they are enforceable and mandatory regulatory requirements that would ensure that significant adverse geologic and seismic impacts are avoided. While the extent of soil excavation could be different than originally anticipated, the potentially adverse geologic effects of soil excavation (including settlement from excavation and construction-related dewatering) would be appropriately addressed by implementation of the recommendations of the site-specific geotechnical report and compliance with the San Francisco Building Code requirements as discussed in Impact GE-3 of the Initial Study (see pp. 88 through 91).

As discussed in Response GEO-1 of the RTC document (Section 13.20.2), numerous CEQA cases support the methodology used in Impacts GE-1 and GE-3 of the Initial Study (pp. 86 through 91) for assessing geologic and seismic impacts. One in particular, *Oakland Heritage Alliance, supra*, 195 Cal.App.4th 884, is worth discussing at length. There, the court upheld an EIR that relied on compliance with existing Building Code requirements in finding seismic impacts would be mitigated to a less-than-significant level. The proposed project consisted of a plan to construct a complex of office buildings in a seismically active area; specific building designs had not been prepared. The EIR included a discussion of Building Code requirements intended to promote structural safety in the event of an earthquake. (*Id.* at pp. 908-909.) The EIR explained that, as part of its investigation of seismic impacts, the developer had conducted a preliminary geotechnical investigation to determine overall engineering feasibility and to inform the preliminary designs. (*Id.* at p. 892.) The EIR required that before the issuance of a building permit for any portion of the project site, the developer would submit a design level investigation for the project that would "be in accordance with applicable City ordinances and policies and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from known active faults." (*Id.* at pp. 890-892.) The court noted that the Building Code and city regulations required investigation and

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<sup>4</sup> City and County of San Francisco Department of Building Inspection, Information Sheet, Geotechnical Report Requirements. May 20, 2015.



recommendations to avoid seismic hazards. (*Ibid.*) The court concluded that compliance with the building code and other regulatory provisions, in conjunction with a geotechnical investigation, provided substantial evidence that the mitigation measures specified in that EIR would reduce seismic impacts to a less than significant level.

In this case, compliance with the San Francisco Building Code requirements and related permit conditions is mandatory. It is therefore reasonable to assume that the proposed project will comply with these requirements. (*Oakland Heritage Alliance v. City of Oakland* (2011) 195 Cal.App.4th 884 [holding it was reasonable for agency to expect that environmental regulations would be followed].) Moreover, although they are not project-specific mitigation measures, these existing regulatory requirements are included in the Mitigation Monitoring and Reporting Program (MMRP) approved by OCII for the proposed project. (See MMRP, pp. 57-58.) These requirements further ensure that these requirements are complied with. (Pub. Resources Code, § 21081.6, subd. (a); *Lincoln Place Tenants Assn. v. City of Los Angeles* (2007) 155 Cal.App.4th 425, 446.)

#### *Emergency Response Procedures (Item Number 4 of Comment Letter)*

The commenter states the City and County of San Francisco (CCSF) Emergency Response Plan does not include any measures to address geohazards such as liquefaction-induced sand boils that may develop along surface streets surrounding the project, making the roads unusable for evacuation and emergency response purposes. Note that the effect of geohazards on city streets is not an impact of the proposed project. While streets in the vicinity of the proposed project could potentially experience some damage in the event of a major earthquake, which could affect access for emergency response vehicles and for evacuation, the City's Emergency Response Plan<sup>5</sup> (dated 2010 and prepared by the Department of Emergency Management subsequent to publication of the 1998 Mission Bay FSEIR) accounts for this. Specifically, the Transportation Annex<sup>6</sup> describes the procedures for assessment, identification of temporary alternative solutions, and restoration of damage to transportation systems, facilities and infrastructure due to an emergency incident. There are numerous streets providing access to the project site, including Terry A. Francois Boulevard, Third Street, 16th Street, and South Street. Therefore alternative access and evacuation routes would be available in the event that one of the major arterials was inaccessible as a result of earthquake damage. Therefore, the project would not result in adverse effects related to emergency evacuation as concluded in Impact HZ-3 of the Initial Study (pp. 119 through 121) and supported by Responses GEO-2 and HAZ-8 of the RTC document (Sections 13.20.3 and 13.22.9).

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<sup>5</sup> San Francisco Department of Emergency Management, City and County of San Francisco Emergency Response Plan, December 2010. Available at: <http://www.sfdem.org/modules/showdocument.aspx?documentid=1455>. Accessed on November 11, 2015.

<sup>6</sup> San Francisco Department of Emergency Management, City and County of San Francisco Emergency Response Plan, ESF#1: Transportation Annex. Available at <http://www.sfdem.org/modules/ShowDocument.aspx?documentid=838>. Accessed on November 11, 2015.



## SECTION 17: RESPONSES TO LATE COMMENTS ON HYDROLOGY AND WATER QUALITY

The comments and corresponding responses in this section cover topics related to hydrology and water quality. These topics are analyzed in the SEIR, Section 5.9 Hydrology and Water Quality as well as in the Initial Study, Section E.15, Hydrology and Water Quality (Appendix NOP-IS of the SEIR), as augmented in RTC document Section 13.21. These include topics related to:

- Issue HYD-1: NPDES Permit Compliance
- Issue HYD-2: Tsunami Risk
- Issue HYD-3: Water Quality of Stormwater Runoff
- Issue HYD-4: Water Quality, Interim Wastewater System Improvements
- Issue HYD-5: Water Quality Regulatory Framework

### Issues Raised by Late Commenters on NPDES Permit Compliance

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-7      O-MBA20L7-36      O-MBA21L8-2      PH2-Lippe-2

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#### **B. The Responses to Comments Hyd-3 - Hyd-6 are Inadequate.**

My July 24, 2015 comment letter regarding hydrology, water quality and biological impacts observed that the DSEIR's heavy reliance on City compliance with its NPDES permit to ensure the Project's combined stormwater and sewage impacts are less than significant is an unsupported assumption. The RTC simply repeats this unsupported assumption many, many times. Some examples follow.

Implementation of these actions in compliance with the requirements of the NPDES permit would ensure that water quality impacts would be less than significant.

(RTC at p. 13.21-17.)

It is reasonable to conclude that compliance with the Bayside NPDES permit would not result in adverse water quality effects because the permit specifies discharge prohibitions, dry-weather effluent limitations, wet-weather effluent performance criteria, and receiving water limitations that are protective of the beneficial uses and associated water quality objectives for San Francisco Bay, the receiving water. Monitoring and reporting requirements to demonstrate compliance with water quality objectives are also specified in the permit.

(RTC at p. 13.18.)

Compliance with these plans, policies, and water quality criteria and objectives as enforced through the Bayside NPDES permit ensures that discharges of treated effluent from the SEWPCP are protective of water quality in San Francisco Bay. Therefore, compliance with the Bayside NPDES permit effluent and receiving water limitations is protective of water quality and it is appropriate to use the requirements of the NPDES permit as a threshold of significance for effluent discharges from the SEWPCP. Using this threshold, the SEIR properly concluded that water quality impacts related to effluent discharges from the SEWPCP are less than significant as described in Impact HYD-6 (pp. 5.9-33 to 5.9-41).

(RTC at p. 13.21-19.)

My previous comment requested that the City support this assumption with evidence. The RTC fails to do so. Therefore, the Alliance has gathered that evidence, and it shows the City has a continuous, consistent, and pervasive pattern of violating its NPDES permits. Exhibit M, attached, details these



violations. Therefore, the SEIR's assumed basis for finding water quality impacts less than significant is false.

My July 24, 2015 comment letter regarding hydrology, water quality and biological impacts observed that the DSEIR's threshold of significance for the effect of untreated wastewater discharges to the Bay, which consists of limiting such discharges to 10 per year, ignores the quantity and duration of such discharges. The response stresses the work the City must do to prevent municipal wastewater from degrading water quality in the Bay, stating:

As described in the permit, and on p. 5.9-20 of the SEIR, the SFPUC must implement the following nine minimum controls in accordance with the Combined Sewer Overflow Policy to reduce the frequency of combined sewer discharges and their effect on receiving water quality:

1. Conduct proper operation and regular maintenance programs for the combined sewer system and combined sewer discharge outfalls;
2. Maximize the use of the collection system for storage;
3. Review and modify pretreatment programs to minimize the effect of non-domestic discharges to the collection system;
4. Maximize flow to the SEWPCP and North Point Facility for treatment;
5. Prohibit combined sewer discharges during dry weather;
6. Control solids and floatable materials in combined sewer discharges;
7. Develop and implement a pollution prevention program focused on reducing the effect of combined sewer discharges on receiving waters;
8. Notify the public of combined sewer discharges; and
9. Monitor to effectively characterize combined sewer discharge effects and the efficacy of combined sewer discharge controls.

These controls represent the best conventional and best available technology economically achievable as required under the Clean Water Act. The City is currently implementing these controls as required by the Combined Sewer Overflow Control Policy.

(RTC at p. 13.21-26.) This is all good and important work, but it is non-responsive to the Alliance's comment. The fact that these measures are the best the City can, or is legally required to do, is not relevant to whether the impact is significant. It may be relevant to whether further mitigation of the impact is feasible or effective, but these considerations cannot affect whether the impact is deemed significant.

The top two paragraphs on page 13.21-27 of the RTC assert that all waste water is treated.

This is beside the point that the City anticipates and is allowed by its NPDES permit up to 10 discharges per year of waste water subject to only primary, rather than secondary, treatment.

The RTC appears to reject the Alliance's comment that the SEIR ignores duration and quantity, not just frequency, of the 10 discharges per year on grounds the NPDES permit does not address the duration and quantity of these discharges. But the issue here is whether impacts on Bay water quality are significant. CEQA does not allow the use of the NPDES permit terms as an absolute proxy for that determination. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-7]*)

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#### **HYD-4 Changes in Effluent Quality**

The respondent has simply laid out the statutory implications of failing to meet the terms of the NPDES permit. There is no evidence or guarantee that the terms will be met, and what steps would be needed to avoid the environmental impacts if they are not met. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-36]*)

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Finally, I note that the vast majority of the volume of documents submitted for today's hearing consists of the documentary history of the City's violations of its NPDES permits (see Exhibit M). This submission reflects the fact that my July 24, 2015 comment letter regarding hydrology, water quality and biological impacts observed that the DSEIR's heavy reliance on City compliance with its NPDES permit to ensure the Project's combined stormwater and sewage impacts are less than significant is an unsupported assumption. My previous comment requested that the City support this assumption with evidence. The RTC fails to do so. Therefore, the Alliance gathered that evidence (contained in Exhibit M), and it shows the City has a continuous pattern of violating its NPDES permits. (*Mission Bay Alliance, Tom Lippe, email, November 3, 2015 [O-MBA21L8-2]*)

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With respect to your finding that the EIR complies with CEQA, it turns out it doesn't for lots of reasons. One of those reasons has to do with the fact that the EIR took the position that compliance with the City's NPDES permit, which is a water-quality permit, would ensure no water-quality impacts of significance.

Well, I objected and said you have to prove that you comply. And the Response to Comments said, Well, we comply.

So, we got the Water Board enforcement files, which are five binders of ten years of noncompliance by the City. So, that simply is not a proper basis to find that there would be no significant effect on water quality. So, I'd like to give you those binders.

(Binders submitted to staff.)

There's also my comment letter on the EIR, which is in two binders, with Exhibits A through S. (Binders submitted to staff.) (*Thomas N. Lippe, Transcript, November 3, 2015 [PH2-Lippe-2]*)

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### Response to Late Comment HYD-1: NPDES Permit Compliance

The commenter reiterates issues previously submitted on the Draft SEIR regarding compliance with existing NPDES permits as adequate to protect water quality, which was addressed in Response HYD-4 (Section 13.21, pp. 13.21-18 to 13.21-21) of the RTC document. As part of this follow-up comment, the commenter has also submitted records of San Francisco NPDES permit violations. The following response provides additional explanation why the SEIR conclusion of less-than-significant water quality impacts is appropriate.

#### *Combined Sewer Discharges*

San Francisco's sewer system was constructed and is operated consistently with the U.S. Environmental Protection Agency (EPA) Combined Sewer Overflow (CSO) Policy, which is codified in the Clean Water Act and is implemented by the State Water Resources Control Board and the San Francisco Bay Regional Water Quality Control Board (RWQCB). The RWQCB, with EPA concurrence, issues a NPDES permit to San Francisco every five years that strictly regulates operations of the system and discharges to the Bay. [CK1]

The NPDES permit imposes numerous limitations and obligations. For wet weather operations, three elements are most significant: the nine minimum controls mentioned in the comment letter, the design criteria for construction and operation of the system (the "10



discharges"), and the obligation to maximize capture, storage and treatment of wet weather flows in the facilities that have been constructed in accordance with the design criteria.

The design criterion for the system in the vicinity of the project is a long term annual average of 10 combined sewer discharges (CSDs, but also referred to as combined sewer overflows or CSOs). The U.S. EPA and Congress, when promulgating the CSO Policy, understood that discharges are variable because rainfall is variable and unpredictable. Based on over 70 years of rainfall data, extensive hydraulics modeling, receiving water uses, and recreational and other use assessments, the U.S. EPA and the RWQCB determined that constructing and operating a system that reduced the discharge of combined sewage to a long term annual average of 10 discharges in this area was sufficient to protect the beneficial uses that water quality protection requirements are intended to protect.

As mentioned above, the design criteria of a long term annual average of 10 discharges is the applicable permit limitation, and is the culmination of extensive analysis of rainfall, discharge and beneficial use characteristics of the system. This analysis considered quantity, duration and volume of the discharges; frequency was chosen by the regulatory agencies to be the regulatory means for addressing such discharges, and is the basis for their determination that the system protects beneficial uses and water quality.

For the above reasons, and those presented in the RTC document, the comment that the Draft SEIR's threshold for significance ignores the quantity and duration of the combined discharges is incorrect.

Moreover, the small potential increase of CSD volume and duration in the Mariposa sub-basin due to the project is unlikely to cause a noticeable effect on water quality relative to overall conditions in the Central Basin of Lower San Francisco Bay, where the CSD structure for the Mariposa sub-basin discharges. First, the modeling performed by HCE demonstrates (see SEIR Appendix HYD) that under average conditions the increase in CSD volume due to the project would be only 0.29 million gallons (which represents a 5 percent increase over existing conditions at the Mariposa sub-basin); likewise, the potential average increase in duration would be only 0.1 more hours (which represents less than a 1 percent increase over existing conditions). Under cumulative conditions (i.e., build-out of the Plan area and implementation of UCSF Long Range Development Plan), the modeling indicated that the average increase in wastewater flows would not increase the number of CSD events in the Mariposa sub-basin, and that the total increase in CSD volume from all cumulative development, including the project, would be about 18 percent and the increase in duration would be about 6 percent. However, this estimated potential increase to volume would be temporary. Once the improvements planned for the Mariposa pump station (see Draft SEIR, Section 5.7, and RTC Section 13.17) have been completed, the project will not cause any increase in CSD volume. These improvements are scheduled to be fully implemented in the next three to six years. It is far more likely that the SFPUC would complete permanent improvements in advance of full projected build-out in the area and thus no increase in CSD volume would occur.



### *NPDES Permit Compliance*

**1. The City's compliance with its NPDES permits has no relationship to the evaluation of the project's potential water quality impacts.**

The commenter misunderstands the relationship between the City's compliance with its NPDES permits and potential water quality impacts from this project. The Final SEIR concludes that the project wastewater flows will not impact water quality with respect to CSDs because the increase in CSDs attributable to the project will not result in CSDs that violate the City's NPDES permit conditions. NPDES permits must include all prohibitions, limitations and other provisions necessary to protect water quality. Compliance with a NPDES permit, therefore is the equivalent to protection of water quality. As explained in the SEIR, the proposed project will result in a small increase of dry weather sanitary flow to the Southeast Water Pollution Control Plant (SEP) and may – under rare, peak conditions – result in a small increase in the volume of CSDs. These increases will not result in a significant water quality impact because they will not cause the SFPUC to violate its NPDES permit. The project-related increases will not negatively affect treatment plant performance, result in an exceedance of permitted dry weather flow, or be inconsistent with the permit provisions regarding CSDs. Therefore, the project will not have a significant impact on water quality as it relates to these issues. Thus, it is reasonable for the Final SEIR to conclude that if the CSDs are allowable under the NPDES permit, then water quality will be protected. Whether and to what extent the SFPUC is in compliance with its NPDES permits is immaterial to whether the NPDES terms are protective of water quality.

**2. The City's operation of its wastewater system has not resulted in NPDES permit violations that are continuous, consistent and pervasive.**

To the extent that Appellant has submitted documentation of NPDES permit violations in the City's operation of its wastewater system, these violations are generally the result of treatment plant issues. Table 3 demonstrates that to the extent the Appellant identifies violations that have occurred at the SEP that could have an effect on water quality due to unpermitted plant discharges, these have been episodic and rare, rather than continuous, consistent and pervasive. Generally, the SEP treats, without incident, approximately 60 million gallons of sewage per day, and approximately 250 million gallons of combined sewage during rain storms. Additionally, the Clean Water Act and the state Water Code provide substantial remedies to ensure compliance. In each of the few instances on the list that concern discharge issues, the RWQCB has promptly pursued, and the City has promptly initiated, corrective measures to fix treatment plant issues that resulted in violations. At all times, the RWQCB has diligently prosecuted enforcement actions to secure compliance. The City has implemented all such corrections and is in compliance. The information submitted by Appellant supports the conclusion that the enforcement and compliance provisions of the Clean Water Act and the Water Code are effective. The historical record of the episodic permit violations supports the conclusion that the City operates its treatment system in compliance with permit requirements and experiences rare, episodic violations of permit terms.



**TABLE 3**  
**SFPUC RESPONSE TO COMMENTER'S SUMMARY OF SAN FRANCISCO NPDES PERMIT VIOLATIONS**

Date of Violation in Table	Exhibit Description in Table	Exhibit Type	SFPUC Summary of Exhibit Contents
2/8/2014	Discharging un-dechlorinated treated water from southeast WPCP		Water was treated but undisinfected. Minimal to no water quality impacts.
2/8/2014	Discharging untreated wastewater		Water was treated and chlorinated, but not dechlorinated. Possible water quality impacts.
2/28/2014	Discharge of un-dechlorinated treated wastewater at discharge point No. 003 through No. 006		Water was treated and chlorinated, but not dechlorinated. Caused by power failure. Possible water quality impacts.
3/10/2014	Discharge primary treated wastewater at discharge point No.001		Water was 5% primary treated undisinfected effluent co-mingled with 95% fully treated and disinfected effluent. Minimal to no water quality impacts.
4/28/2014	Unauthorized discharge due to grease	5-Day Report	Small volume sanitary sewer overflow caused by grease build-up outside of SFPUC control. SFPUC took all appropriate corrective and preventative measures.
5/14/2014	Discharge secondary treated wastewater during dry weather to Islais creek discharge point.		Fully treated effluent discharged during dry weather through an outfall authorized only in wet weather. Minimal to no water quality impacts.
7/19/2014	Unauthorized discharge with a positive chlorine residual		Exceedance of chlorine residual effluent limit lasted approximately 21 minutes. Possible moderate water quality impacts.
10/17/2014	Coliform bacterial counts not calculated as required. 1 permit violation since the last inspection. Not sufficiently dechlorinating discharge water	SEP Inspection (10/2014)	The numeric effluent limitation violation is duplicative of 2/28/2014 violation. Mischaracterized the calculation issue. The issue related to enterococcus, not coliforms. The method for calculating compliance with the enterococcus limits is complicated and not obvious from the permit provisions. The changes ultimately implemented did not affect compliance.
8/10/2004	Unauthorized dry weather discharge due to power outage, insecure back-up power source, refrigeration of effluent not right temp	SEP Inspection 2/2005)	Discharge referred to was fully treated and disinfected and due to power failure. Report otherwise notes that "Overall, the facility's self-monitoring program meets the intent of the NPDES permit; however, a major finding regarding influent and effluent sampling is noted below. The facility appeared to be well operated and properly maintained."
12/6-7/2014	Numerous deficiencies in CCSF's POTW pre-treatment program	Pretreatment inspection	Relatively minor deficiencies found. Report notes "Even though a number of deficiencies were noted as a result of the PCI, the overall finding of the inspection is that San Francisco has a strong and well-implemented pretreatment program."
11/17/2005	CCSF facility using incorrect BOD (biochemical oxygen demand) values in their reporting. Three prohibited dry weather discharges to Islais creek noted since last inspection.	SEP Inspection (11/2005)	Report notes "No permit limit exceedances were identified. The facility's record keeping was judged by the inspector to be excellent. At the time of the inspection the facility appeared well operated and properly maintained." BOD issue was limited to two month period, and didn't affect compliance with effluent limits. Three prohibited dry weather discharges were the ones identified in the 2/2005 inspection report and were all fully treated discharges to Islais due to power failures.



**TABLE 3 (Continued)**  
**SFPUC RESPONSE TO COMMENTER'S SUMMARY OF SAN FRANCISCO NPDES PERMIT VIOLATIONS**

Date of Violation in Table	Exhibit Description in Table	Exhibit Type	SFPUC Summary of Exhibit Contents
8/9/2007	CCSF was not regulating SIU's and inspecting private companies before reissuing them a permit, not citing SIU's if they did violate their permit, many instances of non compliance	Pretreatment inspection	Description of violation is misleading. The deficiencies alleged were primarily administrative in nature: One renewal application from a medical center was not received before a permit was issued; the SIU permits do not specify self-monitoring frequency; one permit did not include a sampling location description; lab analysis sheets do not indicate analytical methods used; one facility (power plant) had not been inspected in the past year; one facility violated the lead categorical standard in 2007 but no enforcement action had yet been taken.
5/8/2008	Effluent exceedance of chlorine residual in the effluent reported since the last inspection.	SEP Inspection (5/2008)	The sole "major finding" was an 8/1/2007 exceedance of the chlorine residual limit (which is 0.0 mg/l Inst. Max.). This limit was not actually exceeded; an operator recorded the chlorine residual during hypochloride flushing of the final effluent sample line. There were no water quality impacts.
6/26/2008	PCI report conducted indicates in the cover letter that the CCSF was not compliant. Water board specifically asks CCSF for a response regarding how they "plan to achieve compliance".	Pretreatment inspection (2/2008)	Actual inspection report not included in exhibit; only cover letter. SFPUC response summarizes the deficiencies, which are largely minor, and identifies corrective actions.
7/11/2008	Discharge spill into Islais Creek as a result of PG&E power outage	5-Day Report	Discharge was fully treated and disinfected, lasted for only seven minutes, and was due to a PG&E power failure
9/11/2008	Fecal coliform concentration exceedance caused five permit violations	2008 Annual report	Only two, not five, violations occurred: 1 dry weather fecal coliform and 1 wet weather enterococcus. The enterococcus exceedance was very small (110 v. 104 MPN/100 mL limit)
12/16/2008	Bacterial concentrations in the effluent was higher than the permit allowed.	Regional Board Letter to SFPUC	References a single enterococcus violation; this is duplicative of the 9/11/2008 "violation"
1/15/2009	The southeast WPCP was not adequately recording and reporting their data to the Water Board. The plant also discharged effluent that exceeded the permits concentration of fecal coliform bacteria. Lab work was not performed adequately with permit standards.	SEP Inspection (1/2009)	Mainly administrative and record-keeping issues, to which the SFPUC responded. Bacteria violation alleged is duplicative of the 9/11/2008 "violation"
2/2/2009	PCI cover letter from 2009 indicates CCSF no compliance due to inadequately regulating SIU's – 18 out of 30 SIU's were not inspected at all by CCSF.	Pretreatment Report (2/2009)	Failure to inspect 18 of 30 SIUs was most serious deficiency identified in the report.
2/23/2009	High copper concentrations in the influent to southeast WPCP	Report from SFPUC to Regional Board	Mischaracterized and misunderstood the report. SEP did not experience high copper concentrations. The report was generated in response to a 13267 letter applicable to all POTWs in the Bay Area as part of the implementation program for site specific copper objectives. No violation.



**TABLE 3 (Continued)**  
**SFPUC RESPONSE TO COMMENTER'S SUMMARY OF SAN FRANCISCO NPDES PERMIT VIOLATIONS**

Date of Violation in Table	Exhibit Description in Table	Exhibit Type	SFPUC Summary of Exhibit Contents
9/21/2009	Enterococcus bacterial concentration exceedance in the effluent at discharge point 002.	SEP Inspection (9/2009)	Identifies only one major finding: a single enterococcus violation. This is duplicative of the 9/11/2008 "violation"
2/26/2010	SIU's significant noncompliance on page 46 of 2009 AR. Summary of report also indicates 5 notices of violations against SUI's and 1 SUI with published noncompliance	SFPUC Pretreatment Annual Report (2009)	Not a violation. The SFPUC's pretreatment report is required by law to identify noncompliant SIUs, which it does.
10/13/2010	CCSF not correctly reporting all overflow events or reporting them at all, not maintaining overflow structures as required by their permit and not keeping-up with general plant maintenance, not removing solids and floating materials prior to discharge	SEP Inspection Report (10/2010)	Mischaracterized the findings of the inspection. Regarding overflow events, there was no finding that they are not being correctly reported; no reporting of overflows that do not reach surface waters was required ("Regional Water Board Order No. R2-2008-0007 does not require the City to report overflows". Regarding the failure to remove solids and materials prior to a CSD discharge; the report only identifies 3 of 29 CSD structures with grease and debris accumulation. These issues have been addressed as described in the SFPUC's response (Exhibit 38).
12/14/2011	The effluent from southeast WPCP did not pass the fish/organism test of 90 percent or more survival	SEP Inspection Report (12/2011)	The SFPUC did violate acute toxicity effluent limits during the period mentioned. Subsequent investigations were inconclusive, as is often the case with acute toxicity, but indicated that the observed toxicity in the test was likely the result of either an artifact of the test method, or the influence of constituents rendered harmless upon discharge (ammonia and carbon dioxide).
11/16/2012	Enterococcus violation	SEP Inspection Report (5/2014)	Single wet weather enterococcus violation.
12/8/2012	Ten counts of Enterococcus bacterial concentration exceedances in the effluent at southeast WPCP between 2008-2012	Acceptance of Conditional Resolution	Prior to the issuance of the 2013 permit, the Regional Board issued Mandatory Minimum Penalties totaling \$6,000 for 10 enterococcus violations, a number of which were during wet weather. One of the nine violations identified is duplicative of the 9/11/2008 "violation"

SOURCE: SFPUC, 2015.



As part of the comments submitted, the commenter identified a total of 26 “violations” that allegedly occurred between 2004 and 2014 in the Bayside sewershed, within which the project is located. The City’s wastewater collection and treatment system is in continuous operation (i.e., 365 days a year, 24 hours a day). Deeming 26 instances of non-compliance over ten years as “continuous, consistent and pervasive” is a gross mischaracterization. Table 3 responds to each of the 26 incidents identified by the commenter.

In addition, the commenter also submitted asserted NPDES permit “violations” at the Oceanside Water Pollution Control Plant between 2004 and 2014. This plant is located on the west side of the City, and operation of this treatment plant is not related to a project located in Mission Bay. This information is immaterial to the proposed project.

The commenter provides his own summary list of asserted NPDES permit violations to support his claim regarding the pervasive nature of the SFPUC’s violations. The description of the events listed in that summary table are duplicative and, in many instances, inaccurate. For example:

- The summary table lists violations of bacteria effluent limitations as occurring on 9/11/2008, 12/16/2008, 1/15/2009, and 9/21/2009. Cumulatively, these four entries in the summary table refer to only two violations: a single exceedance of a fecal coliform limit on 9/11/2008 and a single exceedance of a wet weather enterococcus limit on 12/16/2008. Similarly, the summary table lists violations as occurring on 2/28/2014 and 10/17/2014, but these refer to the same event. Thus 6 supposed violations actually concern 3 events.
- Many of the exhibits provided as evidence of the assertions in the summary table are annual pre-treatment program inspection reports that do not typically constitute NPDES permit violations, but instead identify areas for improvement or point out positive aspects of the program. For example, two of the pretreatment inspection reports cited in the commenter’s exhibit (Exhibits 16 and 18) as the basis for violations included findings that “San Francisco has a strong and well-implemented program” and “the facility appeared well operated and properly maintained.”
- Many of the exhibits provided as evidence of permit violations are annual SEP inspection reports, which the commenter misinterprets in his summary table. For example, the 10/13/2010 incident description in the summary table states that “CCSF not correctly reporting all overflow events,” but the SEP 2010 inspection report listed as an exhibit (Exhibit 37) notes that CCSF is not required to report those overflow events (excursions). The 2/23/2009 incident description in the summary table states “High copper concentrations in the influent to southeast WPCP,” but instead of documenting a violation, the exhibit (Exhibit 34) provided is a report required of all Bay area treatment plants in 2009 as part of the implementation program for recently-adopted site specific water quality standards for copper.

### **3. Very few of the City’s NPDES permit violations resulted in water quality impacts.**

The City has been diligent in identifying and self-reporting the relatively few instances in which NPDES permit provisions have been violated. The majority of these violations have



little or no effect on water quality. This is apparent in Table 3 prepared by the SFPUC, which summarizes the contents and findings of the exhibits listed in the commenter's summary table.

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### Issues Raised by Late Commenters on Tsunami Risk

This response addresses all or part of the following comments, which are quoted below:

O-MBA16S6-13

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8. HYD-8 page 13.21-40, states "The Initial Study did not specifically identify the expected tsunami inundation elevation at the project site. However, subsequent to publication of the SEIR, a more detailed analysis of tsunami risks at the project site has been conducted to determine the maximum inundation elevation associated with a tsunami run-up of 5.9 feet (based on analysis of existing Bay Area tsunami studies). This detailed site-specific analysis indicates that the maximum inundation elevation for the tsunami hazard area in the project vicinity would be -0.3 feet SFD (11.2 feet NAVD88)". Our review of the referenced site-specific analysis<sup>1</sup> indicates that a site specific Tsunami Hazard Analysis was not performed for the project site. The run-up values presented in the ESA summary of Existing Tsunami Hazard Mapping data was based on a 2006 report that was performed for Marine Oil Terminals in San Francisco Bay. The 2006 report is appropriate for a regional analysis, but it is not a site-specific analysis for the project site. The Maximum Tsunami Inundation elevation of 11.2 feet presented in the August 18, 2015 ESA memorandum appears to over-reaching the intent and the accuracy of data obtained from an analysis performed for another site.
9. HYD-8 page 13.21-41 states "Regarding the consideration of sea level rise and extreme tides in estimates of tsunami risks, the detailed analysis described above determined the maximum inundation elevation by adding the maximum tsunami wave height of 5.9 feet to the mean high water (MHW) tidal datum of 5.29 feet NAVD88. The MHW is calculated as the average of all high water heights observed over the National Tidal Datum Epoch. This is consistent with the state mapping. To calculate tsunami inundation elevations associated with extreme high tides and sea level rise as suggested by the comments would be speculative". California Governor's Executive Order 5-13-08, which was issued on November 14, 2008 set policy with respect to sea level rise such that sea level rise should be incorporated into inundation analysis for planning, and accounting for sea level rise is not only not speculative, but was used for the project's own 100-year storm analysis that incorporated sea level rise through 2100 (Impact HY-7 of the SEIR, pp. 5.9-41 through 5.9-44)
10. HYD-8 page 13.21-41 "The comment also suggests a different methodology should have been used to analyze tsunami risk. The commenter's disagreement over the methodology used in the SEIR is noted. Under the "substantial evidence" standard, such disagreement does not mean the methodology used in the SEIR is inadequate or that additional analysis is required." There does not appear to be disagreement that the use of the out-dated Tsunami Hazard analysis in the 1998 EIR is not appropriate for the current project. This is clearly evident with Lead Agency's submittal of the August 18, 2015 memorandum as a new "detailed site-specific analysis".

**Footnote:**

<sup>1</sup> Environmental Science Associates. Summary of Existing Tsunami Hazard Mapping in the Vicinity of the Proposed Golden State Warriors Mission Bay Project and Refined Limits of Maximum Anticipated Hazard. August 18, 2015

(Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-13])

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## Response to Late Comment HYD-2: Tsunami Risk

The comment contends that the tsunami inundation mapping used in the assessment of tsunami inundation provided in Response HYD-8 of the RTC document is appropriate for a regional analysis, but not a site-specific analysis of tsunami impacts for the project site. In addition, the commenter indicates the analysis should consider sea level rise, consistent with the Governor's Executive Order S-13-08. The commenter states that the analysis of tsunami risks in the 1998 Mission Bay FSEIR is outdated as confirmed by OCII's submittal of a new analysis provided in the Responses to Comments document.

### *Assessment of Tsunami Inundation Mapping*

Per the assessment presented in Response HYD-8 in the RTC document, the summary of tsunami inundation mapping was based on existing studies. The assessment stated that the previous analysis included a conservatively high estimate of potential tsunami inundation, and included a factor of safety. The elevation selected for assessing the tsunami inundation is based on emergency planning mapping completed by the State of California, which is based on previous study by Borrero et al. (2006), and is considered the worst-case, or maximum credible, tsunami that would propagate through San Francisco Bay. The assessment discussed in RTC Response HYD-8 was performed to more precisely estimate where the inundation limits extended based on the extreme event. This was a site-specific mapping without any recalculating of tsunami dynamics.

### *Consideration of Sea Level Rise and Extreme Tides*

Consistent with the analysis of sea level rise provided in Impact HY-7 of the SEIR (pp. 5.9-41 through 5.9-44), Executive Order S-13-08 requires that state agencies that are planning construction projects consider and plan for sea level rise projections for the years 2050 and 2100 in conjunction with predicted higher high water levels as well as storm surge and storm wave data. This analysis is appropriate for evaluation of sea level rise because not only will sea level rise result in permanent increases in sea level which must be addressed in planning, but periodic temporary increases in water levels could also occur as a result of storm surge and wave action and could result in temporary flooding.

The analysis of the maximum tsunami inundation elevation provided in RTC Response HYD-8 considers the elevation of the estimated tsunami runup in addition to the mean high water elevation, defined as the average of all the high water heights observed over the National Tidal Datum Epoch. This is consistent with State mapping published by the California Geological Survey.<sup>7</sup> The physical dynamics of tsunami propagation in the future with sea level rise is not fully understood for San Francisco Bay, and no maps exist depicting the future tsunami inundation with sea level rise. Therefore, it would be speculative to analyze tsunami inundation in conjunction with future sea level rise. Nevertheless, as discussed in RTC Response HYD-8, the proposed structures would be constructed to

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<sup>7</sup> California Emergency Management Agency, California Geological Survey, University of Southern California. Tsunami Inundation Map for Emergency Planning, San Francisco North Quadrangle/ San Francisco South Quadrangle (SF Bay). June 15, 2009.



withstand flooding due to a 100-year storm in combination with sea level rise through 2100, which would be expected at an elevation almost two feet higher than the calculated maximum tsunami inundation elevation. Therefore, no structural damage or flooding damage would occur. Further, as discussed in the RTC and Initial Study, public safety would be protected in the event of a tsunami through the City's existing Emergency Response Plan.

### ***Assessment of Tsunami Risks***

The comment states that the analysis of tsunami risks in the 1998 Mission Bay FSEIR is outdated. The Draft SEIR does not rely on that analysis. Rather, an updated assessment was provided in Impact HY-5 of the Initial Study (pp. 103 through 105). This assessment was supplemented by information provided in RTC Response HYD-8 (see Section 13.21.9). RTC Response HYD-8 does not constitute new information, rather it provides clarification regarding why the assessment provided in Impact HY-5 adequately addresses tsunami risks.

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### **Issues Raised by Late Commenters on Water Quality of Stormwater Runoff**

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-33      O-MBA20L7-47

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The Response fail to address the potential for transport of PCB-contaminated sediment to San Francisco Bay. The FSEIR should not be certified until best management practices that are specific to the prevention of PCB transport in stormwater are included as mitigation.

#### **PCB-Specific BMPs Need to be Identified**

Our comments noted the detection of PCB in soil at the Project site and the need to implement measures during soil-disturbing construction activities to prevent the transport of contamination to San Francisco Bay via stormwater. Response HYD-2 simply states that stormwater BMPs for PCBs must be consistent with best available technology economically achievable to meet requirements of the California Construction General Permit (p. 13.21-12). However, the Response does not specify BMPs that would meet this requirement. It is key that certification of the FSEIR is upheld until BMPs specific to preventing the spread of PCB contamination are identified.

The San Francisco Bay PCB total maximum daily loads (TMDL) established by the San Francisco Bay Regional Water Quality Control Board (Water Board) call for stormwater agencies, including the City and County of San Francisco, to achieve wasteload allocations by 2030 for PCBs. The allocations are implemented through NPDES permits issued to Bay Area municipalities which are based on the premise that BMPs will reduce PCBs in stormwater runoff to the maximum extent practicable.

Because PCBs have been detected in Project site soils, and because the Project is located so close to the Bay, we commented on the need to better assess PCBs in soil that would have resulted from past land use. The Response makes no provisions for conducting that assessment and instead relies solely on the idea that unidentified BMPs will suffice in reducing PCB-contaminated stormwater runoff. This is not good enough, especially with the understanding that PCB contamination in San Francisco Bay is a growing concern. In fact, San Jose recently sued Monsanto Corporation over liabilities for cleanup of PCB-contaminated stormwater that flows into the South Bay. A similar lawsuit was brought against Monsanto recently by the City of San Diego.<sup>1</sup>



As mitigation, the FSEIR should include the results of a full evaluation of PCB contamination in Project site soils. Soil sampling should be included as part of the evaluation to target areas where PCBs may have been released or spilled. The study should be conducted under the oversight of the San Francisco Bay Regional Water Quality Control Board to ensure investigation procedures are adequate in assessing PCB contamination at the Project site.

The FSEIR should also identify BMPs that will be effective in reducing PCB loading to the San Francisco Bay. The following measures have been identified in a “toolbox” by the San Francisco Estuary Institute as BMPs that would be effective in reducing loading of PCBs to the Bay.

- Source control BMPs:
  - Use of street sweeping to control sediment accumulation.
- Treatment control BMPs:
  - Use of infiltration trenches and basins to prevent or reduce stormwater runoff;
  - Use of swales, buffer strips, and bioretention to slow flow and increase sediment deposition; and
  - Using media filters, inlet inserts, hydrodynamic separators to trap sediment.

The FSEIR should reference this toolbox and should identify how these specific BMPs will be deployed and maintained. To ensure implementation of PCB-specific BMPs, the FSEIR should include language that would require the preparation of semi-annual reports to the City of San Francisco that would document the deployment and the maintenance of the BMPs.

**Footnote:**

<sup>1</sup> [https://en.wikipedia.org/wiki/Monsanto\\_legal\\_cases](https://en.wikipedia.org/wiki/Monsanto_legal_cases)

*(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-33])*

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### Stormwater Mitigation

The biological effects of stormwater on the environment are not properly analyzed. The offered responses to comments regarding stormwater mitigation are particularly ironic given that the site has demonstrably failed to maintain its Best Management Practices (BMPs) and has visible waste material literally clogging its stormwater drains. (See BSK comments.) The concept that simply stating that a BMP will work, without analyzing the nature of the impacts, and without maintaining those BMPs calls into question every part of the DSEIR that relates to sediment, toxins and wildlife exposures. For illustration, the BMPs at the site currently are not properly maintained and have been filled in or partly filled in with sediment, or breached completely. However, even if these sediment BMPs had been installed correctly and maintained, they do nothing for dissolved-fraction toxic chemicals. The project fails to implement the sediment BMPs correctly and does not even offer readily implementable BMPs for dissolved-fraction chemicals found at the site.<sup>4, 5, 6, 7</sup> Yet, the Response states unequivocally, “Any potential effects associated with contaminated stormwater runoff into San Francisco Bay would be avoided during construction through compliance with the Construction General Permit and implementation of a Stormwater Pollution Prevention Plan (SWPPP) as described in the Section 13.21, Response HYD-2.” (p. 13.19-22) The SWPPP is solely intended to manage ordinary construction sediment and has no specific intent to manage hazardous waste, and in any case does nothing for dissolved hazardous chemicals.

**Footnotes:**

<sup>4</sup> <http://water.epa.gov/polwaste/npdes/swbmp/index.cfm>

<sup>5</sup> [http://water.epa.gov/scitech/wastetech/guide/stormwater/upload/2006\\_10\\_31\\_guide\\_stormwater\\_usw\\_b.pdf](http://water.epa.gov/scitech/wastetech/guide/stormwater/upload/2006_10_31_guide_stormwater_usw_b.pdf)

<sup>6</sup> [http://water.epa.gov/scitech/wastetech/upload/2002\\_06\\_28\\_mtb\\_wetdtnpn.pdf](http://water.epa.gov/scitech/wastetech/upload/2002_06_28_mtb_wetdtnpn.pdf)

<sup>7</sup> [http://water.epa.gov/polwaste/npdes/stormwater/upload/nrc\\_stormwaterreport.pdf](http://water.epa.gov/polwaste/npdes/stormwater/upload/nrc_stormwaterreport.pdf)

*(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-47])*

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### Response to Late Comment HYD-3: Water Quality of Stormwater Runoff

One comment contends that Response HYD-2 of the RTC document fails to address the potential for transport of polychlorinated biphenyl (PCB)-contaminated sediment to San Francisco Bay. The comment also asserts that the presence of PCBs in the soil should be better assessed and PCB-specific best management practices (BMPs) must be included as mitigation. Another comment contends that the biological effects of stormwater runoff on the environment are not properly analyzed, and reliance on BMPs is not sufficient, particularly given that BMPs currently at the site are not properly maintained.

#### *PCBs in Stormwater Runoff*

As discussed in Responses HYD-2 and HAZ-3 of the RTC document (Sections 13.21.3 and 13.22.4) the project sponsor completed a Phase II Environmental Site Assessment (Phase II ESA) in 2015 that evaluated soil quality at the project site.<sup>8</sup> The Phase II ESA included installation of borings and collection of soil samples from throughout the site (including areas that have been excavated and backfilled plus areas outside of previous excavation limits) to provide an overall characterization of soil that would be excavated for the evaluation of health and safety, dust mitigation, and soil disposal requirements. The PCB Aroclor 1254 was detected in only one of the seven soil samples analyzed for PCBs; the concentration was 0.016 milligrams per kilogram (mg/kg). All other PCBs were not present above laboratory detection limits. This indicates that the presence of PCBs is not widespread throughout the project site. The presence of localized areas of higher PCB concentrations is unlikely because contaminants potentially resulting from demolition of many of the previous buildings and potential PCB-containing equipment at the site have likely been removed as part of previous site remediation, or at least would not be present in their original location because of previous soil excavation and backfilling activities. Therefore, more comprehensive sampling for PCBs is not warranted.

Further, as also described in Response HYD-1 of the RTC document (Section 13.22.3), none of the site soil or chemicals identified in the site soil would be transported offsite via stormwater runoff during construction because, as discussed in Impact HY-1 of the Initial Study (pp. 99 and 100), the construction contractor would implement the requirements of the State Water Resources Control Board (SWRCB) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ (Construction General Stormwater Permit)<sup>9</sup> as specified in the 1999 Mission Bay Risk Management Plan.

Accordingly, the project must implement BMPs to prevent the transport of sediment to the Bay, including structural controls to prevent the offsite transport of sediment and other stormwater pollutants and ensure that construction-related discharges of stormwater do not

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<sup>8</sup> Langan Treadwell Rollo, Phase II Environmental Site Assessment, Golden State Warriors Arena, Blocks 29-32, Mission Bay, San Francisco, California. June 2015.

<sup>9</sup> State Water Resources Control Board, National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ. NPDES No. CAS000002. Effective July 1, 2010.



cause an exceedance of receiving water limitations, including limitations for turbidity. Under the Construction General Stormwater Permit, the project sponsor would be required to implement stabilization measures such as covering disturbed areas with mulch, temporary seeding, applying soil stabilizers, applying soil binders, and using fiber rolls or blankets to control erosion. In addition, the Construction General Stormwater Permit would require implementation of sediment control measures such as perimeter silt fences or straw wattles along with stabilization of construction site entrances to capture any soil that becomes eroded.

The comment states that the San Francisco Bay Estuary Institute has identified the following BMPs that would be effective in reducing PCB loads discharged to the Bay:

Source control BMPs:

- Use of street sweeping to control sediment accumulation.

Treatment control BMPs:

- Using infiltration trenches and basins to prevent or reduce stormwater runoff;
- Using swales, buffer strips, and bioretention to slow flow and increase sediment deposition; and
- Using media filters, inlet inserts, hydrodynamic separators to trap sediment.

Note, that as described in Response HAZ-3 of the RTC document (Section 13.22.4), the contractor would be required to conduct regular street sweeping under the conditionally approved Dust Monitoring Plan for the project.<sup>10</sup>

Regarding the use of the specified treatment control BMPs, the construction contractor would be responsible for preparation of the Stormwater Pollution Prevention Plan (SWPPP) under the Construction General Stormwater Permit, and would have some discretion in how to achieve the erosion and sediment control requirements of the permit. However, the specified BMPs would need to ensure compliance with these narrative effluent standards of the Construction General Permit:

- Storm water discharges and authorized non-storm water discharges regulated by the general permit shall not contain a hazardous substance equal to or in excess of reportable quantities established in Title 40 of the Code of Federal Regulations, Sections 117.3 and 302.4, unless a separate National Pollutant Discharge Elimination System (NPDES) permit has been issued to regulate those discharges.
- Dischargers shall minimize or prevent pollutants in storm water discharges and authorized non-storm water discharges through the use of controls, structures, and management practices that achieve Best Available Technology for toxic and non-conventional pollutants and Best Conventional Technology for conventional pollutants.

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<sup>10</sup> Langan Treadwell Rollo. Revised Dust Monitoring Plan, Golden State Warriors Arena, Blocks 29 through 32, Mission Bay, California. October 2, 2015.



If use of the treatment control measures identified by the comment is necessary to achieve the effluent standards of the Construction General Stormwater Permit, they would be included in the construction contractor's SWPPP prepared in accordance with the Construction General Stormwater Permit. Compliance with the SWPPP and the performance of the specified BMPs would be documented through regular inspections of the site throughout construction as well as post-storm inspections to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify any additional BMPs or corrective actions necessary. The inspections would be conducted by a qualified professional. The required Annual Report would document compliance with the Construction General Stormwater Permit and would identify any compliance issues and corrective actions taken. Regular reporting to the CCSF as suggested by the comment is not necessary to ensure compliance with the General Construction Stormwater Permit or the deployment or performance of the selected BMPs.

#### *Biological Effects of Stormwater Runoff*

The commenter's statement that BMPs currently at the site are not accurately maintained is in no way applicable to the proposed project. As discussed in the SEIR Project Description (Chapter 3, p. 3-10), the project site currently operates as a surface parking lot, and the project sponsor has no involvement in these operations. Existing site conditions are not an impact of the proposed project. In fact, the quality of stormwater runoff from the project site would be improved under the proposed project because, as described above, construction activities proposed by the project sponsor would be required comply with the requirements of the Construction General Stormwater Permit as specified in the 1999 RMP. Accordingly, the project must implement a set of BMPs to prevent the transport of sediment to the Bay, including structural controls to prevent the offsite transport of sediment and other stormwater pollutants and ensure that construction-related discharges of stormwater do not cause an exceedance of receiving water limitations. PCBs and other contaminants at the site generally bind to soil particles and would be transported via sedimentation rather than as a dissolved components of the stormwater. Therefore, the sediment and erosion control requirements of the Construction General Stormwater Permit are sufficient to control the off-site transport of contaminants in stormwater runoff from the project site during construction. The commenter's statement that "The project fails to implement sediment BMPs correctly" fails because the project has not yet been implemented and the current condition of the site in no way reflects how the project sponsor will implement BMPs during project construction. As stated above, the project sponsor has no involvement in the existing parking operations at the site and existing conditions are not an impact of the proposed project.

As stated in Response HYD-2 of the RTC document (Section 13.22.3), there would be no threat to Bay water quality or biota, including steelhead habitat, as a result of stormwater runoff during construction because of implementation of the requirements of the General Construction Stormwater Permit discussed in Response HYD-2 and above. Adequate performance of the specified BMPs would be documented through regular inspections of the site throughout construction as well as post-storm inspections to (1) identify whether BMPs were adequately designed, implemented, and effective, and (2) identify any additional



BMPs or corrective actions necessary. The inspections would be conducted by a qualified professional.

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### Issues Raised by Late Commenters on Water Quality, Interim Wastewater System Improvements

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-35

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#### HYD-3 Water Quality – Waste Water System Improvements

The Response acknowledges that building schedules for other projects such as UCSF – Phase 2 Medical Center may result in wastewater system tolerance exceedances.

The commenter writes that:

*“While the system can currently accommodate project-related wastewater flows as discussed in Impact UT-5, the capacity of the Mariposa Sanitary Pump Station could be exceeded as future projects are implemented, including UCSF’s Phase 2 Medical Center.”*

The respondent then acknowledges several assumptions outlined below.

- SFPUC will implement permanent pump station, etc. “as soon as feasible”
- Schedule for improvement is currently unknown
- Completion (of improvements) could occur aft the proposed project is operation

*“It is assumed that the SFPUC will implement the permanent pump station and associated force main and conveyance piping improvements at the Mariposa Pump Station as soon as feasible, but the schedule for these improvements is currently unknown and completion could occur after the proposed project is constructed and operational. ”*

Again, the Response assumes SFPUC would make necessary operational and piping changes to accommodate additional flows in the interim in order to remain in compliance with RWQCB permits. The respondent further states that system approvals by the RWQCB would ensure that water quality of the Bay would be protected. This appears to be an unmitigated project impact.

*“In the event that additional future wastewater flows would exceed the pump station capacities before the needed wastewater system improvements could be completed, it is assumed that the SFPUC would make internal operational or piping changes to accommodate the additional flows in the interim in order to remain in compliance with RWQCB permit requirements. The interim system modifications would be subject to the approval of the RWQCB under the terms of the Bayside NPDES permit. Approval by the RWQCB would ensure that water quality of the Bay would be protected during the interim period. ”*

The Response concludes that interim modifications are operation or internal and would therefore not result in any physical environmental effects.

*“Any interim system modifications are assumed to be operational or internal to the existing pump stations and therefore would not result in any physical environmental effects.”*

The response defers water quality issues by saying this assessment was addressed in different sections of the DSEIR, however, acknowledged potential for wastewater systems capacity exceedance is by definition a water quality issue and a CEQA Utilities impact. The response even



acknowledges this by presenting the SFPUC interim contingency plans outlining the wastewater re-routing system. If this plan proves insufficient as the result of system loading, etc., what happens to excess wastewater the system is not designed to handle? Either there will be upset conditions which will cause environmental impacts associated with sewage or there will be upgrades to the water treatment system(s) which have undisclosed environmental effects and no clear funding. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-35]*)

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#### **Response to Late Comment HYD-4: Water Quality, Interim Wastewater System Improvements**

The comment addresses the same issues that were covered in Response HYD-3 of the RTC document (Section 13.21.4), which discusses the potential for water quality affects to occur if cumulative wastewater flows exceed the 3.5 million gallon per day (mgd) capacity of the Mariposa Pump Station before the San Francisco Public Utilities Commission (SFPUC) completes long-term and permanent improvements to the pump station and associated facilities. The commenter contends that because the analysis relies on compliance with the National Pollutant Discharge Elimination System (NPDES) permit for the Southeast Water Pollution Control Plant (SEWPCP), the North Point Wet Weather Facility, and the Bayside wet-weather facilities (referred to as the Bayside NPDES Permit) and oversight by the Regional Water Quality Control Board (RWQCB), potential water quality impacts are unmitigated. The comment also questions what will happen if the proposed operational changes do not provide enough capacity to accommodate the cumulative flows. As discussed below, the cumulative wastewater flows to the Mariposa Pump Station would not result in water quality effects, even if flows temporarily exceed the existing 3.5 mgd capacity of the pump station because 1) it is not likely that the flows would actually exceed the pump station capacity and 2) the SFPUC has the capacity to implement temporary operational changes to convey flows to the SEWPCP in the unlikely event that the capacity of the pump station is exceeded.

#### ***Estimates of Wastewater Flows***

Wastewater flows considered in the cumulative impact analysis on wastewater infrastructure presented in Impact C-UT-2 of the SEIR (pp. 5.9-13 through 5.9-17) include peak existing wastewater flows plus the estimated peak flows from the proposed project plus the estimated peak flows from the reasonably foreseeable future projects in the drainage basin of the Mariposa Pump Station – a total peak flow of 4.8 mgd. This provides a conservatively high estimate of potential wastewater flows to the pump station, and represents a combination of events that would not likely occur concurrently. For one thing, the peak flow estimate for the project assumes that peak flows from all office, commercial, restaurant, and event center uses would occur at one time. This is an unlikely event, because peak use of the event center for basketball games or concerts would typically occur during the evenings or weekend, and not at the same time as peak office use hours. It is even more unlikely that the project's total peak flow would occur concurrently with the peak flows from other projects in the drainage basin. Further, peak flows, by definition, only occur for short periods of time, and the total cumulative peak flow would not occur over an extended time period. As summarized in the Technical Memorandum provided in Appendix HYD of



the SEIR,<sup>11</sup> the average wastewater flow from all cumulative projects within the drainage basin would be less than 1.7 mgd, which is far below the 3.5 mgd capacity of the Mariposa Pump Station.

### *Operational Changes*

The SFPUC has indicated that in the unlikely event that cumulative future wastewater flows would exceed the existing 3.5 mgd capacity of the Mariposa Pump Station before permanent conveyance improvements are constructed, it would implement temporary operational changes in order provide capacity for the additional flows (see Impact C-UT-2 of the SEIR and Response UTIL-6 of the RTC document, Section 3.17-7). These temporary operational changes could include:

- Routing of dry weather flows to existing wet weather transport/storage boxes to temporarily store select peak flows until flows can be pumped to the SEWPCP, as consistent with the Bayside NPDES permit requirements.
- Reducing flows within the Mission Bay basin by modifying sewers/sewer connections to allow temporary redirection of some flows to other basins, as feasible, including potential increased routing of flows from the proposed event center (or other Mission Bay facilities) to Mission Bay Sanitary Pump Station or Channel Pump Station, as appropriate.

The modifications described above would be implemented by SFPUC through operational or internal modifications to the existing pump stations and would therefore not result in any physical environmental effects from construction activities.

Implementation of these operational changes would ensure that all of the cumulative wastewater flows would be conveyed to and treated at the SEWPCP in accordance with the Bayside NPDES Permit as discussed in Impact HY-6 of the SEIR (pp. 5.9-33 and 5.9-34) and Response HYD-3 of the RTC document (Section 13.21.4). The Bayside NPDES Permit requires that the combined sewer system and SEWPCP are operated in a manner that would not result in unauthorized discharges that could adversely affect Bay water quality and that authorized discharges comply with specified effluent and receiving water effluent requirements. The NPDES permit (pp. 16 and 17) also includes collection system management requirements that require the combined sewer system to be operated in a manner that does not result in a release of untreated or partially treated wastewater. Compliance with these requirements would ensure that no discharges of untreated sewage occur, and implementation of the operational changes would ensure that adverse water quality effects would not occur. Further, changes in flow conditions that could affect collection system management, such as upgrades to the Mariposa Pump Station, are subject to oversight by the RWQCB as the NPDES permitting agency.

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<sup>11</sup> Hydroconsult Engineers, Combined Sewer Impacts Analysis, Golden State Warriors Arena EIR. February 25, 2015.



### Issues Raised by Late Commenters on Water Quality Regulatory Framework

This response addresses all or part of the following comments, which are quoted below:

O-MBA20L7-43

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The DSEIR analysis, at a minimum, should have been fully developed to acknowledge the Clean Water Act (CWA) and Porter-Cologne (and other regulatory requirements), as well as the numerous state and federal wetland policies and regulations that apply to this site.

*(Mission Bay Alliance, Thomas N. Lippe, letter, November 2, 2015 [O-MBA20L7-43])*

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### Response to Late Comment HYD-5: on Water Quality Regulatory Framework

The commenter is mistaken that the SEIR does not acknowledge the Clean Water Act, Porter Cologne Water Quality Control Act, or other relevant regulatory requirements. Each section of the Draft SEIR includes a section on Regulatory Framework. The Clean Water Act is described on p. 5.19-9 of the SEIR in Section 5.9.4.1, Federal Regulations. The Porter Cologne Water Quality Control Act is discussed on p. 5.9-21 of the SEIR in Section 5.9.4.2, State Regulations.

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## SECTION 18: RESPONSES TO LATE COMMENTS ON HAZARDOUS MATERIALS

The comments and corresponding responses in this section cover topics analyzed in the Initial Study, Section E.16, Hazards and Hazardous Materials, which is included in Appendix NOP-IS of the SEIR, as augmented in RTC document Section 13.22. These include topics related to:

- Issue HAZ-1: Assessment of Hazardous Materials Impacts
- Issue HAZ-2: Naturally-occurring Asbestos

### Issues Raised by Late Commenters on Environmental Screening Levels

This response addresses all or part of the following comments, which are quoted below:

O-MBA15S5-1      O-MBA16S6-8

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As described in the July 26, 2015, comment letter submitted by this office regarding the DSEIR (“SM Law Comments”), hazards and hazardous materials associated with the Project site are inadequately analyzed in the 1998 Supplemental Environmental Impact Report prepared for the Mission Bay Redevelopment Plan (“1998 SEIR”). (See SM Law Comments, pp. 7-13 and BSK HazMat report, attached as Exhibit B to SM Law Comments.) In reliance on this flawed and outdated analysis, the DSEIR contains no analysis whatsoever of hazards. In addition, the 1999 Risk Management Plan, and the 2006 Revised Risk Management Plan for the site, referenced in the Initial Study prepared for the Project, also rely on outdated methodologies for identifying human health risks associated with exposure to hazards that could occur during construction and operation of the Project.

In order to demonstrate the inapplicability and ineffectiveness of the screening levels relied upon for the Project, the attached report prepared by Damian Applied Toxicology, LLC: (1) provides updated screening levels for the constituents at the site; (2) provides newly applicable screening levels that did not exist at the time of the 1998 EIR; (3) compares the new and old screening levels; and (4) compares the updated screening levels to the most recent site investigation data from the Project site. The Damian Report shows that the prior screening levels are completely outdated and do not protect public health. Using updated screening levels that address a wide range of relevant potential receptors and exposure pathways, the Damian Report concludes that 19 chemicals (18 in soil and 1 in groundwater) that were detected in the 2015 Phase II investigation at the site exceed at least one screening level. Indeed, in some instances, sampled soil exceeded screening levels by more than 10 times.

As the DSEIR completely fails to address these potentially significant hazards and hazardous materials impacts, it must be revised and re-circulated for public review prior to any action being taken on the Project. Thank you for considering these supplemental comments. Please feel free to contact my office with any questions.

#### **DAMIANAPPLIEDTOXICOLOGY, LLC**

Your office requested that **Damian Applied Toxicology, LLC (DAT)** develop updated soil and groundwater screening levels for the Golden State Warriors Arena Construction Project and compare those values to both the previous screening levels and site investigation data presented in the Phase II Environmental Site Assessment (Phase II) (Langan Treadwell and Rollo [LTR], 2015).

Screening levels are levels of a chemical in environmental media, for example soil or groundwater, which are considered safe for long-term exposure. Screening levels are developed based on the environmental media of interest, the exposed population of interest (e.g. residents or commercial workers), and the relevant exposure pathway (e.g. drinking water for groundwater or dermal contact



with soil). Screening levels may be developed to protect human health or ecological receptors (e.g. aquatic and terrestrial wildlife). In most cases, regulatory agencies have already developed screening levels for certain chemicals in soil or water. However, in some cases (e.g. construction workers) no such screening levels have been developed and a risk assessor must develop new screening levels using scientifically-defensible methods and assumptions. Typically, such methods and assumptions are obtained from the United States Environmental Protection Agency (USEPA), the state agency responsible for review of health risk assessments, or a combination of the two.

The previous screening levels were originally presented in the *Risk Management Plan, Mission Bay Area, San Francisco, California* (RMP) (ENVIRON, 1999), and were referenced without revision in the *Revised Risk Management Plan* (BBL, 2006). Risk-based screening levels change fairly rapidly over time due to new developments in the toxicological science underlying such levels, as well as state and federal risk assessment policy changes. In addition, in most cases, screening levels become more stringent over time, not less so. Thus, in the 16 years since the 1999 RMP was prepared many of the originally proposed screening levels have become obsolete and are no longer adequately protective. Finally, the original screening levels did not address construction workers, exposure of indoor workers to volatile chemicals via vapor intrusion, or ecological risks. The purposes of this report therefore, are: 1) to update the 1999 screening levels, 2) provide new screening levels to address ecorisk, construction workers and vapor intrusion, 3) compare the new screening levels to the previous screening levels, and 4) compare the new screening levels to the most recent site investigation data as presented in the Phase II report (LTR, 2015). The following sets of screening levels were therefore developed for all of the chemicals originally listed in the 1999 RMP (as shown in Appendices B and E from that report):

- Soil screening levels for off-site (nearby) residents and on-site commercial workers
- Soil screening levels for on-site construction workers
- Soil screening levels to protect ecological receptors (terrestrial wildlife)
- Groundwater screening levels for drinking water
- Groundwater screening levels to protect indoor workers from vapor intrusion
- Groundwater screening levels to protect aquatic life

Note that since no residential development is planned for the arena project site, screening levels were not developed for on-site residential use.

#### **SCREENING LEVEL DEVELOPMENT**

Details regarding the development of the screening levels are provided below.

##### **Soil Screening Levels for Off-Site Residents and On-Site Commercial Workers**

Off-site residents located close to the site were identified as a potential receptor population in the 1999 RMP. This receptor would not have direct contact with site soils by either inadvertent ingestion or dermal contact but may be exposed to chemicals released into the air either by resuspension of soil particulates (for non-volatile chemicals such as metals) or by volatilization (volatile chemicals such as benzene). On-site commercial workers, on the other hand, would be directly exposed to site soils by soil ingestion, dermal contact and inhalation.

Updated soil screening levels for these receptors were obtained primarily from the latest version of the United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) (USEPA, 2015). However, if a corresponding Department of Toxic Substance Control (DTSC) value was available for a particular chemical that value was used preferentially (DTSC, 2015). For the off-site resident, exposed only via inhalation, the Inhalation Screening Level was used. It is important to note that both children and adults are taken into consideration in the development of the residential screening levels and the most stringent value protective of both the adult and child was used. For the on-site commercial worker, the screening level reflecting all soil exposure pathways was used. For carcinogenic chemicals the lower of the cancer or non-cancer risk-based value was used. The resulting values for non-volatile chemicals are shown in Table 1. Table 1 shows that many of the



updated screening levels (particularly for the on-site commercial worker) are well below (more stringent than) the older 1999 screening levels (as indicated in yellow highlight).

It should be noted that the screening level for arsenic (12 mg/kg) is not health risk-based. The value of 12 mg/kg is based on the upper bound of naturally occurring arsenic in California (Bradford et al., 1996). By convention in California, a background-based value for arsenic is normally used as the screening level for arsenic at contaminated sites instead of a health risk-based value (California Environmental Protection Agency [CalEPA], 2005). This is because a strictly health risk-based value would be well below naturally occurring background levels.

The screening level for lead for on-site commercial workers is the California Human Health Screening Level (CHHSL) of 320 mg/kg (Office of Environmental Health Hazard Assessment [OEHHA], 2009). The same value is also protective of off-site residents as the contribution of inhalation exposure to lead is negligible relative to soil ingestion (DTSC, 2011), and off-site residents would only be exposed via inhalation.

Updated screening levels for volatile chemicals in soil are shown in Table 2. Table 2 shows that virtually all of the updated screening levels for both off-site resident and on-site commercial worker are well below the older 1999 screening levels (as indicated in yellow highlight).

#### **Soil Screening Levels for On-Site Construction Workers**

The 1999 RMP did not address construction workers. However, construction workers have higher levels of exposure to soils than either residents or commercial workers. Therefore, screening levels for this receptor population are warranted.

Neither USEPA nor any California regulatory agency has developed risk-based screening levels for construction workers. However, USEPA has established calculation methods for developing such levels (USEPA, 2002 and 2015), and the California DTSC has established default exposure parameters for construction worker risk assessment that can be used in the USEPA equations. The soil construction worker equations presented in USEPA (2015) were used to calculate soil screening levels for the construction worker. Screening levels were calculated assuming worker exposure via soil ingestion, dermal contact with soil, and inhalation. The screening levels were calculated using the DTSC exposure parameters shown in Table 3. Toxicity criteria used in the calculations were obtained first from DTSC (2015), and if not available from DTSC (2015), from USEPA (2015). For carcinogenic chemicals the lower of the cancer or non-cancer risk-based value is shown as the final recommended screening value. The resulting screening levels for non-volatile chemicals are shown in Table 4. Note that the screening level for arsenic was assumed to be 12 mg/kg, as discussed previously. The screening level for lead for on-site construction workers was assumed to be the commercial/industrial worker CHHSL of 320 mg/kg (OEHHA, 2009). Screening levels for volatile chemicals are shown in Table 5.

#### **Soil Screening Levels for Protection of Ecological Receptors**

The 1999 RMP did not include any ecorisk-based soil screening levels, therefore, ecorisk-based soil screening levels for the protection of terrestrial wildlife were obtained from key USEPA references. Available screening levels for non-volatile chemicals and volatile chemicals are shown in Tables 6 and 7, respectively.

#### **Groundwater Screening Levels Based on Drinking Water Exposure**

Groundwater screening levels based on human drinking water exposure were considered to be the State of California enforceable drinking water standard, that is, the Maximum Contaminant Level (MCL) (CalEPA, 2015). However, if an MCL was not available for a particular chemical the USEPA RSL for tapwater ingestion was used (USEPA, 2015). The updated groundwater screening levels are shown in Table 8.



### **Groundwater Screening Levels to Protect Indoor Workers from Vapor Intrusion**

The 1999 RMP did not include screening levels to protect indoor workers from vapor intrusion due to volatile chemicals in groundwater. The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), as part of its Environmental Screening Level (ESL) program, has developed groundwater screening levels to protect workers from this type of chemical exposure (SFBRWQCB, 2013). These values are shown in Table 9.

### **Groundwater Screening Levels for the Protection of Aquatic Life**

The 1999 RMP also did not provide screening levels for the protection of aquatic life from contaminated groundwater. There is a potential for groundwater on the site to daylight or infiltrate into freshwater or estuarine wetlands. Therefore, groundwater screening levels protective of aquatic life were obtained for each of these aquatic habitat types from SFBRWQCB (2013). These values are shown in Table 10.

### **COMPARISON OF PHASE II DATA TO UPDATED SCREENING LEVELS**

Table 11 compares the updated soil screening levels to the maximum soil concentration reported in the Phase II (LTR, 2015). In the Phase II, soils were analyzed in some cases to a maximum depth of 31 ft below ground surface (bgs), but in all cases to at least 10 ft. However, with the exception of barium, the maximum concentrations were all detected within 10 ft bgs. The maximum detected concentration of barium was found at 20 ft; however, this value did not exceed any screening level.

Only those chemicals exceeding at least one of the updated screening levels are shown. Table 11 shows that 18 chemicals exceed at least one of the new screening levels and many of these chemicals exceed more than one screening value. Chemicals exceeding at least two screening levels include arsenic, benzo(a)pyrene, cadmium, lead, and nickel. The greatest exceedances of a screening level were due to lead and nickel. Arsenic was only slightly exceeded (maximum of 13 mg/kg compared to a screening level of 12 mg/kg).

Table 12 shows those chemicals which exceed at least one of the updated groundwater screening levels. Based on the Phase II data, only benzene exceeded a groundwater screening level, and this was based on drinking water exposure.

In summary, using updated screening levels that address a wide range of relevant potential receptors and exposure pathways, 19 chemicals (18 in soil and 1 in groundwater) detected in the Phase II exceed at least one screening level. Of particular importance are lead and nickel due to the significant exceedances of these two chemicals. (*Mission Bay Alliance, Soluri Meserve, letter, October 20, 2015 [O-MBA15S5-1]*)

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Second, following release of the NOP/IS,<sup>3</sup> the applicant's consult prepared a Phase II report that identified significant additional contamination in soils onsite. The Phase II report shows that significant amounts of both previously existing and subsequently-imported hazardous waste remain on the site today. Backfill used in this area contained Class 1 and 2 hazardous materials that were not present before the excavation and partial removal of petroleum contaminated materials. These materials are not addressed in the 1998 RMP or 2006 Revised RMP. The FSEIR now acknowledges the existence of this contaminated backfill (FSEIR, 13.22-20), which was withheld from public disclosure in the NOP/IS and RDEIR.

The presence of newly-revealed contamination, viewed in isolation, represents new information and/or a changed circumstance requiring analysis and disclosure in a recirculated DSEIR. What is more, however, the Alliance retained an independent toxicologist to compare the results of the Phase II to the health screening levels in the 1998 RMP (and included in the 2006 RRMP) and current standards. The report prepared by Damian Applied Toxicology, LLC ("DAT"): (1) provides updated screening levels for the constituents at the site; (2) provides newly applicable screening levels that did not exist at the time of the 1998 EIR; (3) compares the new and old screening levels; and



(4) compares the updated screening levels to the most recent site investigation data from the Project site. (See DAT Report, submitted to City on October 20, 2015.)

The DAT Report shows that the prior screening levels are completely outdated and do not protect public health. Using updated screening levels that address a wide range of relevant potential receptors and exposure pathways, the DAT Report concludes that 19 chemicals (18 in soil and 1 in groundwater) that were detected in the 2015 Phase II investigation at the site exceed at least one screening level. Thus, present contamination poses potentially significant hazards due to impacts to the shallow water table, risks to construction workers exposed to site soils, including backfill, risks to commercial workers at the planned development project, and risks from transport and disposal of this hazardous waste, to the extent it may be taken off site. These hazards are not addressed in the RMP/RRMP, and represent new significant impacts that require recirculation of the DSEIR.

The FSEIR mischaracterizes the record in an attempt to dismiss the significance of this newly-discovered contamination that is well above screening levels. First, the FSEIR suggests that it is contamination is not the result of subsequent activities at the Project site, stating, “The fill unit is . . . likely related to debris from the 1906 earthquake and resulting fire.” (FSEIR, 13.22-21.) This statement is misleading because it conceals from the public the fact, recognized in both the applicant’s Phase II report and the prior BSK report, that this material was deposited onto the Project site in approximately 2005 following excavation to remediate petroleum free-product found onsite. (Phase II report, p. 6; BSK Hazardous Materials Report dated July 22, 2015, p. 3.) Thus, available facts indicate that this contaminated soil was the result of activities that took place following the 1998 SEIR, not the 1906 earthquake.

The City also attempts to dismiss the significance of this contamination by asserting, “[T]he Phase II ESA determined that these concentrations are not considered a health concern to construction workers.” (FSEIR, 13.22-21.) First, it is the function of a health risk assessment, and not a Phase II environmental site assessment, to make a determination of human health risk. Indeed, the completely inappropriate and inadequate nature of this conclusion in the Phase II is demonstrated with clarity in the DAT Report, discussed above, establishing that some of these contaminants are found in this fill material at up to ten times current screening levels. The City’s misstatements on these critical human health issues fall well below its duty of good faith.

Finally, it is noted that the FSEIR repeatedly relies on compliance with the existing 1999 RMP under the San Francisco Bay Regional Water Quality Control Board (“RWQCB”) oversight to ensure that impacts are less than significant. (FSEIR, 13.22-8 – 12.) In addition to establishing that the RMP itself is outdated and no longer adequate to protect human health, the attached correspondence establishes that oversight by the RWQCB is no longer adequate to effectively manage the site for the protection of construction workers and the public. (See Exhibit 3, letter to Dept. of Toxic Substances Control dated October 23, 2015.)

In summary, the information submitted by the Alliance constitutes substantial evidence of a fair argument that the Project will have a significant adverse effect regarding hazardous materials. In the alternative, per CEQA section 21166 and CEQA Guidelines section 15162, the facts described above constitute a change in circumstances since the 1998 SEIR involving, and significant new information showing, a new significant effect not previously analyzed in the 1998 SEIR. Under either standard, the City must prepare and circulate for public comment an environmental impact report to review the Project’s impacts on hazardous materials.

**Footnote:**

<sup>3</sup> Hazards and Hazardous Materials is one of the subjects determined by the City to not warrant any analysis in the DSEIR.

*(Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-8])*



### Response to Late Comment HAZ-1: Assessment of Hazardous Materials Impacts

The commenter claims that impacts related to hazards and hazardous materials are inadequately addressed in the Initial Study because the analysis relies on the 1998 FSEIR for the Mission Bay Redevelopment Plan and because the 1999 Risk Management Plan (RMP) prepared in accordance with the FSEIR relies on outdated methodologies for assessing human health and environmental risks associated with exposure to hazardous materials during construction and operation of the project. In addition, the commenter notes that the project sponsor completed a Phase II Environmental Site Assessment in 2015, since completion of the Initial Study analysis, and contends that this is significant new information requiring recirculation of the Draft SEIR. Because a portion of the fill on the project site has been deposited there as part of remediation conducted since publication of the 1998 FSEIR, the commenter further contends that impacts associated with disposal of hazardous soil and exposure to the fill materials are not adequately addressed in the SEIR.

The SEIR describes the history of the site, including investigations and remedial actions that have been performed since 1998. (SEIR, Appendix NOP-IS, pp. 116-118; RTC document, Section 13.22.3.) As these documents explain, in 2005, a portion of the site (located in the south-east area) was excavated as the “Pier 64” response action in order to remove petroleum hydrocarbon free product. After the clean-up was completed, the area was backfilled with concrete rubble and overburden soil that had been excavated and stock-piled in order to remove the hydrocarbon contamination. This material came from the same area that was addressed as part of this cleanup. The Regional Water Quality Control Board – the agency with regulatory authority over the cleanup – determined that this use of the rubble and overburden was appropriate.

The commenter also provides updated environmental screening levels for the evaluation of chemical concentrations in the soil and groundwater and notes that some constituents identified during the 2015 Phase II Environmental Site Assessment exceed at least one screening level. The supporting material for the appeal identifies updated environmental screening levels for on-site construction workers, off-site (nearby) residents, on-site commercial workers, ecological receptors (terrestrial wildlife), drinking water, vapor intrusion into the building, and protection of aquatic life. In addition, the commenter submitted a letter to the California Department of Toxic Substances Control (DTSC) requesting that this agency assume oversight responsibility for implementation of the RMP at the project site.

OCII acknowledges that the environmental screening levels have been updated since preparation of the 1999 RMP for the Mission Bay Plan Area. However, as explained in more detail below, the comment letter conflates this screening level information with the CEQA analysis of potentially significant hazards and hazardous materials impacts. None of the information presented by the commenter, including the updated environmental screening levels, affects the conclusions reached in the SEIR (Initial Study pp. 106 to 122) as augmented and clarified in Response HAZ-1 of the RTC document (Section 13.22.2) regarding hazards and hazardous materials impacts. Specifically:



- the 1999 Mission Bay RMP implements specific risk management procedures and requires compliance with the current San Francisco Health Code Article 22A;
- regulatory requirements applicable to construction of the project would preclude exposure of the public and wildlife to chemicals in the soil during construction of the project; and
- the project design would preclude human, wildlife, and stormwater contact with the soil during operation of the project.

#### *Applicability of 1999 RMP*

Among the requirements of the 1999 Mission Bay RMP are risk management measures specific to construction, including dust control measures, soil management protocols, stormwater pollution prevention plan requirements, worker health and safety planning requirements, contingency requirements in the event that previously unidentified underground structures or contamination are identified, protocols for dewatering activities, and a framework for complying with the current requirements of Article 22A.

Measures specific to post- development conditions are intended to manage risks to site occupants and ensure that they would have no contact with site soils and groundwater as well as manage risks to maintenance and utility workers that might come in contact with soil left in place during their normal work activities. They include the following: covering of exposed areas; limiting future residential development within the Mission Bay Plan Area to preclude single family homes with private front or back yards; restricting the future use of groundwater for domestic, industrial, or irrigation purposes; providing protocols for future subsurface activities; and implementing a long-term groundwater monitoring program.

Implementation of the RMP does not rely on outdated standards and procedures, as alleged by the commenter. Rather, the RMP ensures compliance with the current regulatory requirements through implementation of Article 22A of the San Francisco Health Code, as discussed in Response HAZ-1 and HAZ-3 of the Responses to Comments document (see Sections 13.22.2 and 13.22.4, respectively. Known as the “Maher Ordinance”, Article 22A, was updated in 2013 and authorizes the San Francisco Department of Health, Environmental Health Branch, Site Assessment and Mitigation (EHB-SAM) to implement state regulations with respect to hazardous substances in soil and groundwater. Article 22A requires a subsurface investigation involving the analyses of soil and groundwater for hazardous substances including, but not limited to: metals, volatile organic compounds (VOC), total petroleum hydrocarbons, semi-volatile organic compounds (SVOC), PCBs, pH levels, cyanides, methane and other flammable gases, and naturally occurring asbestos. Sampling of soil and groundwater must be in accordance with procedures approved by the DTSC or the State Water Resources Control Board and the San Francisco Bay Regional Water Quality Control Board (RWQCB). Likewise, testing of samples must be analyzed by a certified laboratory in accordance with methods approved by these agencies. The subsurface investigation report must disclose the presence of a hazardous substance and, for each, the level detected and must be compared to State and federal guidelines and standards. If



contamination is identified, Article 22A requires a Site Mitigation Plan, describing the procedures, methods, and devices to mitigate or remove contaminated soil, groundwater, and soil vapor. Upon completion, a Certified Final Project Report is also required and each document is subject to approval by EHB-SAM. For sites ½ acre or larger, Article 22A requires submittal of a Dust Control Plan that complies with Article 22B of the San Francisco Health Code. Thus, the project sponsor is required to comply with the RMP, enforceable by the RWQCB through an environmental covenant recorded against the property, as well as the current requirements of Article 22A and Article 22B of the San Francisco Health Code, enforceable by EHB-SAM.

Here, the project sponsor has completed a subsurface investigation, as the commenter acknowledges. The project sponsor has also completed a Site Mitigation Plan that addresses, among other things, appropriate disposal of soil classified as a Class I or II hazardous waste<sup>12</sup> as well as a Dust Monitoring Plan that specifies methods and monitoring to ensure that dust does not cross the property boundaries during construction.<sup>13</sup> EHB-SAM has approved the Site Mitigation Plan<sup>14</sup> and the Dust Monitoring Plan<sup>15</sup> for construction of the project in accordance with Article 22A and Article 22B. Thus, while there is a standing RMP for the project site, the RMP's implementation of Article 22A (in addition to the other measures required by the RMP), ensure that remediation of the soil and groundwater would meet current health risk standards, and that the public and site occupants and visitors would not be exposed to unacceptable levels of site contaminants during construction and operation of the project, as concluded on p. 118 of the Initial Study. (See *City of Maywood v. Los Angeles Unified School Dist.* (2012) 208 Cal.App.4th 362, 409-413 [holding the lead agency properly determined the environmental impact of construction of a school on a site with potential soil contamination was less than significant in consideration of applicable regulations governing further investigation and cleanup of the site prior to construction of the school].)

### ***Applicability of Screening Levels and Potential for Exposure to Contaminants***

As described in the DTSC Preliminary Endangerment Assessment Guidance Manual, an early step in the development of a human health risk assessment is development of a conceptual site model which involves gathering information about the site and identifying the potential for exposure to contaminants in soil, groundwater, soil vapors, and surface water.<sup>16</sup> Subsequent steps involve characterizing the potential health risks associated with exposure to the contaminants based on the concentration present and the type of exposure

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<sup>12</sup> Langan Treadwell Rollo, Site Mitigation Plan, Golden State Warriors Arena, Blocks 29-32, Mission Bay, San Francisco, California. June 2015

<sup>13</sup> Langan Treadwell Rollo. Revised Dust Monitoring Plan, Golden State Warriors Arena, Blocks 29 through 32, Mission Bay, California. October 2, 2015.

<sup>14</sup> City and County of San Francisco, Department of Public Health, Environmental Health. Site Mitigation Plan Approval, Golden State Warriors Arena, Blocks 29-32, San Francisco, CA 94158, June 17, 2015.

<sup>15</sup> City and County of San Francisco, Department of Public Health, Environmental Health. Dust Monitoring Plan Approval, Golden State Warriors Arena, Blocks 29-32, San Francisco, CA 94158, November 3, 2015.

<sup>16</sup> State of California Environmental Protection Agency, Department of Toxic Substances Control, Preliminary Endangerment Assessment Guidance Manual, January 1994 (Revised October 2015).



(e.g., inhalation, dermal contact, or ingestion). It is not necessary to evaluate risks where exposure would not occur. Where there could be exposure to contaminants, a screening risk evaluation provides a health-conservative preliminary evaluation of potential risk and hazards to potential receptors such as site occupants, visitors, and maintenance workers. The screening levels used in this type of evaluation use conservative exposure assumptions. If contaminant concentrations are below screening levels, then further analysis of health risks is not required. The presence of contaminant concentrations above screening levels does not mean that the risks associated with those chemicals are significant; rather, that means that further analysis may be warranted to determine what response activities, such as a more detailed risk assessment or site remediation, are required to address the presence of these substances. In this fashion, screening levels serve as an initial means of screening those instances in which response activities may be necessary, from those instances in which further response activities are not necessary.

The comment appears to equate ESLs with significance thresholds for purposes of determining whether hazards at the site are significant under CEQA. For CEQA purposes, the issue is not whether ESLs are exceeded, but whether the project presents a significant risk to human health or the environment in light of the presence of certain contaminants at the site at concentrations in excess of ESLs.

In the event that contaminant concentrations exceed screening levels, it may be necessary to conduct a more detailed risk assessment to more accurately characterize health risks at a contaminated site.

In this case, it is not necessary to conduct a more detailed human health risk assessment for the project, even though some site contaminant concentrations exceed screening levels as noted in the comment. That is because once the project is constructed, site occupants, commercial workers, and visitors, as well as adjacent property owners, visitors and residents, would not be exposed to chemicals in the soil or groundwater, therefore no health risk would occur. Site excavation would remove soil to a minimum depth of 12 feet as part of the site development, and clean engineered backfill would be used where needed. The site would be occupied by buildings or paved, and none of the existing soil on the site would be exposed at grade, as discussed in Responses HAZ-1 and HAZ-3 of the Responses to Comments document (Sections 13.22.2 and 13.22.4, respectively). All landscaped areas on the site would be above structures, and clean soil would be brought in for all landscaped areas on the project site. (See also *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 786, fn. 14 (explaining existing soil contamination did not even constitute “a fair argument of a significant effect on the environment... [in part because of] uncontroverted evidence that 26,000 cubic yards of soil will be excavated from... [the project site] before construction and that underground parking and the ground floor will separate residential units from any... [contaminated soil]”).) Moreover, the project would not include any residential or other uses that could include backyard gardens or other activities that could involve growing of food crops.



Similarly, the project would not expose people or the environment to risks related to contaminated groundwater (see Table 12 in comment letter O-MBA15S5) because site occupants and workers would not come into contact with the groundwater and the project is deed restricted from using groundwater for drinking water, irrigation, or any other purposes. There would be no substantial risk related to vapor intrusion because, as discussed in Response HAZ-3, only low levels of volatile organics have been identified in the soil and groundwater, based on recent testing in 2015. Indeed, as demonstrated in Tables 9 and 12 of comment letter O-MBA15S5, none of the volatile organic concentrations exceed the updated environmental screening levels for vapor intrusion.

On-site construction workers could be exposed to chemicals in the soil and groundwater during initial phases of construction (i.e., excavation of and removal of soil from the site). However, risks to construction workers would be adequately addressed by the site specific health and safety plan prepared in accordance with the construction contractor's Injury and Illness Prevention Program required by Cal/OSHA (specified in Title 8 of the California Code of Regulations, Sections 1509 and 3203) and the federal Occupational Health and Safety Administration in accordance with Title 29 of the Federal Code of Regulations, Section 1910.120. The health and safety plan, which is kept on-site and updated as necessary, establishes procedures for entering the project site, emergency response procedures, training requirements (i.e., training in accordance with Section 1910.120 of 29 Code of Federal Regulations, known as "HAZWOPER training"), specific personal hygiene requirements, and the use of monitoring equipment specifically to protect construction workers. A health and safety officer would be on site at all times during excavation to ensure that all health and safety measures are maintained and, if necessary, to direct and stop all construction activities in order to ensure compliance with the health and safety plan. Compliance with the health and safety plan would ensure that construction worker exposures to hazardous materials remain within acceptable levels.

During construction, the public (including off-site, nearby residents) would not be exposed to hazardous materials in dust emanating from construction activities because no visible dust would be allowed to cross the property boundaries in accordance with the Dust Monitoring Plan approved by the San Francisco Department of Public Health, which incorporates the requirements of Article 22B of the San Francisco Health Code as also discussed in Response HAZ-3 of the RTC document (see Section 13.22.4). The requirement to comply with Article 22B has been incorporated into the Mitigation Monitoring and Reporting Program. (See p. MMRP-58.)

Potential impacts of the project on biological resources, including impacts associated with exposure to contaminated soils and groundwater, are addressed in the Initial Study (pp. 76 to 84) as augmented and clarified in the RTC document (Section 13.19). The proposed project was determined to have a less-than-significant impact on special status species and sensitive natural communities, both terrestrial and aquatic. No special status species or sensitive natural communities are present on the site, and implementation of required stormwater controls and dust monitoring during construction would ensure that no contaminated



materials would be transported off-site through runoff or wind deposition. As stated above, during operation of the project, there would be no exposure of terrestrial wildlife and aquatic life to contaminated soils. Any ecological risk exposures to aquatic life associated with contact with groundwater are an existing condition that is not a result of the proposed project. That is, to the extent if any that aquatic life could be exposed to hazardous substances currently existing in the groundwater beneath the site, the project is not the cause of that exposure.

As discussed in the Initial Study, the 1998 FSEIR, and the RTC document, the project site has been the subject of extensive hazardous materials investigations beginning in 2001 and continuing through 2015. Soil and groundwater remediation has been conducted under the regulatory supervision of the RWQCB in response to documented soil and groundwater contamination. The SEIR (Initial Study pp. 115 to 118) provides a detailed discussion of the site investigation and remediation activities conducted at the project site. The most recent investigation is the 2015 Phase II Environmental Site Assessment completed in support of the proposed project, as described in Response HAZ-3 (Section 13.22.4 of the RTC document). The analytical results of this investigation are representative of current site conditions. Thus, the environmental review for the proposed project fully discloses the presence of hazardous materials in soil and groundwater on the project site in compliance with current regulatory standards.

Based on the site investigation and characterization described above, the risk assessment process evaluates potential risks to human and environmental receptors from exposure to contaminated soil and groundwater. But here, for the reasons already discussed, there would be no health or environmental risk of exposure to chemicals currently present in soil and groundwater at the project site during project construction or operation that would not be addressed by the required Dust Monitoring Plan and CalOSHA health and safety plan.

For the reasons more fully discussed above, an updated human health or ecological risk assessment using updated environmental screening levels is not necessary to support the conclusions reached in the SEIR Initial Study that project impacts related to hazardous materials in soil and groundwater are less than significant. The commenter does not identify any significant new information that would warrant recirculation of the SEIR.

#### ***RWQCB Oversight of RMP Implementation***

The commenter has written a letter to the California Department of Toxic Substances Control (DTSC), a copy of which was included in the appeal materials, with the view that the RWQCB (designated as the administering agency for the entire Mission Bay Redevelopment Area by the California EPA Site Designation Committee under Chapter 6.65 of the California Health and Safety Code) has failed to adequately manage risks at the project site and that the DTSC should assume oversight responsibility. The DTSC has responded that they cannot direct ongoing site investigations, sampling, or other site-related activities; they have acknowledged that the San Francisco Department of Public Health (SFDPH) is assisting the RWQCB on issues



related to Article 22A and Article 22B of the San Francisco Health Code, and they encourage the commenter to work directly with the RWQCB.<sup>17</sup>

The San Francisco Department of Health, Environmental Health Branch, Site Assessment and Mitigation (EHB-SAM) has the authority to oversee assessment and mitigation of sites that move greater than 50 cubic yards of soil in designated areas of San Francisco in accordance with the San Francisco Health Code, Article 22A and the Building Code, Section 106.3.2.4 – Hazardous Substances. The entire Mission Bay Plan Area is subject to the requirements of Article 22A, and each developer must comply with its requirements prior to obtaining a building permit. As described above, EHB-SAM requires site specific sampling to occur for each project within the Mission Bay area, compliance with the RMP, a Health and Safety Plan, and a Dust Control Plan. EHB-SAM has worked with the RWQCB since 1999 in assuring compliance with the 1999 RMP approved by the RWQCB for the project site which requires compliance with Article 22A.

In response to the commenter's letter to the DTSC, EHB-SAM has written a follow-up letter to the DTSC providing additional information regarding their role in the regulatory oversight at Mission Bay and in particular, at the project site.<sup>18</sup> In this letter, EHB-SAM describes the current requirements of Article 22A, to which the project site is subject and required to comply with. The specific requirements include an initial site assessment (Phase I report), a work plan for subsurface investigation (if needed), a site characterization report (Phase II report), and a site mitigation plan if hazardous substances are detected above California hazardous waste levels, RWQCB Environmental Screening Levels, or DTSC's California Human Health Screening Levels. The site mitigation plan must address how any detected hazardous substances above these levels will be addressed in light of the planned development. Article 22A requires any subsurface investigation to include sampling of soil, soil vapor, and groundwater. EHB-SAM supplements the 1999 Mission Bay RMP dust control requirements by also requiring compliance with Article 22B, which regulates construction-related dust emissions for projects greater than one-half acre. Article 22A also requires the owner to submit a site specific health and safety plan to EHB-SAM that addresses specific elements two weeks prior to the commencement of work and work cannot proceed until proof of preparation of this plan is received.

Since 1999, EHB-SAM has reviewed and responded to all developments within the Mission Bay Plan Area, and EHB-SAM confers with the RWQCB on all Mission Bay projects prior to issuing a certification letter indicating that compliance with Article 22A is complete. As part of this effort, EHB-SAM has reviewed numerous documents for the proposed project site, including the June 2015 Phase II Environmental Site Assessment, the June 2015 Site

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<sup>17</sup> Pettijohn, Julie C., Senior Environmental Scientist (Supervisory), Brownfields & Environmental Restoration Programs, California Department of Toxic Substances Control, 2015. Letter dated November 17, 2015 to Osha R. Meserve, Soluri Meserve.

<sup>18</sup> Cushing, Stephanie K. J., Principal Environmental Health Inspector, City and County of San Francisco Department of Public Health, Environmental Health, 2015. Letter dated November 10, 2015 to Karen Toth, Department of Toxic Substances Control, regarding Soluri Meserve Letter—October 23, 2015, Mission Bay Development Contamination, including all attachments.



Mitigation Plan, and the Dust Monitoring Plan as revised in October 2015. On June 8, 2015, EHB-SAM approved the Phase II Environmental Site Assessment. On July 13, EHB-SAM approved the Site Mitigation Plan. On November 3, 2015, EHB-SAM approved the Dust Monitoring Control Plan.

Given that DTSC has acknowledged and concurred with the ongoing oversight of the RMP, Site Mitigation Plan, Dust Monitoring Plan, and all other activities governed by Articles 22A and 22B by EHB-SAM, in coordination with the RWQCB as the lead administering agency, the current regulatory responsibilities for addressing contamination at the project site is deemed appropriate, and the commenter's letter to the DTSC is unfounded.

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### Issues Raised by Late Commenters on Naturally-occurring Asbestos

This response addresses all or part of the following comments, which are quoted below:

O-MBA16S6-7

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#### 7. Hazards and Hazardous Materials

New information and/or changes in circumstances have occurred in the area of hazards and hazardous materials that require recirculation. Although the NOP/IS determined that no additional analysis was required of these issues in the DSEIR, changed circumstances and/or new information following the 1998 SEIR requires recirculation of the DEIR that includes adequate analysis and disclosure of the Project's potentially significant impacts with respect to hazards and hazardous materials.

First, the DSEIR did not previously acknowledge the presence of asbestos on-site. Following release of the DSEIR, the Bay Area Air Quality Management District staff sampled the existing stockpiles on-site, which identified the presence of asbestos above regulatory limits. In response to this newfound asbestos in onsite soils, the applicant was required to prepare an asbestos dust monitoring plan in order to mitigate the significant public health risk. The new asbestos dust monitoring plan, dated October 9, 2015, was released to the public very recently. The newly-discovered presence of asbestos in soils onsite, not previously disclosed in the DSEIR, represents a new significant impact of the Project that requires recirculation. (*Mission Bay Alliance, Soluri Meserve, letter, November 2, 2015 [O-MBA16S6-7]*)

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#### Response to Late Comment HAZ-2: Naturally-occurring Asbestos

The commenter states that the SEIR did not acknowledge the presence of naturally occurring asbestos on-site and only prepared an Asbestos Dust Monitoring Plan in response to actions taken by the Bay Area Air Quality Management District (BAAQMD).

This statement is incorrect. Impacts associated with the potential presence of naturally-occurring asbestos in soil at the project site are addressed in Impact HZ-1 of the SEIR Initial Study (Section E.16, Hazards and Hazardous Materials, pp. 113 through 115). This analysis



acknowledges that the preliminary geotechnical investigation for the site identified cobble to boulder-sized pieces of serpentinite, a rock type known to contain naturally-occurring asbestos, in the artificial fill. While the 1998 Mission Bay FSEIR did not specifically address impacts associated with exposure to naturally-occurring asbestos during construction, the Initial Study for the proposed project fully analyzes these impacts. As stated in Impact HZ-1 and required by Mitigation Measure M-HZ-1b, the project sponsor would be required to implement a geologic investigation to determine the asbestos content of the fill materials to be excavated and implement dust control measures in accordance with the Asbestos Air Toxics Control Measure (Asbestos ATCM) if asbestos concentrations exceed 0.25 percent.

As discussed in Responses HAZ-3 and HAZ-4 of the RTC document (see Section 13.22, Hazards and Hazardous Materials), the project sponsor completed a Phase II Environmental Site Assessment of the project site in 2015 in compliance with Article 22A of the San Francisco Health Code.<sup>19</sup> The Phase II Environmental Site Assessment identified sporadic detections of chrysotile asbestos at concentrations of up to 2 percent.

As specified in Mitigation Measure M-HZ-1b, the project sponsor subsequently prepared an Asbestos Dust Monitoring Plan<sup>20</sup> in accordance with the Asbestos ATCM requirements and submitted it to the BAAQMD for approval. It specifies that during dust generating activities, daily air samples would be collected from an upwind and a downwind location at the perimeter of the site for the analysis of airborne asbestos. In the event that any sample result is greater than 16,000 structures per cubic meter of air, the construction contractor would be required to stop all earth-disturbing activities until the dust is abated and asbestos concentrations are within acceptable levels; the project sponsor, or its designee, would also notify the BAAQMD and the RWQCB (the responsible agencies) of the asbestos level. After one month of monitoring, the project sponsor would submit the monitoring data to the RWQCB for discussion of whether continued monitoring is necessary. On November 16, 2015, the BAAQMD concluded that the plan meets the requirements of the Asbestos ATCM and approved the Asbestos Dust Monitoring Plan.<sup>21</sup>

In addition to the Asbestos ATCM, the project sponsor will implement dust control measures during construction as specified in the Revised Dust Monitoring Plan<sup>22</sup> and described in Response HAZ-3 of the RTC document (See Section 13.22.5) The Revised Dust Monitoring Plan, which the San Francisco Department of Health, Environmental Health Branch, Site Assessment and Mitigation (EHB-SAM) approved on November 3, 2015, includes measures for track-out prevention and control and controlling dust from active storage piles; inactive surface areas and storage piles; unpaved roads, parking lots, and

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<sup>19</sup> Langan Treadwell Rollo, Phase II Environmental Site Assessment, Golden State Warriors Arena, Blocks 29-32, Mission Bay, San Francisco, California. June 2015.

<sup>20</sup> Langan Treadwell Rollo. Asbestos Dust Monitoring Plan, Golden State Warriors Arena, Blocks 29 through 32, Mission Bay, San Francisco, California. November 4, 2015.

<sup>21</sup> BAAQMD, Email from Kevin Vo to Randy Lee, San Francisco Bay Regional Water Quality Control Board, November 16, 2015.

<sup>22</sup> Langan Treadwell Rollo. Revised Dust Monitoring Plan, Golden State Warriors Arena, Blocks 29 through 32, Mission Bay, California. October 2, 2015.



staging areas; paved public roads; earth moving activities; off-site soil transport; and post construction activities.

The results of all dust monitoring would be made available to the RWQCB and BAAQMD upon request, including information regarding the asbestos and dust monitoring activities. Any exceedances, should they occur, and corrective actions taken, if necessary, would be included in the Closure Report prepared under the Site Mitigation Plan<sup>23</sup> described in Response HAZ-3 of the RTC document (see Section 13.22.4).

The project sponsor has begun, and must continue, to implement the above measures pertaining to naturally occurring asbestos in accordance with Mitigation Measure M-HZ-1b of the Initial Study, which mitigates impacts associated with naturally-occurring asbestos to a less-than-significant level, as discussed in Impact HZ-1 of the Initial Study.

Regarding the comment that BAAQMD visited the site and tested soil stockpiles found to contain asbestos, the EHB-SAM advises that it contacted the BAAQMD regarding the soil sampling referred to in one of the appellant's comments and found that the soil sampled was stockpiled on Block 1, and not on the project site.<sup>24</sup> The Mission Bay Development Company, and not the project sponsor, is conducting an infrastructure project on that site, and the RWQCB has required the developer of Block 1 to prepare an asbestos management plan to assure proper management of the soil. This work is not related to the proposed project or the project site, and the events described do not alter the project's requirement to comply with the Asbestos ATCM. As stated, the project sponsor has already prepared an Asbestos ATCM, which BAAQMD has approved, as part of implementation of Mitigation Measure M-HZ-1b.

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<sup>23</sup> Langan Treadwell Rollo, Site Mitigation Plan, Golden State Warriors Arena, Blocks 29-32, Mission Bay, San Francisco, California. June 2015.

<sup>24</sup> San Francisco Department of Public Health, Environmental Health. Memo from Stephanie K.J. Cushing to Tiffany Bohee, OCII. November 19, 2015.



## SECTION 19: RESPONSES TO LATE COMMENTS ON ALTERNATIVES

The comments and corresponding responses in this section cover topics described and analyzed in SEIR Chapter 7, Alternatives, as augmented in RTC document Section 13.24. These include topics related to:

- Issue ALT-1: Alternative Site Near Pier 80
- Issue ALT-2: No Project Alternative
- Issue ALT-3: Off-site Alternative

### Issues Raised by Late Commenters on Alternative Site Near Pier 80

This response addresses all or part of the following comments, which are quoted below:

O-MBA14B2-1      O-MBA22B4-5      O-MBA28L11-8      PH2-Hawley-2

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In the meantime, I write on behalf of the Alliance to present a solution to a key inadequacy of the DSEIR: the failure to analyze a potentially-feasible alternate site.

The Alliance informally disclosed its identification of Pier 80 as a feasible alternate project site to representatives of the City and the Warriors last month, and now formally requests that the OCII revise the DSEIR to analyze that site and recirculate for public and agency comment, as required when “significant new information” emerges. (Pub. Resources Code, § 21092.1; Guidelines, § 15088.5.) While Mayor Ed Lee’s response to discovery of a feasible project venue at Pier 80 has been to accuse the Alliance of being unreasonable and, further, to announce that the City has already “reached a consensus” with the Warriors and UCSF regarding the Mission Bay site (see attached press), the Alliance looks to the OCII and the City to fully explore the Pier 80 site in a revised DSEIR as mandated by state law.

As you know, the DSEIR concludes that locating the Warriors Event Center in Mission Bay would create significant environmental impacts. The impacts were recently underscored by a prominent group of UCSF faculty who are also members of the US National Academy of Sciences. Their letter to Mayor Lee (attached) expresses grave concern that because of traffic gridlock adjacent to UCSF Medical Center, “it is absolutely clear to us that the planned new Golden State Warriors Arena and Events Center in Mission Bay would severely degrade the environment for the many thousands of researchers and private sector biomedical scientists who come to work at Mission Bay each day.”

In light of project impacts, the City and OCII cannot approve the Event Center at Mission Bay if there is a feasible alternate site that would accomplish most project objectives and substantially reduce environmental problems:

Public agencies should not approve projects as proposed if there are feasible alternatives ... available which would substantially lessen the significant environmental effects of such projects.

(Pub. Resources Code, §§ 21002, 21081.)

Although the Alliance had no obligation to do so, it took the practical step of searching for a better site for the Event Center when the EIR consultants did not. Its efforts culminated in success. The Alliance discovered that a site located near San Francisco’s Pier 80 would both meet fundamental project objectives and substantially reduce environmental impacts. A potentially-feasible site that avoids or substantially lessens significant impacts of a project must be analyzed in an EIR even if it “could impede to some degree the attainment of the project objectives, or would be more costly...” (Guidelines, § 15126.6, subd. (b)). Here, the Pier 80 site in fact would not impede the project objectives nor be more costly.



As explained previously, the DSEIR failed to analyze a potentially-feasible off-site alternative as required by CEQA Guidelines section 15126.6. (See my comment letter submitted on behalf of the Alliance on July 26, 2015, pp. 8-11.)

**The Pier 80 Site.**



Located 11 blocks from the Mission Bay site, on 21+ acres well-served by transportation corridors, light rail, and buses, Pier 80's advantages include:

- The arena requires less than 7 acres and could be sited in at least three possible footprints on the 3-times-larger Pier 80 site. (One possible footprint is depicted on the site map above.)
- At the south end of the City, the site provides easy access from all directions, including the southern peninsula. The Highway 280 offramp ends at the site, and Highway 101 is 1/3 mile away. Adjacent Cesar Chavez is a major thoroughfare heavily serviced by muni buses. The Marin Street light rail abuts the site's southern boundary. There is ample access to parking.
- The Pier 80 site's internal streets are in an "H" configuration and only serve tenants of those sites. The streets within the site could easily be abandoned. No through traffic would be impacted by the arena.
- Buildings now on site, including warehouses and lumberyards, are blighted.
- The site's size and location are conducive to ancillary revitalizing development of retail, restaurants, and housing of all market types.

**Consistency with Project Objectives.** The California Supreme Court mandates that environmental impact reports analyze potentially-feasible alternatives that meet 'fundamental' objectives. (*In re Bay Delta* (2008) 43 Cal.4th 1143, pp. 1165-1166.) Project *objectives* differ from a project's *description* and are not dependent on the currently-proposed Mission Bay site. Fundamental objectives of the Warriors Event Center as recited in the DSEIR will be met at the Pier 80 site:

- Construct a state-of-the-art multi-purpose event center in San Francisco that meets NBA requirements for sports facilities, can be used year-round for sporting events and entertainment and convention purposes with events ranging in capacity from approximately 3,000-18,500, and expands opportunities for the City's tourist, hotel and convention business.



- Provide sufficient complementary mixed-use development, including office and retail uses, to create a lively local and regional visitor serving destination that is active year-round, promotes visitor activity and interest during times when the event center is not in use, provides amenities to visitors of the event center as well as the surrounding neighborhood, and allows for a financially feasible project.
- Develop a project that meets high-quality urban design and high-level sustainability standards.
- Optimize public transit, pedestrian and bicycle access to the site by locating the project within walking distance to local and regional transit hubs, and adjacent to routes that provide safe and convenient access for pedestrians and bicycles.
- Provide adequate parking and vehicular access that meets NBA and project sponsor's reasonable needs for the event center and serves the needs of project visitors and employees, while encouraging the use of transit, bicycle, and other alternative modes of transportation.
- Provide the City with a world class performing arts venue of sufficient size to attract those events which currently bypass San Francisco due to lack of a world class 3,000-4,000 seat facility.
- Develop a project that promotes environmental sustainability, transportation efficiency, greenhouse gas reduction, stormwater management using green technology, and job creation consistent with the objectives of the California Jobs and Economic Improvement Through Environmental Leadership Act
- (AB 900), as amended.

(DSEIR, pp. 3-5 to 3-6.) While the DSEIR also lists ancillary objectives solely relevant to the deeply-flawed Mission Bay site, they are not fundamental to the arena project. Only the objectives listed above are fundamental to the project, as they have been constant since the Warriors' prior selection of the now-abandoned Piers 30-32 site.

**Reduced Impacts at Pier 80 Site.** The key question and first step in DSEIR analysis of the Pier 80 site must be "whether any of the significant effects of the project would be avoided or substantially lessened" at that location. (See Pub. Resources Code, §§ 21002, 21081.) A wide range of significant impacts of the Warriors' Event Center will be eliminated or reduced at the ample Pier 80 site, without compromising any fundamental project objectives.

For example:

- Project-induced increases in traffic impacts would not combine with the San Francisco Giants' baseball game traffic to the same extreme extent.
- Event Center traffic would not interfere with patients' emergency access to UCSF Medical Center.
- Land use impacts due to the Event Center's incompatibility with long-standing plans for Mission Bay as a hub for biosciences would be avoided.
- Vibrations affecting sensitive research equipment at UCSF would be avoided.

As repeatedly held by the California Supreme Court, project alternatives form the core of every EIR. Objective analysis of the feasibility of siting the Warriors Event Center near Pier 80 must now occur in CEQA's prescribed public process to foster informed decision-making and public participation. Otherwise, the DSEIR will not yet have provided a good-faith effort at full disclosure of a range of reasonable project alternatives, as mandated by CEQA Guidelines section 15126.6, subd.(a) and interpreted by a substantial body of case law.



Thank you for your attention to this request. Please advise whether the OCII will agree to revise and recirculate the DSEIR to study the Pier 80 site. (*Mission Bay Alliance, Susan Brandt-Hawley, letter, October 13, 2015 [O-MBA14B2-1]*)

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**b. Alternatives.** The Alliance commented on the SEIR's inadequate analysis of the 'no project' alternative and failure to include a potentially-feasible off-site alternative. Following the SEIR comment period, the Alliance informed OCII that it had located a feasible off-site alternative that met project objectives and reduced impacts, and requested its consideration. This should still happen, and the site at Pier 80 should be considered in a revised and recirculated EIR.

In response, the Final SEIR offers rote statements like "CEQA does not require analysis of 'every imaginable alternative' but rather it gives agencies the flexibility to eliminate certain alternatives that either do not reduce environmental impacts or do not further the project's main objectives." (*Mission Bay Alliance, Susan Brandt-Hawley, letter, November 3, 2015 [O-MBA22B4-5]*)

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6. The Commission cannot find that feasible alternatives that would substantially reduce the Project's significant impacts have been adopted. The SEIR does not analyze the alternate site proposed by the Alliance near Pier 80, and did not circulate that analysis for public comment. Neither OCH nor this Commission has the basis to make conclusory findings rejecting the alternative. Among the relevant facts not considered in the findings is that the site is three times as large as would be required for the Event Center project and need not utilize any of the City-owned property nor any particular configuration of the privately-owned lots should there be an unwilling seller. There is no evidence provided that the site could not be acquired within a reasonable time period.

Case law confirms that assuring a site's consistency with city plans and zoning is within the City's power. Similarly, the scheduling of transportation services to the site can be increased, and the findings provide no studies to back up conclusory statements regarding traffic, air quality, hydrology, or water quality impacts. Since only a third of the site is needed to accommodate the event center, all of the impacts (if shown to have concern after sufficient technical review) can be avoided or mitigated. As stated in the Alliance letter to OCH that proposes this site for consideration as an alternative, here incorporated by reference, the SEIR failed to consider a potentially-feasible off-site alternative and must be revised and recirculated to do so before findings of infeasibility may be considered or adopted. The site suggested by the Alliance is potentially feasible and deserving of study. (*Mission Bay Alliance, Thomas N. Lippe, letter, November 9, 2015 [O-MBA28L11-8]*)

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Well, thank you very much for your attention. And we ask that you continue this, look at all the issues that have been raised. And, again, the public is looking to you to make sure whatever is approved -- we believe, should be at a -- certainly, at another location -- is fully resolved and not go forward and create environmental problems (*Susan Brandt-Hawley, Transcript, November 3, 2015 [PH2-Hawley-2]*)

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### Response to Late Comment ALT-1: Alternative Site Near Pier 80

The commenter proposes a new alternative site near Pier 80 and states that it should be included for analysis in the SEIR. The comment alleges that the Draft SEIR is inadequate because it did not analyze this proposed alternate site. Please note that the Draft SEIR does include a discussion of the Pier 80 or the India Basin Area in Table 7-28 in Chapter 7 in the



discussion in Section 7.5.2 of “Alternatives Considered But Rejected.” The new alternative site proposed by the commenter appears to consist of approximately six or seven blocks, divided into about 12 lots, located across the street from Pier 80. These parcels are referred to in the comment as the “Pier 80” site, but in light of the discussion in the Draft SEIR of an alternative called “Pier 80” that was considered but rejected, to avoid confusion, the MBA proposed alternate site will be referred to in this response as the “MBA Alternative Site.”

The range of alternatives considered in the SEIR includes three alternatives: two alternatives at the project site—the No Project Alternative as required by CEQA Guidelines Section 15126.6(e), and the Reduced Intensity Alternative—and one off-site alternative at Piers 30-32 and Seawall Lot 330. Together, OCII and Planning Department staff determined that the three identified alternatives present a reasonable range of alternatives adequate to inform decision makers.

The SEIR presents and analyzes a reasonable range of alternatives, consistent with CEQA Guidelines Section 15126.6, subdivision (a), which states:

An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible.

CEQA does not require analysis of “every imaginable alternative.” (*Rio Vista Farm Bureau Center v. County of Solana* (1992) 5 Cal.App.4th 351, 376) Rather, CEQA only requires that an EIR include a “reasonable range of potentially feasible alternatives” that would “feasibly attain most of the basic objectives of the project” and “would avoid or substantially lessen any of the significant effects of the project.” (CEQA Guidelines, § 15126.6, subd. (a).) Since the directive is to consider alternatives that would “feasibly attain” most of the project objectives, an “EIR need not consider ... alternatives that are infeasible.” (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 981.)

Further, a potential alternative does not need to be analyzed in an EIR if it would not “avoid significant environmental impacts” (CEQA Guidelines, § 15126.6, subd. (c)) or would not achieve primary project objectives. (See *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1507-1508 [upholding the County’s conclusion that the reduced density alternative was infeasible since it met some but not all of the project objectives].) See Section 13.24.2 of the RTC document for further discussion of the alternatives selection process used in the SEIR.

For the reasons discussed below, and those presented in OCII’s CEQA Findings, the MBA Alternative Site is not a feasible alternative and would not avoid significant impacts of the proposed project.



For purposes of alternatives analysis under CEQA, “feasibility” is defined as follows:

*Feasibility.* Among other factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent).

(CEQA Guidelines, § 15126.6, subd. (f)(1).)

Public Resources Code, section 21061.1 defines “feasible” to mean “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, legal, and technological factors.” CEQA Guidelines section 15364 adds another factor: “legal” considerations. (See also *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 565; *Jones v. Regents of University of California* (2010) 183 Cal.App.4th 818, 825.)

As noted previously, the concept of “feasibility” also encompasses the question of whether a particular alternative promotes the underlying goals and objectives of a project. (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417; *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1506-1509 [court upholds CEQA findings rejecting alternatives in reliance on applicant’s project objectives]; see also *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1001 (CNPS) [“an alternative ‘may be found infeasible on the ground it is inconsistent with the project objectives as long as the finding is supported by substantial evidence in the record’”] (quoting 1 Kostka & Zischke, Practice Under the Cal. Environmental Quality Act [Cont.Ed.Bar 2d ed. 2009], § 17.30, p. 825); *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165, 1166 [“[i]n the CALFED program, feasibility is strongly linked to achievement of each of the primary program objectives”; “a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need not study alternatives that cannot achieve that basic goal”].) Moreover, “‘feasibility’ under CEQA encompasses ‘desirability’ to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors.” (*City of Del Mar, supra*, 133 Cal.App.3d at p. 417; see also CNPS, *supra*, 177 Cal.App.4th at p. 1001 [“an alternative that ‘is impractical or undesirable from a policy standpoint’ may be rejected as infeasible”] [quoting 2 Kostka & Zischke, Practice Under the Cal. Environmental Quality Act, *supra*, § 17.29, p. 824]; *San Diego Citizenry Group v. County of San Diego* (2013) 219 Cal.App.4th 1, 17.)

The MBA Alternative Site is not feasible for numerous reasons. The parcels located in the area shown on the diagram included in Comment O-MBA14B2-1 as the MBA Alternative Site are governed by the provisions of the City Planning Code and are zoned PDR-2. Planning Code Section 210.3 describes PDR-2 as follows:



**PDR 2 District: Core Production, Distribution, and Repair.** The Intent of this District is to encourage the introduction, intensification, and protection of a wide range of light and contemporary industrial activities. Thus, this District prohibits new housing, large office developments, large-scale retail, and the heaviest of industrial uses, such as incinerators. Generally, all other uses are permitted. The conservation of existing flexible industrial buildings is also encouraged. This District permits certain non-industrial non-residential uses, including small-scale Retail and Office, Entertainment, certain institutions, and similar uses that would not create conflicts with the primary industrial uses or are compatible with the operational characteristics of businesses in the area. Light Industrial uses in this District may be conducted entirely within an enclosed structure, partly within enclosed structures, or some functions may occur entirely in open areas. These uses may require trucking activity multiple times per day, including trucks with up to 18 wheels or more, and occurring at any time of the day or night. As part of their daily operations, PDR activities in these areas may emit noises, vibrations, odors, and other emissions, as permitted by law. Within the requirements of local, state, and federal health and safety regulations, and within the stipulation of this Code, which may impose additional use size maximums and minimum distance requirements on certain activities, raw materials used for production, manufacturing, repair, storage, research, and distribution may be stored on site and may include chemical, biological, and other hazardous, explosive, or flammable materials. In considering any new land use not contemplated in this District, the Zoning Administrator shall take into account the intent of this District as expressed in this Section and in the General Plan.

While the event center component of the proposed project may be permitted under the existing zoning, the proposed new office components would not be permitted without a rezoning of the parcels in the MBA Alternative Site to a use district that permits office uses (Planning Code Section 210.3A). Any rezoning would require approval of an ordinance amending the Planning Code. The office component of the proposed project would also be required to seek and obtain a new office allocation for such uses in accordance with Proposition M and Planning Code Section 321. These sites would not have the benefit, under Section 321, of any priority treatment in seeking such office allocation that is currently provided under Section 304.11 of the Mission Bay South Redevelopment Plan.

The existing height limits applicable to the parcels in the MBA Alternative Site range from 40 feet to 68 feet. The proposed event center, in contrast, would be approximately 135 feet in height and the two proposed office towers of the proposed project are 160 feet each. Thus, the development would not be permitted without approval of an ordinance rezoning the height limits in the Planning Code and the Height Maps in order to accommodate the proposed event center and office buildings.

The allowable Floor Area Ratio (FAR) on the site ranges from 3:1 to 5:1. The calculation of floor area for purposes of determining the permitted FAR under the City Planning Code would include almost all gross floor area in the building.



Planning Code Section 102 defines gross floor area in part as:

Floor Area, Gross. In Districts other than C-3, the sum of the gross areas of the several floors of a building or buildings, measured from the exterior faces of exterior walls or from the centerlines of walls separating two buildings. Where columns are outside and separated from an exterior wall (curtain wall) that encloses the building space or are otherwise so arranged that the curtain wall is clearly separate from the structural members, the exterior face of the curtain wall shall be the line of measurement, and the area of the columns themselves at each floor shall also be counted.

Section 102 defines Floor Area Ratio as:

Floor Area Ratio. The ratio of the Gross Floor Area of all the buildings on a lot to the area of the lot. In cases in which portions of the gross floor area of a building project horizontally beyond the lot lines, all such projecting gross floor area shall also be included in determining the floor area ratio.

Without access to lot sizes or more specific information regarding the parcels in the MBA Alternative Site, it is difficult to assess how the potential FAR calculation may compare to the existing FAR limitations on the site. However, it is likely that as a result of these limitations, the site would also require a rezoning of permitted FAR in order to accommodate the project.

With the information provided to date by the Mission Bay Alliance, neither OCII nor the Planning Department has been able to ascertain with certainty the identity or ownership of all the parcels included in the MBA Alternative Site. However, it is evident that the property consists of approximately 12 separate lots, about half of which are owned by three to four different private parties. These privately owned parcels are occupied by several active businesses operating out of low-level industrial/warehouse buildings, and are not under the site control of the project sponsor. The other, larger lots are controlled by the City and the Port of San Francisco. The 1399 Marin Street property (at the southeast corner of Marin and Indiana Streets) is owned by the Port, but at less than four acres, is too small to accommodate even just the Event Center portion of the proposed project.

This site would also be subject to the Proposition B height limit restriction, which would require voter approval to increase the allowable height.

Pursuant to a memorandum of understanding with the Port, the San Francisco Municipal Transportation Agency (SFMTA) currently uses the 1399 Marin property as a bus acceptance facility, where new vehicles are received and outfitted with necessary equipment (e.g., fare boxes) before they are integrated into SFMTA's fleet. In addition, SFMTA stores vehicles and other equipment at the property, due to the growth of its fleets and overcrowding at its other facilities. Thus, given that this property is currently in active use, it is not feasible to expect that this property could be available for the proposed project.



The 1301 Cesar Chavez property (at the southwest corner of Cesar Chavez and Indiana Streets) is the site of SFMTA's "Islais Creek Motor Coach Facility." SFMTA has been planning this project, and incrementally acquiring the properties at 1301 Cesar Chavez, since 1990. The site is now almost entirely owned by SFMTA, with the exception of two smaller lots under and adjacent to the I-280 freeway, which are owned by Caltrans. SFMTA is still negotiating with Caltrans for the purchase and lease of these last lots. The \$129 million project is being constructed in two phases: Phase I, which was completed in 2013, consisted of site preparation and construction of a new fuel and wash building, as well as bus parking facilities; Phase II, which recently broke ground at the southeast corner of the site, will include a maintenance and operations building with vehicle hoists to service buses, a brake shop, parts storeroom, administrative offices, and a community meeting space. Once complete, the Islais Creek facility will be among SFMTA's largest facilities, capable of storing and servicing at least 165 buses and facilitating 300 employees, with 24/7 operations. Because the Islais Creek facility will replace older, outdated, or temporary SFMTA facilities, and will accommodate such a significant portion of SFMTA's fleet, SFMTA considers these properties to be "critical" to its mission.

Thus, the MBA Alternative Site is not a feasible alternative, as it could not be made available for this project within a reasonable period of time, taking into account economic factors, legal factors, and existing uses and development on the site. The Planning Code would need to be amended to allow this use and site assembly would be required. Voter approval of a height increase would be required to use the Port property for this project.

It should also be noted that the location, while adjacent to the Third Street light rail, is in the same general vicinity as the Pier 80 alternative considered but rejected in the Draft SEIR. Both that alternative and the MBA Alternative Site are less well served by Muni and regional transit than the proposed project site, located farther from locations accessible via bicycle and walk modes than the proposed project site, and thus, access to these alternative locations would be primarily via auto. The T Third light rail line is the primary Muni route that would serve the MBA Alternative Site since there are no Muni bus routes on Cesar Chavez Street in the project vicinity. The 19 Polk, with a connection at Evans/Connecticut Streets, runs north to Market Street and connects with the Civic Center BART station, but has limited service during the weekday and Saturday evening and late evening peak periods.

The closest BART station is at 24th Street and Mission Street, approximately two miles to the west. Due to the limited east-west street connections, special event shuttle bus service to/from the BART station would be needed, which would have to follow Cesar Chavez Street, overlapping with project vehicles.

The closest Caltrain station is at 22nd Street, under the I-280 freeway, approximately two thirds of a mile to the north. It offers less train service (i.e., fewer trains stop there) than the Caltrain station at Fourth/King Streets. The 22nd Street station is an intermediate station, as opposed to the line terminal at Fourth/King Streets, so the opportunities for providing



special train service are limited. Special event shuttle bus service would have to travel on Pennsylvania and Indiana Streets, competing with project-related traffic.

Primary vehicular access would be via Cesar Chavez Street (from the northwest and west, including those traveling on U.S. 101 from the North Bay and East Bay areas), on Third Street (from the north and south, including those traveling north on U.S. 101 and exiting at the Third Street off-ramp near Candlestick), and on I-280 (mostly from the southwest and south, from the Peninsula and South Bay). The limited number of east-west and north-south streets connecting with the rest of the City and the freeway system would result in longer duration of congestion prior to and after an event.

Because more attendees would be expected to drive to the MBA Alternative Site due to the more limited transit options, the parking demand would be expected to exceed the demand of approximately 3,900 spaces for a sold out game or concert at the event center at the proposed project's site in Mission Bay. Specifically, it is estimated that more than 2,000 additional parking spaces would be needed to accommodate the expected demand at the MBA Alternative Site. The area in the vicinity of the MBA Alternative Site lacks major off-street parking facilities capable of accommodating the estimated project demand. In addition to potential project-provided parking (which for purposes of a rough estimate is assumed to be about 900 spaces), only Pier 80 (about 800 spaces) and the 19th Street site at Illinois Street, south of Crane Cove Park (about 250 spaces) have been identified as potential additional parking locations. These three facilities combined would provide about 1,950 parking spaces, and accommodate about half of the total parking demand.

Because more attendees would drive to the MBA Alternative Site, locating the project at this site would result in increased congestion on regional facilities and Third Street prior to and after an event.

Therefore, transportation and associated air quality and noise impacts would likely be the same or more severe than those under the project.

In addition, unlike the proposed project site, the MBA Alternative Site is located in an Air Pollution Exposure Zone. Consequently, locating the proposed project at the MBA Alternative Site would likely result in substantially more severe air quality health risk impacts than the proposed project.

The MBA Alternative Site is located directly adjacent to the Islais Creek Channel, and thus would have a greater potential to result in adverse impacts on water quality and aquatic resources due to stormwater runoff into the Bay during both project construction and operation.

Unlike the proposed project site, the MBA Alternative Site is located within the 100-year flood zone. As such, locating the proposed project at this site would expose people and structures to a greater risk of loss, injury or death due to flooding than the proposed project. Moreover, because it is directly adjacent to the Islais Creek Channel and is at a low elevation



relative to sea level, the MBA Alternative Site would be more vulnerable to flooding in the future due to sea level rise and is more vulnerable to tsunami risk than the proposed project site.

Aside from conclusory statements, the comment provides no evidence that any significant environmental impacts identified in the SEIR would be avoided or substantially lessened through the MBA Alternative Site.

Thus, for the reasons stated above, the MBA Alternative Site would not avoid significant impacts of the proposed project, but would likely result in substantially more severe impacts.

In sum, the MBA Alternative Site is not a feasible alternative and would not substantially reduce or avoid significant environmental impacts identified in the SEIR. In fact, as noted above, locating the project at the MBA Alternative Site would likely result in new and substantially more severe significant impacts than those of the proposed project. Furthermore, the alternatives analysis in the SEIR provides an analysis of a reasonable range of alternatives in sufficient detail to allow decision makers to make informed decisions. Therefore, the MBA Alternative Site does not need to be analyzed in the SEIR. In approving the project, the OCII Commission adopted CEQA Findings that find, consistent with the above response, that the MBA Alternative Site is not a feasible project alternative. (OCII CEQA Findings, pp. 71-73.)

For additional information regarding the MBA Alternative Site, and reasons for selecting or rejecting alternatives, see OCII's CEQA Findings, Section V and Section 3, Response to Late Comment ERP-3, of this Exhibit D. The OCII Commission's finding that the Alliance's proposed alternative location near Pier 80 is not feasible is supported by substantial evidence.

The comment also states that the MBA Alternative Site constitutes "significant new information" requiring recirculation of the Draft SEIR. That is not accurate. As explained in CEQA Guidelines section 15088.5, recirculation of an EIR is required only when "significant new information" is added to the EIR after public notice is given of the availability of the Draft EIR for public review but prior to certification of the Final EIR. Examples of "significant new information" are provided in the CEQA Guidelines including: "A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it." (CEQA Guidelines, § 15088.5, subd. (a)(3).) As explained above, the MBA Alternative Site is not feasible and would not clearly lessen the significant environmental impacts of the project. Therefore, recirculation of the SEIR is not required. (See *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 569-570 [when an alternative is proposed after the close of the public comment period, an agency may delineate the reasons for rejecting the alternative as infeasible in the agency's findings].)



## Issues Raised by Late Commenters on No Project Alternative

This response addresses all or part of the following comments, which are quoted below:

O-MBA22B4-6

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The Alliance agrees, but the statement neither addresses nor cures this particular EIR's failure to analyze the 'no project' alternative or a potentially-feasible off-site location.

As to the 'no project' alternative, the Alliance finds the Responses to Comments again inadequate. Among other things, the responses both dismiss and acknowledge that the UCSF-owned Block 33 is eligible for a tower. That opportunity remains relevant to the discussion as it impacts the extent of reasonably foreseeable development at the Event Center project site if the project does not proceed. The EIR responses also continue to overestimate the traffic impacts of 'no project' by speculative assumptions as to the parking likely to be provided by developers for proposed retail uses. (*Mission Bay Alliance, Susan Brandt-Hawley, letter, November 3, 2015 [O-MBA22B4-6]*)

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## Response to Late Comment ALT-2: No Project Alternative

The commenter raises the same issues regarding the No Project Alternative that were previously submitted during the public review period. See RTC document, Comment O-MBA6B1-12, which was addressed in the RTC document Section 13.24.3, under Response ALT-2. The commenter states that this response is inadequate because "the responses both dismiss and acknowledge that the UCSF-owned Block 33 is eligible for a tower" and that the responses overestimate the traffic impacts of "no project" based on speculative assumptions as to the parking likely to be provided by developers for proposed retail uses.

As discussed in the RTC document Section 13.24.3, under Response ALT-2, the fact that the UCSF-owned Block 33, located directly south of the project site, is eligible for a tower does not affect the assumptions used for the No Project Alternative. As noted in the SEIR, Chapter 7, Section 7.3.1, the No Project Alternative assumes there would be one tower 160 feet in height located at Block 29. The Design for Development authorization for total number of towers would be unaffected.

Similarly, the SEIR Section 7.3.1 as augmented by RTC Response ALT-2, provides a reasonable estimate of parking spaces that could be provided, with the number of spaces within the minimum and maximum range of allowable parking under the Design for Development. In addition, the estimates of traffic generated by the No Project Alternative were not based on the number of assumed parking spaces, but rather based on a travel demand analysis of the proposed gross square footage of uses. Consequently, the No Project Alternative does not overestimate resultant traffic impacts, or associated traffic related air quality and noise effects.

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## Issues Raised by Late Commenters on Off-site Alternative

This response addresses all or part of the following comments, which are quoted below:

O-MBA22B4-7

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The EIR's refusal to consider a potentially-feasible off-site alternative violates CEQA, which repeatedly confirms that consideration of alternatives is the key to reducing project impacts while accomplishing objectives. The SEIR responses to this issue treat CEQA like a game, tangentially acknowledging that the initial site at Piers 30-32 was too expensive and would require a public vote for a site so unpopular that the Warriors abandoned it, but then repeating over and over that the site is at least "potentially feasible for purposes of this SEIR." (Responses, 13.24-8.) In other words, the rejected site is not feasible in the real world, but can somehow be considered adequate to comply with CEQA under the substantial evidence standard of review. Not so, both as to the site and standard of review. The infeasibility of the site is reflected in the CEQA findings that dismiss it, citing its uncertain approval and significantly more severe impacts than the Mission Bay project. (*Mission Bay Alliance, Susan Brandt-Hawley, letter, November 3, 2015 [O-MBA22B4-7]*)

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## Response to Late Comment ALT-3: Off-site Alternative

The alternatives analysis in the SEIR is fully compliant with CEQA. As described in SEIR Chapter 7, as augmented by RTC Section 13.24, the SEIR analyzed three alternatives in detail—the No Project Alternative, the Reduced Intensity Alternative, and the Off-site Alternative at Piers 30-32 and Seawall Lot 330—as well as considered 12 other off-site locations, which were rejected from further analysis due to their infeasibility, their inability to meet the basic project objectives, and/or their inability to avoid or lessen significant impacts identified for the proposed project (or would have the potential to result in new and potentially more severe impacts).

It should be noted that CEQA does not require analysis of off-site alternatives for all projects. The CEQA Guidelines provide that "[a]n EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." (CEQA Guidelines, § 15126.6, subd. (a), italics added.) The CEQA Guideline's use of the disjunctive "or" implies that a lead agency has discretion "to evaluate on-site alternatives, off-site alternatives, or both." (*Mira Mar Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 491.) Thus, the EIR was not required to include an off-site alternative to comply with CEQA. (See e.g., *Jones v. Regents of the Univ. of Cal.* (2010) 183 Cal.App.4th 818, 827-828 [upholding EIR that excluded off-site alternative based on project objectives]; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th at pp. 990-995 [upholding EIR that did not include an off-site alternative because such an alternative would not meet the project's basic objectives]; *Save Our Residential Environment v. City of West Hollywood* (1992) Cal.App.4th 1745, 1752 [upholding EIR that did not evaluate an off-site alternative where there was no suitably available alternative location for the project]; *Save*



*San Francisco Bay Assn. v. San Francisco Bay Conservation* (1992) 10 Cal.App.4th 908 [EIR did not need to consider off-site alternative proposed by project opponents].) Nevertheless, OCII considered numerous potential off-site alternatives and the Off-site Alternative at Piers 30-32 and Seawall Lot 330 was analyzed in the DSEIR because it was determined to be potentially feasible and would reduce or avoid significant environmental impacts. The commenter questions the feasibility of the Off-site Alternative at Piers 30-32 and Seawall Lot 330 due to its history of public controversy when the event center was previously proposed to be constructed at this site. However, as described in the SEIR (pp. 7-14 to 7-15), Piers 30-32 and Seawall Lot 330 was considered to be a potentially feasible location for an off-site alternative due to its site suitability (based on the existing studies that have been conducted for this site), proximity to the downtown and local/regional transit services, its previous history of potential economic viability, the potential ability of the project sponsor to reasonably acquire, control, or otherwise have access to this site (based on previous negotiations and discussions with the Port of San Francisco), and the potential for this alternative to avoid or substantially lessen the project's significant environmental effects. Furthermore, as explained in the SEIR (p. 7-1) and CEQA Guidelines, Section 15126.6(a), the purpose of the alternative analysis is to "evaluate a reasonable range of alternatives to the proposed project that would feasibly attain most of the project's basic objectives, but that would avoid or substantially lessen any identified significant adverse environmental effects of the project." As explained in the SEIR, the off-site alternative would meet basic project objectives (p. 7-19 [Table 7-2]) and would avoid or lessen several of the site-specific significant and unavoidable impacts of the proposed project. See SEIR, pp. 7-67 to 7-99, for a detailed discussion of the off-site alternative and its potential impacts.

Further an EIR must analyze alternatives that are considered "potentially feasible." (CEQA Guidelines, § 15126.6, subd. (a).) Only the decision makers, here the OCII Commission, can determine whether an alternative is actually feasible. (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 981, 999; see also *Watsonville Pilots Assn. v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1087 ["While the lead agency may ultimately determine that the potentially feasible alternatives are not actually feasible due to other considerations, the actual infeasibility of a potential alternative does not preclude the inclusion of that alternative among the reasonable range of alternatives."].) Thus, including the Off-site Alternative at Piers 30-32 and Seawall Lot 330 among the reasonable range of alternatives analyzed in the SEIR was appropriate because it was a potentially feasible alternative.

The fact that the OCII Commission ultimately concluded that the Off-site Alternative at Piers 30-32 and Seawall Lot 330 is infeasible does not render its inclusion in the SEIR inappropriate. As explained in *South County Citizens for Smart Growth v. County of Nevada* (2013) 221 Cal.App.4th 316, 327:

The determination of whether to include an alternative during the scoping process is based on whether the alternative is *potentially* feasible, and the EIR "is required to make an in-depth discussion of those alternatives identified as at least potentially



feasible.” Differing factors come into play when the final decision on project approval is made; at that juncture the decisionmaking body evaluates whether the alternatives are *actually* feasible. “[T]he decision makers may reject as infeasible alternatives that were identified in the EIR as potentially feasible.”

(*Id.* at p. 327, internal citations omitted (original emphasis).)



ATTACHMENT A

Economic & Planning Systems, Inc.,  
*Mission Bay Blocks 29-32 Office Alternative, April 20, 2015*



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**Table 1**  
**Project Description Summary**  
**Alternative to Multi-Purpose Venue**

Item	Total
Retail	30,000 sq.ft.
Office	1,026,000 sq.ft.
Open Space	3.2 acres

Source: City of San Francisco OEWD; Economic & Planning Systems, Inc.



**Table 2**  
**Annual Fiscal Results Summary, Ongoing Revenues (2015 dollars)**  
**Alternative to Multi-Purpose Venue**

Item	No Arena Scenario
<b>Annual General Revenue</b>	
Property Tax	\$517,000
Property Tax in Lieu of VLF	\$528,000
Sales Tax	\$68,000
Hotel/Motel Tax	\$0
Parking Tax	\$337,000
Stadium Admission Tax	\$0
Gross Receipts Tax:	\$3,576,000
Utility User Tax	<u>\$227,000</u>
Subtotal	\$5,253,000
<b>Annual Other Dedicated and Restricted Revenue</b>	
Special Fund Property Taxes (Children's, Library, and Open Space)	\$84,000
Public Safety Sales Tax	\$34,000
SF County Transportation Authority Sales Tax	\$34,000
Parking Tax (MTA 80%)	<u>\$1,349,000</u>
Subtotal	\$1,501,000
<b>Total, General plus Other Dedicated and Restricted Revenues</b>	<b>\$6,754,000</b>

\* Numbers are rounded to the nearest thousand.



**Table A-1**  
**San Francisco Revenue Summary (2015 dollars)**  
**Alternative to Multi-Purpose Venue**

Item	Calculation Reference	Annual Total
<b>Annual General Revenue</b>		
Property Tax (General Fund)	Table A-4	\$516,599
Property Tax in Lieu of VLF	Table A-5	\$528,021
Sales Tax	Table A-7	\$67,500
Hotel/Motel Tax (General Fund)		\$0
Parking Tax	Table A-8	\$337,260
Stadium Admissions Tax		\$0
Gross Receipts Tax:	Table A-9	\$3,576,243
Utility User Tax	Table A-10	<u>\$227,304</u>
Subtotal		\$5,252,927
<b>Annual Other Dedicated and Restricted Revenue</b>		
Special Fund Property Taxes (Children's, Library, and Open Space)	Table A-4	\$84,000
Public Safety Sales Tax	Table A-7	\$33,750
San Francisco County Transportation Authority Sales Tax	Table A-7	\$33,750
MTA Parking Tax	Table A-8	<u>\$1,349,040</u>
Subtotal		\$1,500,540
<b>TOTAL REVENUES</b>		<b>\$6,753,467</b>

(1) Reflects additional tax generated by the Multi-Purpose Venue visitors off-site from additional hotel.

Source: Economic & Planning Systems, Inc.



**Table A-2**  
**Employment Estimates**  
**Alternative to Multi-Purpose Venue**

Item	Assumption	FTE/Total \$	Source
Retail	273 sq.ft. per FTE	110	
Office	268 sq.ft. per FTE	3,828	
Parking	270 spaces per FTE	4	HPS FIA
Total Permanent Employment On-site		<b>3,942</b>	
<b>Project Construction</b>			
Total Development Cost (1)		\$710,855,712	
Labor Portion of Construction Cost	20% of construction value	\$142,171,142.35	
Construction: Job-Years (temporary) (2)	\$77,500 average annual wage	<b>1,834</b>	California Economic Development Department

(1) Construction cost estimates include infrastructure and consist of direct and indirect costs (planning, design, etc.).

(2) Wage based on the average annual construction annual salaries reported for the San Francisco MSA by EDD.

Sources: Economic & Planning Systems, Inc.



**Table A-3**  
**San Francisco City One-Time Fee Revenue Estimate**  
**Multi-Purpose Venue**

Item	Office	Retail	TOTAL
New Gross Building Area (sq.ft.)	1,026,000	30,000	
<b>City Fees</b> (per gross building sq.ft.) (1)			
Child Care	\$1.21	\$0.00	<b>\$1,241,460</b>
Transit Impact Development Fee (\$411.3) (2)	\$8.87	\$14.59	<b><u>\$9,538,320</u></b>
<b>Total Development Impact Fee</b>	\$10,342,080	\$437,700	<b>\$10,779,780</b>
<b>Other In-Lieu Impact Fees (3)</b>			
<b>One-Time Transfer Tax</b>	see Table A-6		<b>\$4,200,000</b>

(1) All impact fees are effective as of 1/1/15 and are subject to change based on final project scope of project.

(2) The office fee reflects the increment between the current maximum and the baseline \$5 per square foot fee established with the Redevelopment Plan.

(3) Include public art installation fee of 1% of construction value and street trees fees. These fees can be offset by the developer's



**Table A-4**  
**Property Tax Estimate**  
**Alternative to Multi-Purpose Venue**

Item	Assumptions	Total
<b>Secured Assessed Value (1)</b>		
Retail		\$11,025,000
Office		\$595,080,000
Parking		<u>\$36,960,000</u>
<b>New Taxable Value</b>		<b>\$643,065,000</b>
Gross Secured Possessory Interest/Property Tax	1.0% of new AV	\$6,430,650
Unsecured Tax From Other Uses (2)		<u>\$11,025</u>
Subtotal		\$6,441,675
(less) Existing Taxes (3)		(\$1,795,169)
Total		\$4,646,506
<b>Property Tax</b>		
Tier 1 Property Tax Pass Through (4)	20.0%	929,301
Tier 2 Property Tax Pass Through (4)	<u>16.8%</u>	<u>780,613</u>
Tier 1 and 2 Property Tax Pass Throughs (4)	36.8%	1,709,914
Net New General Fund Share (after ERAF)	55.59% property tax tier 1 pass through	<b>\$516,599</b>
Special Funds (5)	9.00% property tax tier 1 pass through	<b>\$83,637</b>
SF Unified School District	7.70% property tax pass through	<b>\$131,663</b>
Affordable Housing Set Aside		<b>\$929,301</b>



#### Notes to Table A-4

Note: Total assessed value slightly less than total development costs due to the exclusion of "soft costs" from assessed value; this is a conservative assumption.

- (1) Initial secured assessed valuation is based on the market values of \$580 per square foot for office space, \$368 per square foot for retail, and construction cost of \$45,000 per space for parking. Assessment is assumed to include the existing land value.
- (2) Assumed at 10% of retail assessed value.
- (3) Reflects the existing property tax based on the purchase price from Salesforce inflated by 2% a year over 2 years.
- (4) While the pass throughs increase above 20% in tiers 2 and 3 per AB1290, the City only receives the share of Tier 1 pass through. The City's share of Tiers 2 and 3 goes to the redevelopment agency successor (02.13.13 interview with the SF Controller's Office). Mission Bay South redevelopment area is currently in Tier 2 with 36.8% generated in pass throughs.
- (5) Special funds include property tax set aside for Library, Open Space, and Children's Fund. This reflects the recent approval of Measure C, which will start shifting the General Fund allocation to Children's Fund by 0.25% increments of pass throughs starting in FY15-16 until reaching 55.59% of the 1% base property tax, a reduction from the current 56.59%. These allocations have not changed from the dissolution of redevelopment with proceeds that would have been received by the redevelopment agency now received by the successor agency (the Office of Community Investment and Infrastructure).

Sources: City of San Francisco; Economic & Planning Systems, Inc.



**Table A-5**  
**Property Tax in Lieu of VLF Estimate**  
**Alternative to Multi-Purpose Venue**

Item	Total
Citywide Total Assessed Value (millions \$)	\$172,489
Total Assessed Value of Project (see property tax calculation)	\$643.07
(less) Existing Value	<u>-\$179.52</u>
Net Increase in Project Assessed Value (millions \$)	\$463.55
Growth in Citywide AV due to Project	0.269%
Total Property Tax in Lieu of Vehicle License Fee (VLF) (FY2014-15)	\$196,480,000
<b>Net New Property Tax in Lieu of VLF</b>	<b>\$528,021</b>

Sources: Economic & Planning Systems, Inc.



**Table A-6**  
**Property Transfer Tax**  
**Alternative to Multi-Purpose Venue**

Item	Assumptions	Total
<hr/>		
<u>One-Time Transfer Tax</u>		
Estimated Land Sale (1)		\$172,546,000
<b>One-time Transfer Tax (2)</b>	\$24.34 per \$1,000 value	<b>\$4,200,000</b>

(1) Reflects a land acquisition of a portion of the original Salesforce site based on the FAR allocation (1 mill. sq.ft.). The estimate is based on review of recent prevalent land prices as of the date of this report the actual land sale is not available. The sale is not assumed to change due to changes in the development program tested in this analysis.

(2) Based on the City's graduated tax that varies between \$5 per \$1,000 on the first \$250,000 in value and \$25 per \$1,000 on value above \$10 million with the total provided by the City.

Sources: City of San Francisco; Economic & Planning Systems, Inc.



**Table A-7**  
**Sales Tax Estimates**  
**Alternative to Multi-Purpose Venue**

Item	Assumptions	Total
<b>Taxable Sales From Commercial Space</b>		
Retail	\$450 per sq.ft.	\$13,500,000
Sales Tax to San Francisco	1.0% of taxable sales	\$135,000
(less) Shift From Existing Sales (1)		<u>(\$67,500)</u>
Net New Sales Tax		\$67,500
<b>Annual Sales Tax after Shift of Existing Sales</b>		
Sales Tax to the City General Fund	1.00%	<b>\$67,500</b>
Public Safety Sales Tax (2)	0.50% of taxable sales	<b>\$33,750</b>
San Francisco County Transportation Authority (2)	0.50% of taxable sales	<b>\$33,750</b>
SF Public Financing Authority (Schools) (2)	0.25% of taxable sales	<b>\$16,875</b>
<b>One-Time Sales Taxes on Construction Materials and Supplies</b>		
New Taxable Value		\$643,065,000
Supply/Materials Portion of Construction Cost	50.00%	\$321,532,500
San Francisco Capture of Taxable Sales	50.00%	\$160,766,250
Sales Tax to San Francisco	1.0% of taxable sales	<b>\$1,607,663</b>

(1) Deducts share of sales that would have occurred elsewhere in San Francisco (assumes 50%).

(2) Sales tax proportions for these entities are as reported in Controller's Office publication on sales tax from 2008.

Sources: City of San Francisco; Economic & Planning Systems, Inc.



**Table A-8**  
**Parking Tax**  
**Alternative to Multi-Purpose Venue**

Item	Assumption	Total
<hr/>		
<b>Total Spaces On Site</b>		1,056
<b>Parking Revenues On Site</b>		
Total (1)	\$25 per day	\$9,636,000
(less) Vacancy	30%	<u>(\$2,890,800)</u>
Total		\$6,745,200
<b>San Francisco Parking Tax</b>		
	25% of annual revenue	<b>\$1,686,300</b>
Parking Tax Allocation to Gen'l Fund/Special Prc	20% of tax proceeds	\$337,260
Parking Tax Allocation to Municipal Transp. Func	80% of tax proceeds	\$1,349,040
<hr/>		

(1) Based on parking revenue of \$25 a day net of parking taxes.

Sources:Economic & Planning Systems, Inc.



**Table A-9**  
**Gross Receipts Tax Estimates**  
**Alternative to Multi-Purpose Venue**

Item	Total Gross Receipts (GR)	GR Allocated to SF for GR Tax	Gross Revenue Tier				Gross Receipts Tax
			up to \$1m	\$1m - \$2.5m	\$2.5m - \$25m	\$25m+	
Retail (1)	\$6,750,000	\$6,750,000	0.075%	0.100%	0.135%	0.160%	\$6,750
Office (1) (2)	\$817,492,899	\$735,743,609	0.400%	0.460%	0.510%	0.560%	\$3,384,421
Parking	\$9,636,000	\$9,636,000	0.075%	0.100%	0.135%	0.160%	\$11,884
Office/Retail Rent (2)	<u>\$60,768,000</u>	<u>\$60,768,000</u>	0.285%	0.285%	0.300%	0.300%	<u>\$173,189</u>
Total Gross Receipts	<b>\$894,646,899</b>	<b>\$812,897,609</b>					<b>\$3,576,243</b>
<u>Project Construction</u>							
New Taxable Value (3)	\$643,000,000	\$643,000,000					
Direct Construction Cost (4)	\$450,100,000	\$450,100,000	0.300%	0.350%	0.400%	0.450%	\$2,011,200

(1) Based on the tax rate in the 3rd tier since the number of tenants and associates receipts per tenant are not known.

(2) Based on the IMPLAN-derived factor of \$213,500 per office employee; 90% of gross receipts are assumed to be subject to the tax as businesses with receipts below \$1 million and employment outside of San Francisco will be exempt.

(3) See Table A-4; rounded.

(4) Hard costs have not been estimated for the entire project; as a planning estimate, roughly 30% of costs are assumed to be planning and engineering costs.

Sources: City of San Francisco; Economic & Planning Systems.



**Table A-10**  
**Utility User Tax Estimates**  
**Alternative to Multi-Purpose Venue**

Item	Assumption	Total
Retail	\$2.87 per sq.ft.	\$86,100
Office (including Event Management and Team Operations)	\$2.87 per sq.ft.	<u>\$2,944,620</u>
Total Annual Commercial Utility Cost		\$3,030,720
<b>Utility User Tax</b>	7.5% of commercial utility cost	<b>\$227,304</b>



**Table A-11**  
**Stadium Admissions Tax**  
**Multi-Purpose Venue**

Item	Total
Annual Multi-Purpose Venue Ticket Sales (1)	
Warriors Games	0
Other Events	0
Average Admission Tax (2)	#DIV/0!
Warriors Games	\$2.25
Other Events	\$2.00
<b>Total Annual Admission Tax (3)</b>	<b>\$0</b>

(1) Paid attendance; excludes fixed fee rental events.

(2) Reflects a range of ticket prices with "other events" assumed at \$2 per ticket (assumes 15% of the tickets below \$25, 85% above \$27) and the Warriors games assumed at \$2.25 per ticket (applies to tickets exceeding \$27 in value). Combines regular admission and supplemental admission tax.

(3) Historically, a share of the revenue was allocated to recreation and parks; this analysis assumes the revenue is fully captured by the General Fund.

Sources: City of San Francisco; Economic & Planning Systems.



## **ATTACHMENT B**

### **Examples of Compliance Submittals to the San Francisco Planning Department Pursuant to a Verification of Compliance with Construction Emissions Minimization Plan (CEMP)**



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Construction Emissions Minimization Plan  
Monthly Off-Road Equipment Inventory and Tune Up Log

Submittal Date (mm-dd-yyyy):	05-29-2015
Contractor (Company)	ERRG
Primary Contractor (Yes or No)	Yes
Mailing Address:	115 Sansome Street, Suite 200, San Francisco, CA 94104
Equipment List Contact Person	Jim Nores
Phone #:	510-461-3422

Reporting Month (mm-yyyy):	05-2015
Project Name	Pacific Rod & Gun Club Upland Soil Remedial Action Project
Planning Department Case Number:	2013.1220E
Project Location (address):	520 John Muir Drive
Current Construction Phase(s)	
On-site Contact Person:	Christine Wang
Phone #:	925-286-0529

Contractor or Subcontractor Owning/ Renting Equipment	Equipment Type	Equipment Manufacturer	Equipment Model	Equipment Identification Number	Horse power	Engine Serial Number	Engine Year & Certification (Tier Rating)	Site Mobilization Date	Estimated (E) or Actual (A) Site Demobilization Date	Maintenance and/or Tune Ups Performed this Month	Next Maintenance Type(s) and/or Tune Up Due	Next Maintenance and/or Tune Up Date or Hours	Percent of Time Used on Site	Other Information
ERRG	Dump Truck	CAT	730	GW5R48	325	CAT00730LB1M03601	T4	4/27/2015	E 8/13/2015	500 hour service	Routine Maintenance	2000 hours (118 hours)	100%	
ERRG	Mini Excavator	John Deere	35D	GS9G93	30	FF035DX261165	2008, T4	4/22/2015	E 8/13/2015	500 hour service	Routine Maintenance	1000 hours	50%	
ERRG	Excavator	CAT	328D	LD7N99	204	RMX00800	2012, T3	4/27/2015	E 8/13/2015	500 hour service	Routine Maintenance	8000 hours (243 hours)	100%	
ERRG	Skip Loader	John Deete	210K	MJ6B86	88	1T8210EKHEG891796	2012, T4	5/1/2015	A 5/8/2015	500 hour service	Routine Maintenance	5/20/2015	50%	
ERRG	Excavator	CAT	336E L	M17244	323	BZY01012	2015, T4	5/12/2015	E 8/13/2015	500 hour service	Routine Maintenance	3500 hours (448.7 hours)	100%	
ERRG	Loader	John Deere	544	919591RA	94	I4A3131100020	2012, T4	5/8/2015	E 8/13/2015	500 hour service	Routine Maintenance	4000 hours (274.9)	75%	
ERRG	Forklift	JLG	G6-42A	YH7A36	100	0160053517	2013,T3	5/5/2015	E 8/13/2015	NA	Routine Maintenance	1000 hours (336.3 hours)	75%	
ERRG	Hauler	Volvo	A35F	TF7L37	441	VCE0A35FJ00020204K	2012, T4	5/18/2015	E 8/13/2015	500 hours	Routine Maintenance	1000 hours	75%	
ERRG	Compact Track Loader	Bobcat	T590	SF9M46	66	RL1645785	2015, T4	4/28/2015	E 8/13/2015	New (28.1 hours)	Routine Maintenance	6-22-15 or 1050.1 hours	75%	
Davey Tree Expert Company	Excavator	CAT	330D L	YM3J47	268	485873UC09	T3	5/11/2015	A 5/28/2015	12/8/14	Routine Maintenance	In 345.7 hours	20%	



Construction Emissions Minimization Plan  
Monthly Off-Road Equipment Inventory and Tune Up Log

Submittal Date (mm-dd-yyyy):	07-01-2015
Contractor (Company)	ERRG
Primary Contractor (Yes or No)	Yes
Mailing Address:	115 Sansome Street, Suite 200, San Francisco, CA 94104
Equipment List Contact Person	Jim Nores
Phone #:	510-461-3422

Reporting Month (mm-yyyy):	06-2015
Project Name	Pacific Rod & Gun Club Upland Soil Remedial Action Project
Planning Department Case Number:	2013.1220E
Project Location (address):	520 John Muir Drive
Current Construction Phase(s)	
On-site Contact Person:	Christine Wang
Phone #:	925-286-0529

Contractor or Subcontractor Owning/ Renting Equipment	Equipment Type	Equipment Manufacturer	Equipment Model	Equipment Identification Number	Horse power	Engine Serial Number	Engine Year & Certification (Tier Rating)	Site Mobilization Date	Estimated (E) or Actual (A) Site Demobilization Date	Maintenance and/or Tune Ups Performed this Month	Next Maintenance Type(s) and/or Tune Up Due	Next Maintenance and/or Tune Up Date or Hours	Percent of Time Used on Site	Other Information
ERRG	Dump Truck	CAT	730	GW5R48	325	CAT00730LB1M03601	T4	4/27/2015	E 8/13/2015	500 hour service	Routine Maintenance	2000 hours (118 hours)	100%	
ERRG	Mini Excavator	John Deere	35D	GS9G93	30	FF035DX261165	2008, T4	4/22/2015	E 8/13/2015	500 hour service	Routine Maintenance	1000 hours	50%	
ERRG	Excavator	CAT	328D	LD7N99	204	RMX00800	2012, T3	4/27/2015	E 8/13/2015	500 hour service	Routine Maintenance	8000 hours (243 hours)	100%	
ERRG	Excavator	CAT	336E L	M17244	323	BZY01012	2015, T4	5/12/2015	E 8/13/2015	500 hour service	Routine Maintenance	3500 hours (448.7 hours)	100%	
ERRG	Loader	John Deere	544	919591RA	94	I4A3131100020	2012, T4	5/8/2015	E 8/13/2015	500 hour service	Routine Maintenance	4000 hours (274.9)	75%	
ERRG	Forklift	JLG	G6-42A	YH7A36	100	0160053517	2013,T3	5/5/2015	E 8/13/2015	NA	Routine Maintenance	1000 hours (336.3 hours)	75%	
ERRG	Hauler	Volvo	A35F	TF7L37	441	VCE0A35FJ00020204K	2012, T4	5/18/2015	E 8/13/2015	500 hours	Routine Maintenance	1000 hours	75%	
ERRG	Compact Track Loader	Bobcat	T590	SF9M46	66	RL1645785	2015, T4	4/28/2015	E 8/13/2015	New (28.1 hours)	Routine Maintenance	6-22-15 or 1050.1 hours	75%	
ERRG	Backhoe Loader	Case Construction	580SN	RU9M94	110	NDC585692	2013, T4	6/22/2015	E 6/26/2015	500 hour service	Routine Maintenance	In 360 hours	50%	



Construction Emissions Minimization Plan  
Monthly Off-Road Equipment Inventory and Tune Up Log

Submittal Date (mm-dd-yyyy):	08-05-2015
Contractor (Company)	ERRG
Primary Contractor (Yes or No)	Yes
Mailing Address:	115 Sansome Street, Suite 200, San Francisco, CA 94104
Equipment List Contact Person	Jim Nores
Phone #:	510-461-3422

Reporting Month (mm-yyyy):	07-2015
Project Name	Pacific Rod & Gun Club Upland Soil Remedial Action Project
Planning Department Case Number:	2013.1220E
Project Location (address):	520 John Muir Drive
Current Construction Phase(s)	
On-site Contact Person:	Christine Wang
Phone #:	925-286-0529

Contractor or Subcontractor Owning/ Renting Equipment	Equipment Type	Equipment Manufacturer	Equipment Model	Equipment Identification Number	Horse power	Engine Serial Number	Engine Year & Certification (Tier Rating)	Site Mobilization Date	Estimated (E) or Actual (A) Site Demobilization Date	Maintenance and/or Tune Ups Performed this Month	Next Maintenance Type(s) and/or Tune Up Due	Next Maintenance and/or Tune Up Date or Hours	Percent of Time Used on Site	Other Information
ERRG	Dump Truck	CAT	730	GW5R48	325	CAT00730LB1M03601	T4	4/27/2015	E 9/11/2015	500 hour service	Routine Maintenance	2000 hours (118 hours)	75%	
ERRG	Mini Excavator	John Deere	35D	GS9G93	30	FF035DX261165	2008, T4	4/22/2015	E 8/14/2015	500 hour service	Routine Maintenance	1000 hours	30%	
ERRG	Excavator	CAT	328D	LD7N99	204	RMX00800	2012, T3	4/27/2015	E 9/11/2015	500 hour service	Routine Maintenance	8000 hours (243 hours)	100%	
ERRG	Excavator	CAT	336E L	M17244	323	BZY01012	2015, T4	5/12/2015	E 8/21/2015	500 hour service	Routine Maintenance	3500 hours (448.7 hours)	100%	
ERRG	Loader	John Deere	544	919591RA	94	I4A3131100020	2012, T4	5/8/2015	E 9/25/2015	500 hour service	Routine Maintenance	4000 hours (274.9)	75%	
ERRG	Forklift	JLG	G6-42A	YH7A36	100	0160053517	2013,T3	5/5/2015	E 8/28/2015	NA	Routine Maintenance	1000 hours (336.3 hours)	25%	
ERRG	Hauler	Volvo	A35F	TF7L37	441	VCE0A35FJ00020204K	2012, T4	5/18/2015	E 9/11/2015	500 hours	Routine Maintenance	1000 hours	75%	
ERRG	Compact Track Loader	Bobcat	T590	SF9M46	66	RL1645785	2015, T4	4/28/2015	E 9/25/2015	New (28.1 hours)	Routine Maintenance	6-22-15 or 1050.1 hours	50%	
ERRG	Backhoe Loader	Case Construction	580SN	RU9M94	110	NDC585692	2013, T4	6/22/2015	A 7/17/2015	500 hour service	Routine Maintenance	In 360 hours	50%	
ERRG	Excavator	Case Construction	CX160C	DK8M56	127	4JJ1 168069	2014, T4	7/2/2015	E 8/14/2015	500 hour service	Routine Maintenance	In 329 hours	100%	
ERRG	Power screen	Terex	Chieftan 1400	XM6N66	110	44804719	2013, T4	6/30/2015	E 8/142015	NA	Routine Maintenance	NA	20%	



Construction Emissions Minimization Plan  
Monthly Off-Road Equipment Inventory and Tune Up Log

Submittal Date (mm-dd-yyyy):	09-04-2015
Contractor (Company)	ERRG
Primary Contractor (Yes or No)	Yes
Mailing Address:	115 Sansome Street, Suite 200, San Francisco, CA 94104
Equipment List Contact Person	Jim Nores
Phone #:	510-461-3422

Reporting Month (mm-yyyy):	08-2015
Project Name	Pacific Rod & Gun Club Upland Soil Remedial Action Project
Planning Department Case Number:	2013.1220E
Project Location (address):	520 John Muir Drive
Current Construction Phase(s)	
On-site Contact Person:	Christine Wang
Phone #:	925-286-0529

Contractor or Subcontractor Owning/ Renting Equipment	Equipment Type	Equipment Manufacturer	Equipment Model	Equipment Identification Number	Horse power	Engine Serial Number	Engine Year & Certification (Tier Rating)	Site Mobilization Date	Estimated (E) or Actual (A) Site Demobilization Date	Maintenance and/or Tune Ups Performed this Month	Next Maintenance Type(s) and/or Tune Up Due	Next Maintenance and/or Tune Up Date or Hours	Percent of Time Used on Site	Other Information
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ERRG	Excavator	CAT	328D	LD7N99	204	RMX00800	2012, T3	4/27/2015	E 9/30/2015	500 hour service	Routine Maintenance	8000 hours (243 hours)	100%	
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ERRG	Hauler	Volvo	A35F	TF7L37	441	VCE0A35FJ00020204K	2012, T4	5/18/2015	E 9/30/2015	500 hours	Routine Maintenance	1000 hours	75%	
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ERRG	Backhoe Loader	Case Construction	580SN	RU9M94	110	NDC585692	2013, T4	6/22/2015	A 7/17/2015	500 hour service	Routine Maintenance	In 360 hours	50%	
ERRG	Excavator	Case Construction	CX160C	DK8M56	127	4JJ1 168069	2014, T4	7/2/2015	A 8/12/2015	500 hour service	Routine Maintenance	In 329 hours	100%	
ERRG	Power screen	Terex	Chieftan 1400	XM6N66	110	44804719	2013, T4	6/30/2015	A 8/13/2015	NA	Routine Maintenance	NA	20%	



Construction Emissions Minimization Plan  
Monthly Off-Road Equipment Inventory and Tune Up Log

Submittal Date (mm-dd-yyyy):	10-02-2015
Contractor (Company)	ERRG
Primary Contractor (Yes or No)	Yes
Mailing Address:	115 Sansome Street, Suite 200, San Francisco, CA 94104
Equipment List Contact Person	Jim Nores
Phone #:	510-461-3422

Reporting Month (mm-yyyy):	09-2015
Project Name	Pacific Rod & Gun Club Upland Soil Remedial Action Project
Planning Department Case Number:	2013.1220E
Project Location (address):	520 John Muir Drive
Current Construction Phase(s)	
On-site Contact Person:	Christine Wang
Phone #:	925-286-0529

Contractor or Subcontractor Owning/ Renting Equipment	Equipment Type	Equipment Manufacturer	Equipment Model	Equipment Identification Number	Horse power	Engine Serial Number	Engine Year & Certification (Tier Rating)	Site Mobilization Date	Estimated (E) or Actual (A) Site Demobilization Date	Maintenance and/or Tune Ups Performed this Month	Next Maintenance Type(s) and/or Tune Up Due	Next Maintenance and/or Tune Up Date or Hours	Percent of Time Used on Site	Other Information
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ERRG	Excavator	CAT	328D	LD7N99	204	RMX00800	2012, T3	4/27/2015	E 9/30/2015	500 hour service	Routine Maintenance	8000 hours (243 hours)	100%	
ERRG	Excavator	CAT	336E L	M17244	323	BZY01012	2015, T4	5/12/2015	A 9/30/2015	500 hour service	Routine Maintenance	3500 hours (448.7 hours)	100%	
ERRG	Loader	John Deere	544	919591RA	94	I4A3131100020	2012, T4	5/8/2015	E 10/30//2015	500 hour service	Routine Maintenance	4000 hours (274.9)	75%	
ERRG	Forklift	JLG	G6-42A	YH7A36	100	0160053517	2013,T3	5/5/2015	E 10/30/2015	NA	Routine Maintenance	1000 hours (336.3 hours)	25%	
ERRG	Hauler	Volvo	A35F	TF7L37	441	VCE0A35FJ00020204K	2012, T4	5/18/2015	A 9/30/2015	500 hours	Routine Maintenance	1000 hours	75%	
ERRG	Compact Track Loader	Bobcat	T590	SF9M46	66	RL1645785	2015, T4	4/28/2015	E 10/30/2015	New (28.1 hours)	Routine Maintenance	6-22-15 or 1050.1 hours	50%	
ERRG	Backhoe Loader	Case Construction	580SN	RU9M94	110	NDC585692	2013, T4	6/22/2015	A 7/17/2015	500 hour service	Routine Maintenance	In 360 hours	50%	
ERRG	Excavator	Case Construction	CX160C	DK8M56	127	4JJ1 168069	2014, T4	7/2/2015	A 8/12/2015	500 hour service	Routine Maintenance	In 329 hours	100%	
ERRG	Power screen	Terex	Chieftan 1400	XM6N66	110	44804719	2013, T4	6/30/2015	A 8/13/2015	NA	Routine Maintenance	NA	20%	
ERRG	Dozer	CAT	D6T	YC9K75	199.8	CAT00D6TJGMK01524	2014, T4	9/1/2015	E 11/6/2015	NA	Routine Maintenance	1000 hour in 315 hours	100%	
ERRG	Dozer	CAT	D6T	NC9J88	199.8	THX13903	2013, T3	9/1/2015	E 11/6/2015	NA	Routine Maintenance	6000 hour in 420 hours	50%	





## Exhibit E

### Late Comments

OCII CASE NO. ER 2014-919-97; PLANNING DEPARTMENT CASE NO. 2014.1441E –  
EVENT CENTER AND MIXED-USE DEVELOPMENT AT MISSION BAY BLOCKS 29-32  
CERTIFIED ON NOVEMBER 3, 2015

Exhibit E presents copies of late comments on the Subsequent Environmental Impact Report (SEIR) on the Golden State Warriors' Event Center and Mixed-Use Development at Mission Bay Block 29-32. Late comments are comments that were submitted after the close of the public review period on July 27, 2015 and were received so late that a response could not be included in the Final SEIR. Late comments also include comments submitted on the Final SEIR.

Table E-1 lists the persons or entities who submitted late comments, and also indicates the commenter code. Within each comment letter or oral testimony, the substantive comments that relate to the SEIR or the proposed projects are bracketed according to topic. To facilitate the commenter in locating the responses to his or her comments, this exhibit assigns a unique comment code plus the corresponding topic code to each individual bracketed comment. Both the comment and topic codes are shown in the margin of each written comment, with the unique comment code shown first and the topic code in square brackets beneath the commenter code. This information shown in the margins of each written comment serves as the cross-reference guide for the comment and topic codes. The topic code represents the category and specific topic under which the response to comments on those topics are provided in Exhibit D.

Edwin M. Lee  
MAYOR

Tiffany Bohee  
EXECUTIVE DIRECTOR

Mara Rosales  
CHAIR

Miguel Bustos  
Marily Mondejar  
Leah Pimentel  
Darshan Singh  
COMMISSIONERS

One S. Van Ness Ave.,  
5th Floor,  
San Francisco, CA  
94103

415 749 2400

www.sfocii.org



**TABLE E-1  
PERSONS SUBMITTING LATE COMMENTS**

<b>Commenter Code</b>	<b>Name of Person/Agency Submitting Comments</b>	<b>Comment Format</b>	<b>Comment Date</b>	<b>Primary Issues and Notes</b>
<b>State Agency</b>				
A-Caltrans2	Patricia Maurice, District Branch Chief, Local Development-Intergovernmental Review, State of California Department of Transportation	Letter	11/02/2015	Transportation
A-UCSF2	Lori Yamauchi, Associate Vice-Chancellor, UCSF Campus Planning,	Letter	11/03/2015	Transportation; Exterior Lighting Plan; Utilities and Service Systems (wastewater treatment capacity); MOU regarding gatehouse
<b>Regional/Local Agency</b>				
A-BAAQMD2	Jean Roggencamp, Deputy Air Pollution Control Officer, Bay Area Air Quality Management District	Letter	11/02/2015	Air Quality
A-MTC	Ken Kirkey, Director, Planning, Metropolitan Transportation Commission	Letter	10/30/2015	Consistency with Plan Bay Area; Transportation
<b>Non-Governmental Organizations</b>				
O-MBA14B2	Susan Brandt-Hawley, Brandt-Hawley Law Group, on behalf of Mission Bay Alliance, submitted to OCII	Letter	10/13/2015	Alternatives (Pier 80)
	<ul style="list-style-type: none"> <li>w/ Attachment of links to various newspaper articles, and UCSF letter</li> </ul>	-		[Not bracketed, does not contain comments on the SEIR or proposed project]
O-MBA15S5	Osha R. Meserve, Soluri Meserve, on behalf of Mission Bay Alliance, submitted to OCII	Letter	10/20/2015	Hazards and Hazardous Materials
	<ul style="list-style-type: none"> <li>w/ Attachment from Damian Applied Toxicology, LLC (10/20/2015)</li> </ul>			
O-MBA16S6	Patrick M. Soluri, Soluri Meserve, on behalf of Mission Bay Alliance, submitted to OCII	Letter	11/02/2015	Tiering; AB 900; Greenhouse Gases; Wind and Shadow; Recreation; Geology and Soils; Hydrology and Water Quality; Hazards and Hazardous Materials; Urban Decay; Transportation Mitigation/Funding
	<ul style="list-style-type: none"> <li>Exhibit 1: SCS Engineers</li> </ul>	-	11/02/2015	Greenhouse Gases; AB 900
	<ul style="list-style-type: none"> <li>Exhibit 2: BSK Associates</li> </ul>	-	11/02/2015	Geology and Soils; Hydrology and Water Quality
	<ul style="list-style-type: none"> <li>Exhibit 3: Soluri Meserve letter to DTSC</li> </ul>	-	10/23/2015	Hazards and Hazardous Materials [Not bracketed, does not contain comments on the SEIR or proposed project]
	<ul style="list-style-type: none"> <li>Exhibit A: BSK Associates</li> </ul>	-	07/22/2015	Hazards and Hazardous Materials [Not bracketed because this is same 07/22/15 BSK Associates letter included in O-MBA7S2 Exhibit in the RTC Document. ]



**TABLE E-1 (Continued)**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<i>Non-Governmental Organizations (cont.)</i>				
O-MBA16S6 (cont.)	– Exhibit B: Damian Applied Toxicology, LLC <i>[same as attachment in O-MBA15S5, above]</i>	-	10/20/2015	Hazards and Hazardous Materials; <i>[Not bracketed. Exhibit B: 10/20/15 Damian Applied Toxicology, LLC letter is the same as attachment in O-MBA15S5]</i>
	• Exhibit 4: Philip King, Ph.D.	-	11/02/2015	Urban Decay
	• Exhibit 5: SFMTA spreadsheet: Capital and Operating Cost Estimates for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32	-	10/13/2015	Transportation Mitigation/Funding <i>[Not bracketed, does not contain comments on the SEIR or proposed project]</i>
	• Exhibit 6: Marin Economic Consulting	-	11/02/2015	Transportation Mitigation/Funding
O-MBA17L5	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to OCII	Letter	11/02/2015	Secondary Use Findings; Lack of Fair Trial; and Sunshine Ordinance
O-MBA18L6	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to OCII	Letter	11/02/2015	Violation of Variance Requirement
O-MBA19B3	Susan Brandt-Hawley, Brandt-Hawley Law Group, on behalf of Mission Bay Alliance, submitted to OCII	Letter	11/02/2015	Consistency with Secondary Use Classification
	• With Attachment of 2005 Resolution of MOU between Redevelopment Agency and UCSF			<i>[Not bracketed, does not contain comments on the SEIR or proposed project]</i>
O-MBA20L7	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to OCII	Letter	11/03/2015	General; CEQA Process (Noticing); Air Quality/Health Risk; Utilities and Service Systems; Transportation, Hydrology and Water Quality; Biological Resources; and Noise
	• Exhibit A: MR Wolfe and Associates, PC, Attorneys at Law (Comments on Health Risk)	-	11/02/2015	Health Risks
	– Exhibit 1: SWAPE		11/02/2015	Health Risk
	– Exhibit 2: CAPCOA Guidance Document	-	07/2009	Health Risk <i>[Not bracketed, does not contain comments on the SEIR or proposed project]</i>
	– Exhibit 3: San Luis Obispo Air Pollution Control District Air Quality Handbook	-	04/2012	Health Risks <i>[Not bracketed, does not contain comments on the SEIR or proposed project]</i>
	– Exhibit 4: Mission Bay Land Use Plan	-	11/2005	<i>[Not bracketed, does not contain comments on the SEIR or proposed project]</i>



**TABLE E-1 (Continued)**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<i>Non-Governmental Organizations (cont.)</i>				
O-MBA20L7 (cont.)	<ul style="list-style-type: none"> <li>Exhibit B: <ul style="list-style-type: none"> <li>Exhibit 5: Office of Environmental Health Hazard Assessment, Air Toxics Hot Spots Program Risk Assessment Guidelines</li> </ul> </li> </ul>	-	02/2015	Health Risks [Not bracketed, does not contain comments on the SEIR or proposed project]
	<ul style="list-style-type: none"> <li>Exhibit 6: Office of Environmental Health Hazard Assessment website page on Air Toxicology and Epidemiology (Adoption of the Revised Air Toxics Hot Spots Program Technical Support Document for Cancer Potency Factors</li> </ul>	-	Accessed 11/02/2015	Health Risks [Not bracketed, does not contain comments on the SEIR or proposed project]
	<ul style="list-style-type: none"> <li>Exhibit 7: Office of Environmental Health Hazard Assessment website page on Air Toxicology and Epidemiology (Notice of Adoption of Air Toxics Hot Spots Program Risk Assessment Guidelines))</li> </ul>	-	Accessed 11/02/2015	Health Risks [Not bracketed, does not contain comments on the SEIR or proposed project]
	<ul style="list-style-type: none"> <li>Exhibit 8: Office of Environmental Health Hazard Assessment, excerpt from Technical Support Document for Exposure Assessment and Stochastic Analysis)</li> </ul>	-	08/2012	Health Risks [Not bracketed, does not contain comments on the SEIR or proposed project]
	<ul style="list-style-type: none"> <li>Exhibit C: Autumn Wind and Associates, Inc.: Comments Regarding Air Quality Impact Analysis and Mitigation (Comments on Air Quality)</li> </ul>	-	10/30/2015	Air Quality
	<ul style="list-style-type: none"> <li>Exhibit D: Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, Public Records Act/ Sunshine Ordinance Request</li> </ul>	-	08/13/15	Sunshine Ordinance [Not bracketed, does not contain comments on the SEIR or proposed project]
	<ul style="list-style-type: none"> <li>Exhibit E: Email from Thomas Lippe to Christine Lamorena, San Francisco Planning Department, and Sally Oerth, Deputy Director, OCII</li> </ul>	-	09/30/15	Sunshine Ordinance [Not bracketed, does not contain comments on the SEIR or proposed project]
	<ul style="list-style-type: none"> <li>Exhibit F: Smith Engineering and Management</li> </ul>	-	11/02/15	Transportation
	<ul style="list-style-type: none"> <li>Exhibit G: Larry Wymer and Associates Traffic Engineering</li> </ul>	-	11/2/2015	Transportation
	<ul style="list-style-type: none"> <li>Exhibit H: SWAPE</li> </ul>	-	11/01/2015	Hydrology and Water Quality (potential PCBs in Stormwater)
	<ul style="list-style-type: none"> <li>Exhibit I: BSK Associates</li> </ul>	-	11/02/2015	Hydrology and Water Quality (HYD-3 and HYD-4); and Utilities and Service Systems (UTIL-5, and UTIL-6)
	<ul style="list-style-type: none"> <li>Exhibit J: BSK Associates</li> </ul>	-	11/02/15	Biological Resources



**TABLE E-1 (Continued)**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<i>Non-Governmental Organizations (cont.)</i>				
O-MBA20L7 (cont.)	<ul style="list-style-type: none"> <li>Exhibit K: BSK Associates</li> </ul>	-	07/16/15	Biological Resources (Assessment of project site's water and wetland conditions)
	<ul style="list-style-type: none"> <li>Exhibit L: BSK Associates, Draft Waters and Wetlands Delineation Report</li> </ul>	-	10/29/15	Biological Resources (Draft Waters and Wetlands Delineation Report)
	<ul style="list-style-type: none"> <li>Exhibit M: <ul style="list-style-type: none"> <li>Summary of Recent City of San Francisco NPDES Permit Violations</li> <li>Regional Water Quality Board Reports</li> </ul> </li> </ul>	-	Various dates	Hydrology and Water Quality <i>[Not bracketed, does not contain comments on the SEIR or proposed project]</i>
	<ul style="list-style-type: none"> <li>Exhibit N: State Executive Order W-59-93</li> </ul>	-	08/23/1993	Biological Resources <i>[Not bracketed, does not contain comments on the SEIR or proposed project]</i>
	<ul style="list-style-type: none"> <li>Exhibit O: State Water Resources Control Board, Effect of SWANCC v. United States on the 401 Certification Program)</li> </ul>	-	01/25/2001	Biological Resources <i>[Not bracketed, does not contain comments on the SEIR or proposed project]</i>
	<ul style="list-style-type: none"> <li>Exhibit P: State Water Resources Control Board, Guidance for Regulation of Discharges to "Isolated" Waters</li> </ul>	-	01/25/2004	Biological Resources <i>[Not bracketed, does not contain comments on the SEIR or proposed project]</i>
	<ul style="list-style-type: none"> <li>Exhibit Q: State Water Resources Control Board, Water Quality Order No. 2004-004-DWQ</li> </ul>	-	05/04/2004	Biological Resources <i>[Not bracketed, does not contain comments on the SEIR or proposed project]</i>
	<ul style="list-style-type: none"> <li>Exhibit R: State Water Resources Control Board, Resolution No. 2008-0026</li> </ul>	-	04/15/2008	Biological Resources <i>[Not bracketed, does not contain comments on the SEIR or proposed project]</i>
	<ul style="list-style-type: none"> <li>Exhibit S: Frank Hubach Associates (FHA)</li> </ul>	-	11/02/2015	Noise
O-MBA21L8	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to OCII	Email	11/03/2015	Adequacy of Time to Review and Comment on FSEIR/RTC; Violations of NPDES permits
O-MBA22B4	Susan Brandt-Hawley, Brandt-Hawley Law Group, on behalf of Mission Bay Alliance, submitted to OCII	Letter	11/03/2015	Process; Land Use, Alternatives; Cultural Resources
O-MBA23S7	Patrick M. Soluri, Soluri Meserve, on behalf of Mission Bay Alliance, submitted to SFMTA	Letter	11/03/2015	Project Description Assumptions
	<ul style="list-style-type: none"> <li>Exhibit 1: Marin Economic Consulting (11/02/15) <i>[same as Exhibit 6 in Letter O-MBA16S6]</i></li> </ul>	-	11/02/2015	<i>[Not bracketed. Exhibit 1: 11/12/15 Marin Economic Consulting letter is same as Exhibit 6 in Letter O-MBA16S6]</i>



**TABLE E-1 (Continued)**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<i>Non-Governmental Organizations (cont.)</i>				
O-MBA24L9	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to Planning Commission	Letter	11/05/2015	Compliance with D for D; Consistency with Redevelopment Plan; Office space allocation; General Plan consistency; CEQA Findings for General/BAAQMD/ Alternative Site
	<ul style="list-style-type: none"> <li>Exhibit 1: Brandt Hawley Law Group Letter [same as Letter O-MBA19B3]</li> </ul>	-	11/02/2015	[Not bracketed. Exhibit 1: 11/02/15 Brandt Hawley Law Group letter is same as Letter O-MBA19B3]
	<ul style="list-style-type: none"> <li>Exhibit 2: Law Offices of Thomas N. Lippe, APC Letter [same as Letter O-MBA18L6]</li> </ul>	-	11/02/2015	[Not bracketed. Exhibit 2: 11/02/15 Law Offices of Thomas N. Lippe, APC letter is same as Letter O-MBA18L6]
	<ul style="list-style-type: none"> <li>Exhibit 3: Office Development Annual Limitation ("Annual Limit") Program</li> </ul>	-	undated	[Not bracketed, does not contain comments on the SEIR or proposed project]
	<ul style="list-style-type: none"> <li>Exhibit 4: BAAQMD Letter [same as Letter A-BAAQMD2]</li> </ul>	-	11/02/2015	[Exhibit 4: 11//2/15 BAAQMD letter is same as Letter A-BAAQMD2]
	<ul style="list-style-type: none"> <li>Exhibit 5: Letter to OCII Executive Director regarding 11/2/15 BAAQMD Letter</li> </ul>	-	11/02/2015	Air Quality [Not bracketed, does not contain comments on the SEIR or proposed project]
O-MBA25L10	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to San Francisco DPW	Letter	11/06/2015	Request for notice of hearing on Subdivision Application; Compliance with CEQA, Mission Bay Redevelopment Plan, SF General Plan and Proposition M
	<ul style="list-style-type: none"> <li>Exhibit 1: Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance</li> </ul>	-	11/05/2015	[Not bracketed. Exhibit 1: 11/05/15 Law Offices of Thomas N. Lippe, APC letter is same as Letter O-MBA24L9]
	<ul style="list-style-type: none"> <li>Exhibit 1: Brandt Hawley Law Group Letter [same as Letter O-MBA19B3]</li> </ul>	-	11/02/2015	[Not bracketed. Exhibit 1: 11/02/15 Brandt Hawley Law Group letter is same as Letter O-MBA19B3]
	<ul style="list-style-type: none"> <li>Exhibit 2: Law Offices of Thomas N. Lippe, APC Letter [same as Letter O-MBA18L6]</li> </ul>	-	11/02/2015	[Not bracketed. Exhibit 2: 11/02/15 Law Offices of Thomas N. Lippe, APC letter is same as Letter O-MBA18L6]
	<ul style="list-style-type: none"> <li>Exhibit 3: Office Development Annual Limitation ("Annual Limit") Program</li> </ul>	-	undated	[Not bracketed. Exhibit 3 is same as Exhibit 3 in as Letter O-MBA24L9]
	<ul style="list-style-type: none"> <li>Exhibit 4: BAAQMD Letter [same as Letter A-BAAQMD2]</li> </ul>	-	11/02/2015	[Not bracketed. Exhibit 4: 11//2/15 BAAQMD letter is same as Letter A-BAAQMD2]
	<ul style="list-style-type: none"> <li>Exhibit 5: Letter to OCII Executive Director regarding 11/2/15 BAAQMD Letter</li> </ul>	-	11/02/2015	[Not bracketed. Exhibit 5 is same as Exhibit 5 in as Letter O-MBA24L9]



**TABLE E-1 (Continued)**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<i>Non-Governmental Organizations (cont.)</i>				
O-MBA26S8	Osha R. Meserve, Soluri Meserve, on behalf of Mission Bay Alliance, submitted to BOS Budget and Finance Committee	Letter	11/09/2015	Project Description Assumptions vs. Mitigation Measures
O-MBA27S9	Patrick M. Soluri, Soluri Meserve, on behalf of Mission Bay Alliance, submitted to Entertainment Commission	Letter	11/10/2015	Consistency with Redevelopment Plan; CEQA compliance; CEQA Findings; Project Description Assumptions vs. Mitigation Measures; Adequacy of Traffic Analysis
	• Attachment: Smith Engineering and Management	-	11/10/15	Transportation (Emergency Vehicle Access)
	• Attachment: Smith Engineering and Management	-	11/10/15	Transportation (Parking)
	• Attachment: Soluri Meserve [same as Letter O-MBA26S8]		11/09/15	[Not bracketed. This attachment is same as Letter O-MBA26S8]
	• Attachment: Larry Wymer and Associates Traffic Engineering [same as Exhibit G in Letter O-MBA20L7]	-	11/2/2015	[Not bracketed. This attachment is same as Exhibit G in Letter O-MBA20L7]
	• Attachment: Smith Engineering and Management [same as Exhibit F in Letter O-MBA20L7]	-	11/02/2015	[Not bracketed. This attachment is same as Exhibit F in Letter O-MBA20L7]
	• Attachment: : Law Offices of Thomas N. Lippe, APC Letter [same as Letter O-MBA10L4]	-	07/27/2015	[Not bracketed. This attachment is same as Letter O-MBA10L4]]
O-MBA28L11	Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to the San Francisco Board of Supervisors Budget and Finance Committee	-	11/09/15	Compliance with CEQA; CEQA Findings; Compliance with General Plan and Proposition M; Air Quality; Alternatives
	• Exhibit 1: Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to Planning Commission	Letter	11/05/2015	[Not bracketed. Exhibit 1: 11/05/15 Law Offices of Thomas N. Lippe, APC letter is same as Letter O-MBA24L9]
	• Exhibit 1: Brandt Hawley Law Group Letter [same as Letter O-MBA19B3]	-	11/02/2015	[Not bracketed. Exhibit 1: 11/02/15 Brandt Hawley Law Group letter is same as Letter O-MBA19B3]
	• Exhibit 2: Law Offices of Thomas N. Lippe, APC Letter [same as Letter O-MBA18L6]	-	11/02/2015	[Not bracketed. Exhibit 2: 11/02/15 Law Offices of Thomas N. Lippe, APC letter is same as Letter O-MBA18L6]
	• Exhibit 3: Office Development Annual Limitation ("Annual Limit") Program	-	undated	[Not bracketed. Exhibit 3 is same as Exhibit 3 in as Letter O-MBA24L9]
	• Exhibit 4: BAAQMD Letter [same as Letter A-BAAQMD2]	-	11/02/2015	[Not bracketed. Exhibit 4: 11/2/15 BAAQMD letter is same as Letter A-BAAQMD2]



**TABLE E-1 (Continued)**  
**PERSONS SUBMITTING LATE COMMENTS**

Commenter Code	Name of Person/Agency Submitting Comments	Comment Format	Comment Date	Primary Issues and Notes
<b>Non-Governmental Organizations (cont.)</b>				
O-MBA28L11 (cont.)	<ul style="list-style-type: none"> <li>Exhibit 5: Letter to OCII Executive Director regarding 11/2/15 BAAQMD Letter</li> </ul>	-	11/02/2015	[Not bracketed. Exhibit 5 is same as Exhibit 5 in as Letter O-MBA24L9]
O-MBA29L12	<ul style="list-style-type: none"> <li>Exhibit 6: Smith Engineering and Management [Exhibit to 11/13/15 Appeal Letter from Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance, submitted to OCII]</li> </ul>	Letter	11/13/2015	Transportation (Exhibit to 11/13/15 Appeal Letter from Thomas N. Lippe, Law Offices of Thomas N. Lippe APC, on behalf of Mission Bay Alliance)
<b>Individuals</b>				
I-Templeton	John William Templeton	Email with Attachment	11/02/2015	Environmental Justice
<b>Individuals Commenting on the SEIR at the November 3, 2015 OCII Commission Meeting<sup>1</sup></b>				
PH2-Lippe	Thomas Lippe	Transcript	11/03/2015	Land Use; Plans and Policies, Hydrology and Water Quality; Air Quality
PH2-Hawley	Susan Brandt Hawley	Transcript	11/03/2015	Land Use; Plans and Policies
PH2-Templeton	John William Templeton	Transcript	11/03/2015	Environmental Justice

<sup>1</sup> Includes only persons critiquing the SEIR.



## A-CALTRANS2

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

### DEPARTMENT OF TRANSPORTATION

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November 2, 2015

SF280144  
SF-280-R 6.6  
SCH# 2014112045

Mr. Brett Bollinger  
Planning Department  
City and County of San Francisco  
1650 Mission Street, Suite 400  
San Francisco, CA 94103

#### Event Center & Mixed-Use Development at Mission Bay Blocks 29-32 – Final Responses to Comments on Draft Subsequent Environmental Impact Report

Dear Mr. Bollinger:

Thank you for continuing to include the California Department of Transportation (Caltrans) in the environmental review process for the project referenced above. Our comments seek to promote the State's smart mobility goals that support a vibrant economy and build active communities rather than sprawl. We have reviewed the Final Response to Comments on the Draft Subsequent Environmental Impact Report (RTC) and have the following comments to offer. Please refer to Caltrans' comment letter dated July 20, 2015, on the Draft Subsequent Environmental Impact Report.

#### Reply to Response TR-2a

Caltrans notes that the RTC Document addresses turning traffic volumes under 2015 Existing Plus Convention Event and 2015 Existing Plus Basketball Game. Yet, traffic analysis under Basketball Game Only and Convention Only Conditions are not provided. As mentioned in Caltrans' previous letter, we recommend the report include traffic turning movement per study intersection under Basketball Game Only and Convention Only Conditions separately for complete comparison review purposes.

1  
[LC-TR-1]

#### Reply to Response TR-2d

Caltrans notes that the RTC Document justifies lower traffic volumes under Basketball Game Conditions in Figure 15a than No Event Conditions in Figure 13a (SEIR, Appendix TR, pgs. TR-156, TR-152). The RTC Document states that the likely arrival of the basketball attendees would be one hour prior to the game. Peak hour traffic volumes under 2040 Cumulative Conditions is assumed during 4pm-6pm. The Document estimates cumulative arrival attendees is five percent during the 4pm-6pm. Thus, the underlying assumptions and methodology may continuously lead to inconsistent traffic patterns of five study intersections (Study Intersections #9 to #13) that

2  
[LC-TR-4]

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

## A-CALTRANS2

Mr. Brett Bollinger, City and County of San Francisco

November 2, 2015

Page 2

surround the project site between Figure 15a and Figure 13a. For a conservative approach that resolves irregular traffic concerns expressed in our previous letter, Caltrans recommends the report include peak volume 2040 Cumulative Conditions during 6:30 to 7:30 pm as a worse scenario. The worse one-peak-hour cumulative arrival attendees during 6:30 to 7:30 would be 52% while worse one-peak-hour cumulative departure attendees during 9:30 to 10:30 pm would 70%.

2  
[LC-TR-4]  
cont.

Should you have any questions regarding this letter or require additional information, please contact Sherie George at (510) 286-5535 or [sherie.george@dot.ca.gov](mailto:sherie.george@dot.ca.gov).

Sincerely,

for  
PATRICIA MAURICE  
District Branch Chief  
Local Development - Intergovernmental Review

c: State Clearinghouse

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"



A-UCSF2



Lori Yamauchi  
Associate Vice Chancellor  
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2<sup>nd</sup> Floor, Box 0286  
San Francisco, CA 94143-0286  
Tel: (415) 476-2911  
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November 3, 2015

Tiffany Bohee, Executive Director  
Office of Community Investment & Infrastructure  
One South Van Ness Avenue, 5th Floor  
San Francisco, CA 94103

**RE: Comments on Warriors' San Francisco Event Center  
Final Subsequent Environmental Impact Report  
OCII Case No. ER 2014-919-97**

Dear Ms. Bohee:

On behalf of the University of California, San Francisco (UCSF) and Chancellor Sam Hawgood, I wish to express UCSF's support for the proposed Golden State Warriors' Event Center project, the certification of the Final Subsequent Environmental Impact Report, and the Office of Community Investment and Infrastructure (OCII) Commission's adoption of Findings and Mitigation Monitoring and Reporting Program; and approval of the Design for Development Amendments, Major Phase application and Schematic Design.

Since the Warriors announced its intent to build a new Event Center/Arena complex at Mission Bay, UCSF has expressed its concerns about the impacts of the proposed Event Center on traffic and parking in the area, with particular focus on the effects on patient safety. We have reviewed and commented on multiple documents issued by the City on the Event Center project, as well as participated in numerous community meetings. UCSF representatives testified before the OCII Commission and before the Planning Commission, and submitted a letter with its comments on the Draft Subsequent EIR. We have reviewed the Responses to Comments and the Final SEIR, and concluded that the City's responses to our comments are generally satisfactory.

We appreciate the addition of a Local Hospital Access Plan to the Transportation Management Plan for the project, which will discourage event attendees arriving

A-UCSF2

Page 2  
Ms. Bohee

by car from using local streets within Mission Bay to get to parking facilities serving the Event Center. This plan will use signage and PCOs to direct event attendees to designated routes and away from streets in the Local Hospital Access Plan network.

We also appreciate the proposed off-site parking to the south of the event center for use by event attendees, namely the 19<sup>th</sup> Street lot on Port property at Pier 70 and the Western Pacific site near Pier 80. As the SEIR notes, this parking is intended to help to alleviate pre-event traffic impacts at intersections in and adjacent to the UCSF Medical Center at Mission Bay, particularly when there are large, overlapping events at the Event Center and at AT&T Park.

We wish to reiterate that UCSF is unable to make its off-street parking garages and lots available to event attendees arriving by car because UCSF needs this parking to meet demand from its staff, patients and visitors.

We also appreciate the proposed Mission Bay Transportation Improvement Fund, or Special Reserve Account, including the Designated Overlapping Event Reserve Account, to fund traffic management programs implemented by the City to serve the project. We also appreciate the proposed formation of an Advisory Committee, which would include UCSF, to advise the MTA and other city departments on improvement measures and City actions and expenditures needed to address traffic congestion associated with the Event Center.

We appreciate the refinements to the construction tower crane plan, which will place the tower cranes outside the UCSF helipad airspace, so that our emergency helicopters can access UCSF's medical helipad safely.

We appreciate the proposed Muni UCSF/Mission Bay Station variant which will replace the existing passenger platforms with a single platform which extends south of and away from the UCSF student housing. We support this variant, and recommend that the OCII Commission adopt it as part of the project approval.

We wish to point out a few areas where we believe the Final SEIR and the project could be strengthened:

- First, we request that the City make long-term commitments on providing the off-site parking at 19<sup>th</sup> Street and the Western Pacific sites to serve the Event Center. 1  
[LC-TR-15]
- Second, we ask that the City, working with Caltrans, provide a solution to the traffic congestion at the Mariposa I-280 northbound off-ramp during pre-event peak periods. UCSF requested a mitigation measure to reconfigure the off-ramp lanes to better 2  
[LC-TR-10]



Page 3  
Ms. Bohee

## A-UCSF2

segregate Event Center traffic from UCSF and other non-Event Center traffic. We believe that this is a feasible and effective measure.

2  
[LC-TR-10]  
cont.

- Third, we ask that in Mitigation Measure M-TR-9d, Event Center Exterior Lighting Plan, that the words "where feasible" be deleted. The Warriors have a large site to work with, and it seems reasonable that they could "avoid the use of light configurations similar to those associated with the UCSF helipad landing area, and locate primary outdoor lighted displays and television/lighted screens away from the project property line at 16th Street, South Street, or Third Street" without adding the qualifying "where feasible." This is important for the safety of patients, pilots, and persons in the vicinity.
- Finally, we ask that the City produce an explanation of how the wastewater treatment capacity at Mission Bay's Mariposa basin will be made adequate to serve all projected development at Mission Bay, and what the mitigation plan is and the solution is to this longstanding problem. Despite repeated requests from UCSF, the City has produced no information, nor identified a specific solution to this problem. This will affect all development parties at and around Mission Bay, including UCSF, both in wastewater service for existing facilities, as well as proposed new facilities.

3  
[LC-TR-16]

4  
[LC-UTIL-1]

In addition, we note that there is an error in the staff memorandum to the OCII Commission regarding certification of the Final Subsequent EIR for the Warriors Event Center and Mixed Use Development. On page 17, 4<sup>th</sup> paragraph of the memorandum, it states "The Project Sponsor and UCSF have signed a Memorandum of Understanding ("MOU") through which UCSF consents to the Gatehouse location." This is not true, as the MOU relates only to traffic conditions during the overlapping events, and not the Gatehouse location. This error should be corrected.

Thank you for the opportunity to comment on the FEIR. UCSF is supportive of a successful Event Center project, and looks forward to providing further input and coordination as the project moves on to the implementation phase.

Should you have any questions, please contact me at (415) 476-8312.

Sincerely,



Lori Yamauchi, Associate Vice Chancellor



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

November 2, 2015

Tiffany Bohee  
Executive Director  
Office of Community Investment and Infrastructure  
One S. Van Ness Ave., 5<sup>th</sup> Floor  
San Francisco, CA 94103

Subject: Response to Comments on the DSEIR for the Event Center & Mixed-Use Development at Mission Bay Blocks 29-32 (Project).

Dear Ms. Bohee:

The Bay Area Air Quality Management District (Air District) is willing to assist the City and County of San Francisco (City) by administering an off-site mitigation program to reduce this Project's significant air quality impacts to the extent feasible. As we have discussed extensively with City staff, the \$321,646 identified in M-AQ-2b is not sufficient to achieve the 17 tons per year of ozone precursor emission reductions needed for this Project. Due to the nature of air quality impacts that need to be mitigated, comparison of the Air District off-site mitigation program identified for this Project to other air district programs is inappropriate and incorrect.

The amount of funds required to reduce 4.4 tons of reactive organic gases (ROG) and 12.6 tons of oxides of nitrogen (NOx), including a 5 percent administration fee, is \$620,922. This amount is based on a study of the Air District's Vehicle Buy Back (VBB) program funds spent over the last 3 years and represents the average cost of reducing ROG and NOx during that three year period. Only through the VBB program can the Air District achieve the contemporaneous emission reductions and other conditions set forth in M-AQ-2b.

Air District staff continues to be willing to assist the City in implementing an off-site mitigation program. However, the Final Environmental Impact Report Response to Comments includes the following statement: "Acceptance of this fee by the BAAQMD shall serve as an acknowledgement and commitment by the BAAQMD to: (1) implement an emissions reduction project(s) within one year of receipt of the mitigation fee to achieve the emission reduction objectives specified above [i.e. 17 tons of ozone precursors per year]". Given this language, unless the City amends M-AQ-2b to fund this feasible mitigation measure at the \$620,922 level previously discussed with City staff, the Air District will be unable to participate in offsetting this Project's air quality impacts.

1  
[LC-AQ-1]

ALAMEDA COUNTY  
Tom Bates  
Margaret Fujioka  
Scott Haggerty  
Nate Miley

CONTRA COSTA COUNTY  
John Gioia  
David Hudson  
Karen Mitchoff  
Mark Ross

MARIN COUNTY  
Katie Rice

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James Spering

SONOMA COUNTY  
Teresa Barrett  
Shirlee Zane

Jack P. Broadbent  
EXECUTIVE OFFICER/APCO



A-BAAQMD2

Tiffany Bohee

November 2, 2015

If you have any questions, please contact Alison Kirk, Senior Environmental Planner, at (415) 749-5169 or [akirk@baaqmd.gov](mailto:akirk@baaqmd.gov).

Sincerely,

  
Jean Roggenkamp  
Deputy Executive Officer

cc: BAAQMD Vice Chair Eric Mar  
BAAQMD Director John Avalos  
BAAQMD Director Edwin M. Lee



METROPOLITAN  
TRANSPORTATION  
COMMISSION

A-MTC

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October 30, 2015

Tiffany Bohee, Executive Director  
Office of Community Investment and Infrastructure  
One South Van Ness Avenue, 5th Floor  
San Francisco, CA 94103

Re: Mission Bay Event Center - Transportation Mitigation Measures

Dear Ms. Bohee,

Metropolitan Transportation Commission ("MTC") staff have reviewed the Subsequent Environmental Impact Report (SEIR) and related Transportation Mitigation Measures for the proposed Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 (Project).

In particular, staff has considered the assumptions and approaches outlined in the SEIR relative to mode choice and the analysis of project-serving transportation projects as well as the relationship of transportation projects identified in the SEIR relative to transportation projects included in the Regional Transportation Plan/Sustainable Communities Strategy adopted in 2013, Plan Bay Area (PBA). We believe that the assumptions encompassed in the SEIR are sound and appropriately conservative and the transportation project analysis considers the relevant transportation projects for analysis. From a regional perspective, this location is well-served by transit and would likely experience a high percentage of non-auto mode trips in comparison to most Bay Area locations. Our detailed comments are outlined below.

#### Plan Bay Area & Priority Development Areas

As discussed in Plan Bay Area, the Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area, prepared by MTC and the Association of Bay Area Governments (ABAG), Mission Bay is included within one of San Francisco's Priority Development Areas (PDAs). PDAs are, in short, "transit-oriented, infill development opportunity areas." (Plan Bay Area, p. 77.) The Plan Bay Area anticipates that the majority of future development within the San Francisco Bay Area, including 78 percent of new housing and 62 percent of new jobs, will occur within the region's PDAs. (Plan Bay Area, pp. 26, 57.) Development of the Project within Mission Bay is consistent with Plan Bay Area's goal to promote infill development and the creation of jobs within the region's PDAs.

To encourage more development near high-quality transit and reward jurisdictions that produce housing and jobs, Plan Bay Area proposes to target transportation investments in

1  
[LC-TR-9]

2  
[LC-PP-4]



## A-MTC

Re: Mission Bay Event Center - Transportation Mitigation  
Measures Tiffany Bohee  
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PDAs and to support planning efforts for transit-oriented development in PDAs. For example, in May 2012, MTC approved a new funding approach that directs specific federal funds to support more focused growth in the Bay Area. MTC committed \$320 million through 2017 (and \$14.6 billion through 2040 - the life of the plan), from federal surface transportation legislation currently known as MAP-21 (Moving Ahead for Progress in the 21st Century) towards the One Bay Area Grant (OBAG) program. (Plan Bay Area, p. 76.) The OBAG program allows communities flexibility to invest in transportation infrastructure that supports infill development by providing funding for bicycle and pedestrian improvements, local street repair, and planning activities. Within San Francisco, at least 70 percent of OBAG investments must be directed to the City's PDAs. In short, Plan Bay Area is designed to provide the transportation investments necessary to allow PDAs to accommodate the dense land use development envisioned by the Plan.

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[LC-PP-4]  
cont.

### User Mode Choice

The approach to estimating mode choice relies on observed data from AT&T Park/the San Francisco Giants and the Moscone Center, combined with conservative assumptions regarding transit, pedestrian, and bicycle use. The presence of analogous developments in the vicinity of the Mission Bay location with observed data on travelers is a very useful asset to the Mission Bay project and the analysis wisely leverages this information. MTC believes the mode split described for the project is reasonable and achievable.

3  
[LC-TR-5]

### Regional Transportation Infrastructure

The baseline transportation network for the Project is adequately described in the SEIR. Relative to transportation impacts the information cited regarding the Central Subway and Muni Forward projects is correct. Expanded Muni boarding islands to accommodate passenger demand is a beneficial infrastructure investment that will increase transit capacity during peak usage periods. Therefore, improvements to the Muni UCSF/Mission Bay Station Platform, both under the proposed project and the Muni UCSF/Mission Bay Station Variant, will benefit not only the Project but also Muni transit riders within Mission Bay generally.

The SEIR describes Muni shuttle routes that are not specifically included in Plan Bay Area. This type of flexible, relatively low cost operational effort does not have to be included in Plan Bay Area. However, it should be noted that similar service boosts were included in PBA related to two major, multi-phase neighborhood development projects in San Francisco, Treasure Island & Hunters Point/Candlestick Point. Similar to Mission Bay, both of these neighborhoods are Priority Development Areas (PDAs) and will be incorporating a large share of Plan Bay Area's growth allocation of housing and jobs for the City and County of San Francisco through 2040.

4  
[LC-TR-8]

The SEIR includes a cumulative impact analysis that is appropriately comprehensive and reflects nearby planned development in the Mission Bay neighborhood as well development that is envisioned in the Central SOMA neighborhood plan. Infrastructure investments analyzed in the cumulative impact analysis include: Interstate 280 ramp changes; the extension of the MUNI 22-Fillmore trolley bus to Mission Bay; the Central Subway; the Muni Forward service and capacity improvement project; the addition of the new, expanded Transbay Terminal; Caltrain Electrification; the Downtown Extension that will link Caltrain from its current terminus at 4th and King to the Transbay Terminal; and, unspecified capacity upgrades for other regional transit operators. Regional improvements like those addressed in the cumulative impact analysis are funded through MTC, its \$293 billion regional transportation plan budget through 2035, encompassing reasonably anticipated regional, state and federal fundings sources. Moreover, it should be noted that a number of the regional improvements addressed in the SEIR including the Central Subway are already under construction.

## A-MTC

Re: Mission Bay Event Center - Transportation Mitigation Measures  
Tiffany Bohee  
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### Conclusion

In summary, the SEIR reflects key regional projects serving the arena vicinity including the Central Subway and Muni Forward projects (as the project would be directly served by both). Improvements to other systems – like BART and Caltrain – that do not provide direct service but would be accessible from the proposed arena and provide service to the vicinity from the East Bay and the Peninsula are also described in the SEIR. Both BART and Caltrain have projects included in Plan Bay Area that will provide for expanded service and capacity of those systems. These projects and their connectivity to local-serving transit projects such as the Central Subway and MUNI Forward further support the mode choice assumptions outlined in the EIR.

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[LC-TR-9]

Please let us know if you have any questions related to MTC's analysis of the Mission Bay Event Center SEIR.

Sincerely,



Ken Kirkey  
Director, Planning



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**Brandt-Hawley Law Group**

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October 13, 2015

Tiffany Bohee, OCII Executive Director  
c/o Brett Bollinger, San Francisco Planning Department  
via email [warriors@sfgov.org](mailto:warriors@sfgov.org)

Subject: Pier 80 Alternate Site for Warriors Event Center  
OCII: ER 2014-919-97 Planning Dept.: 2014.1441E

Dear Ms. Bohee and Mr. Bollinger:

The Mission Bay Alliance submitted extensive comments on the Draft Subsequent EIR ('DSEIR') in late July and is looking forward to the OCII's responses. In the meantime, I write on behalf of the Alliance to present a solution to a key inadequacy of the DSEIR: the failure to analyze a potentially-feasible alternate site.

The Alliance informally disclosed its identification of Pier 80 as a feasible alternate project site to representatives of the City and the Warriors last month, and now formally requests that the OCII revise the DSEIR to analyze that site and recirculate for public and agency comment, as required when "significant new information" emerges. (Pub. Resources Code, § 21092.1; Guidelines, § 15088.5.) While Mayor Ed Lee's response to discovery of a feasible project venue at Pier 80 has been to accuse the Alliance of being unreasonable and, further, to announce that the City has already "reached a consensus" with the Warriors and UCSF regarding the Mission Bay site (see attached press), the Alliance looks to the OCII and the City to fully explore the Pier 80 site in a revised DSEIR as mandated by state law.

As you know, the DSEIR concludes that locating the Warriors Event Center in Mission Bay would create significant environmental impacts. The impacts were

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[LC-ALT-1]

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recently underscored by a prominent group of UCSF faculty who are also members of the US National Academy of Sciences. Their letter to Mayor Lee (attached) expresses grave concern that because of traffic gridlock adjacent to UCSF Medical Center, "it is absolutely clear to us that the planned new Golden State Warriors Arena and Events Center in Mission Bay would severely degrade the environment for the many thousands of researchers and private sector biomedical scientists who come to work at Mission Bay each day."

In light of project impacts, the City and OCII cannot approve the Event Center at Mission Bay if there is a feasible alternate site that would accomplish most project objectives and substantially reduce environmental problems:

Public agencies should not approve projects as proposed if there are feasible alternatives ... available which would substantially lessen the significant environmental effects of such projects.

(Pub. Resources Code, §§ 21002, 21081.)

Although the Alliance had no obligation to do so, it took the practical step of searching for a better site for the Event Center when the EIR consultants did not. Its efforts culminated in success. The Alliance discovered that a site located near San Francisco's Pier 80 would both meet fundamental project objectives and substantially reduce environmental impacts. A potentially-feasible site that avoids or substantially lessens significant impacts of a project must be analyzed in an EIR even if it "could impede to some degree the attainment of the project objectives, or would be more costly..." (Guidelines, § 15126.6, subd. (b)). Here, the Pier 80 site in fact would not impede the project objectives nor be more costly.

As explained previously, the DSEIR failed to analyze a potentially-feasible off-site alternative as required by CEQA Guidelines section 15126.6. (See my comment letter submitted on behalf of the Alliance on July 26, 2015, pp. 8-11.)

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[LC-ALT-1  
cont.]



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Warriors Event Center Alternate Site  
October 13, 2015  
Page 3 of 6

### The Pier 80 Site.



Located 11 blocks from the Mission Bay site, on 21+ acres well-served by transportation corridors, light rail, and buses, Pier 80's advantages include:

- The arena requires less than 7 acres and could be sited in at least three possible footprints on the 3-times-larger Pier 80 site. (One possible footprint is depicted on the site map above.)
- At the south end of the City, the site provides easy access from all directions, including the southern peninsula. The Highway 280 offramp ends at the site, and Highway 101 is 1/3 mile away. Adjacent Cesar Chavez is a major thoroughfare heavily serviced by muni buses. The Marin Street light rail abuts the site's southern boundary. There is ample access to parking.

1  
[LC-ALT-1]  
cont.

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- The Pier 80 site's internal streets are in an "H" configuration and only serve tenants of those sites. The streets within the site could easily be abandoned. No through traffic would be impacted by the arena.
- Buildings now on site, including warehouses and lumberyards, are blighted.
- The site's size and location are conducive to ancillary revitalizing development of retail, restaurants, and housing of all market types.

**Consistency with Project Objectives.** The California Supreme Court mandates that environmental impact reports analyze potentially-feasible alternatives that meet 'fundamental' objectives. (*In re Bay Delta* (2008) 43 Cal.4th 1143, pp. 1165-1166.) Project *objectives* differ from a project's *description* and are not dependent on the currently-proposed Mission Bay site. Fundamental objectives of the Warriors Event Center as recited in the DSEIR will be met at the Pier 80 site:

- Construct a state-of-the-art multi-purpose event center in San Francisco that meets NBA requirements for sports facilities, can be used year-round for sporting events and entertainment and convention purposes with events ranging in capacity from approximately 3,000-18,500, and expands opportunities for the City's tourist, hotel and convention business.
- Provide sufficient complementary mixed-use development, including office and retail uses, to create a lively local and regional visitor serving destination that is active year-round, promotes visitor activity and interest during times when the event center is not in use, provides amenities to visitors of the event center as well as the surrounding neighborhood, and allows for a financially feasible project.
- Develop a project that meets high-quality urban design and high-level sustainability standards.

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[LC-ALT-1]  
cont.



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Warriors Event Center Alternate Site  
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- Optimize public transit, pedestrian and bicycle access to the site by locating the project within walking distance to local and regional transit hubs, and adjacent to routes that provide safe and convenient access for pedestrians and bicycles.
- Provide adequate parking and vehicular access that meets NBA and project sponsor's reasonable needs for the event center and serves the needs of project visitors and employees, while encouraging the use of transit, bicycle, and other alternative modes of transportation.
- Provide the City with a world class performing arts venue of sufficient size to attract those events which currently bypass San Francisco due to lack of a world class 3,000-4,000 seat facility.
- Develop a project that promotes environmental sustainability, transportation efficiency, greenhouse gas reduction, stormwater management using green technology, and job creation consistent with the objectives of the California Jobs and Economic Improvement Through Environmental Leadership Act (AB 900), as amended.

(DSEIR, pp. 3-5 to 3-6.) While the DSEIR also lists ancillary objectives solely relevant to the deeply-flawed Mission Bay site, they are not fundamental to the arena project. Only the objectives listed above are fundamental to the project, as they have been constant since the Warriors' prior selection of the now-abandoned Piers 30-32 site.

**Reduced Impacts at Pier 80 Site.** The key question and first step in DSEIR analysis of the Pier 80 site must be "whether any of the significant effects of the project would be avoided or substantially lessened" at that location. (See Pub. Resources Code, §§ 21002, 21081.) A wide range of significant impacts of the Warriors' Event Center will be eliminated or reduced at the ample Pier 80 site, without compromising any fundamental project objectives.

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[LC-ALT-1]  
cont.

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Warriors Event Center Alternate Site  
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For example:

- Project-induced increases in traffic impacts would not combine with the San Francisco Giants' baseball game traffic to the same extreme extent.
- Event Center traffic would not interfere with patients' emergency access to UCSF Medical Center.
- Land use impacts due to the Event Center's incompatibility with long-standing plans for Mission Bay as a hub for biosciences would be avoided.
- Vibrations affecting sensitive research equipment at UCSF would be avoided.

As repeatedly held by the California Supreme Court, project alternatives form the core of every EIR. Objective analysis of the feasibility of siting the Warriors Event Center near Pier 80 must now occur in CEQA's prescribed public process to foster informed decision-making and public participation. Otherwise, the DSEIR will not yet have provided a good-faith effort at full disclosure of a range of reasonable project alternatives, as mandated by CEQA Guidelines section 15126.6, subd.(a) and interpreted by a substantial body of case law.

Thank you for your attention to this request. Please advise whether the OCII will agree to revise and recirculate the DSEIR to study the Pier 80 site.

Sincerely yours,  
  
Susan Brandt-Hawley  
for the Mission Bay Alliance

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[LC-ALT-1]  
cont.



## O-MBA14B2

### 1. Opponents of Warriors arena in Mission Bay want project moved south

By Laura Dudnick, SF Examiner – September 28, 2015

### 2. Bay Bridge builder in black despite penalties

By Martier & Ross, San Francisco Chronicle – September 25, 2015

### 1. Opponents of Warriors arena in Mission Bay want project moved south

By Laura Dudnick, SF Examiner – September 28, 2015

Opponents of a plan to build a Golden State Warriors arena in Mission Bay have identified an alternative location for the project and are urging city and team leaders to consider the site.

The 21-acre site near Pier 80 in the Bayview has been proposed by the Mission Bay Alliance, a group led by former UC San Francisco officials who argue the arena in Mission Bay will create detrimental traffic congestion and permanently scar the neighborhood.

The suggested site, more than half of which is owned by The City, is 11 blocks south of where the arena is currently planned on about 11 acres of waterfront land at Third and 16th streets, across from UCSF's new hospitals and research centers.

It marks the first specific alternative site proposed by the Mission Bay Alliance, the primary opposition to the project in Mission Bay. UCSF nurses have also expressed concerns with building an arena adjacent to the new hospitals, but UCSF leaders announced support for the project over the summer, contingent on a plan for managing traffic in the long term.

In the draft environmental report, city planners outlined nearly \$40 million in transit improvements slated for Mission Bay that are aimed to curb traffic congestion created in part by the proposed arena. That includes purchasing new Muni light-rail vehicles, allowing crossover tracks for the vehicles to pass on the T-Third Street line, and extending the adjacent Muni platform near the arena.

But the alliance remains vehemently against the arena in Mission Bay and noted numerous "fatal flaws" in building a multi-use facility across from UCSF Medical Center, including noise, air pollution and traffic.

The alliance met with the Warriors on Sept. 22 and Mayor Ed Lee the previous week to share the proposed alternative, said Sam Singer, a spokesman for the alliance.

"They listened politely and with interest to the information we provided them about the alternative location near Pier 80," Singer said.

However, it appears that Lee still favors the Mission Bay site.

"The mayor is focused on the site that has been discussed with the community for more than a year and he joins many, many others in strong support for an arena in Mission Bay, where it will be a great neighbor and partner to UCSF and a great asset to the community," Christine Falvey, the mayor's spokeswoman, wrote in an email to the San Francisco Examiner.

PJ Johnston, a spokesman for the Warriors, declined to comment on any location other than the current site in Mission Bay, but said that spot has been thoroughly vetted.

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"The opponents want the Mission Bay property for themselves, but just because they have a lot of money doesn't mean they can grab the land or hijack the public process," Johnston wrote in an email to the San Francisco Examiner.

"The Warriors, The City and the community have been engaged in a public planning process for more than a year on the Mission Bay location. San Franciscans are overwhelming supportive of the plan," he added.

The Mission Bay Alliance plans to formally submit its proposed Bayview site to The City as part of the environmental impact review process, Singer said. The draft EIR was released in June, and a final draft is expected this fall.

"The Warriors were in a rush to find a new site when they realized...The Embarcadero wasn't going to work out. They grabbed the first piece of property without doing the appropriate due diligence," said Singer, referring to the previous controversial effort to build the arena at Piers 30-32 before the Warriors purchased the current Mission Bay plot from Salesforce.com.

Singer touted advantages of the site near Pier 80, including additional and less expensive parking. The site borders Interstate Highway 280 and is just off the Third Street Muni light-rail route. There are parcels on the site – mostly warehouses and for industrial uses – that are privately owned, but Singer said the owners contacted by a real estate representative of the alliance have indicated they might be interested in selling their property.

"You couldn't ask for a better location if you were the Warriors," Singer said.

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### 2. Bay Bridge builder in black despite penalties

By Martier & Ross, San Francisco Chronicle – September 25, 2015

Even after being penalized millions of dollars for problem-plagued work, the lead builder of the new Bay Bridge eastern span is walking away a financial winner — thanks to its rush job to get the bridge open by Labor Day weekend in 2013.

The Bay Bridge project's oversight committee decided last week that the lead contractor, the joint venture American Bridge/Fluor, was partly to blame for the construction fiasco that resulted in 32 high-strength steel rods snapping on the span's seismic stabilizers. Throw in a few bucks for the continuing troubles with rods at the base of the signature tower, and American Bridge/Fluor was docked a cool \$11 million.

But don't feel too bad — when the bridge opened to traffic on time in September 2013, thanks to a last-minute sprint, American Bridge/Fluor was rewarded with almost \$49 million in bonuses.

By our math, even with the penalties, that still puts the bridge's builder ahead by \$38 million.

"The incentive was to get the bridge built by Labor Day — that was the deal written into the contract, and they met it," said Randy Rentschler, spokesman for the Metropolitan Transportation Commission.



## O-MBA14B2

“The question of construction defects became a separate issue,” he said, “and now that subject has been dealt with — like it or not.”

**Arena buzz:** The group opposing the Golden State Warriors’ planned Mission Bay arena is pushing the team to consider yet another site — an industrial patchwork 11 blocks south of the current proposed spot.

The Warriors already shifted plans once, transplanting their dreams from Piers 30-32 to a spot next to UCSF’s Mission Bay medical center. Now the Mission Bay Alliance — a group of deep-pocketed UCSF donors who want the proposed arena site set aside for the medical center’s expansion — says there’s a much better spot.

It’s a 20-acre mix of warehouses, lumberyards and empty lots off Cesar Chavez Street, some of which is already owned by the city. It’s next to Muni’s Third Street light-rail line and Interstate 280, and about a third of a mile from Highway 101.

“It’s tailor-made for the Warriors, right on a Muni rail line, and there is ample parking,” said Mission Bay Alliance spokesman Sam Singer.

The group has met privately with both Mayor Ed Lee and the Warriors’ lawyers to discuss the idea. We’re told the alliance members — led by mega-rich UCSF donors Bill Oberndorf and Sandy Robertson — even offered to help finance the land purchase.

The Warriors, however, are showing little interest.

“The Warriors are focused on the site in Mission Bay,” said team spokesman P.J. Johnston. “The public clearly supports this location.”

He also accused the alliance of playing politics.

“The oldest play in the book is to say, ‘We love a project — we just want it at a different location,’” Johnston said.

Lee’s office was equally blunt, sending us a statement Friday saying alliance members “have no interest in being reasonable or working with the city to resolve what they say their concerns are.”

The group’s strategy, the statement said, is “to bring in the high-priced lawyers and litigate.”

**A-ticket:** Leading the minority in the House may not be a dream job, but there was one major perk last week: the number of tickets available to hand out for Pope Francis’ speech to Congress.

While most lawmakers had one prized ticket to give out, Rep. Nancy Pelosi, D-San Francisco, had at least eight.

Her guests included such heavyweights as:

- Salesforce chief and big-time charity and political donor Marc Benioff and his wife, Lynne. Benioff is active in San Francisco’s Catholic community and a close friend of Archbishop Salvatore Cordileone, whose anti-same-sex marriage campaigning has raised hackles among liberal parishioners.

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- Megabucks environmentalist and possible gubernatorial contender Tom Steyer and his wife, Kat Taylor.

- Service Employees International Union president Mary Kay Henry, whose union represents 1.5 million public employees and health care workers nationwide.

- Matilda Cuomo, widow of New York Gov. Mario Cuomo.

- Plus Pelosi’s brother, former Baltimore Mayor Thomas D’Alessandro III, and the congresswoman’s husband, Paul Pelosi.

Sen. Dianne Feinstein gave her ticket to Democratic donor Elizabeth Bagley, who is active in children’s issues.

Oakland Democratic Rep. Barbara Lee’s ticket went to the Rev. Jay Matthews, rector at the Cathedral of Christ the Light in Oakland, while Rep. Mark DeSaulnier, D-Concord, gave his to St. Mary’s College President James Donahue.

Rep. Jackie Speier, D-Hillsborough, brought her son’s godmother, Katy Lawson, to the event and rounded up about 120 tickets for congressional janitors, police officers and other support staff.

Deja vu: The design hasn’t change much, but George Lucas is scaling back the Chicago version of his Museum of Narrative Art.

Chicago Tribune architecture critic Blair Kamin is calling it “the Weight Watchers version of Jabba the Hutt.”





O-MBA14B2

September 22, 2015

The Honorable Edwin M. Lee  
City Hall, Room 200  
1 Dr. Carlton B. Goodlett Place  
San Francisco, CA 94102

Re: Golden State Warriors Arena and Events Center in Mission Bay

Dear Mayor Lee,

We write as faculty members at UCSF who are also members of the US National Academy of Sciences. Many of us either are, or have previously been, leaders on this Campus. We have seen this University rise to true excellence over the course of the past 40 years, and we look forward to an even greater future for UCSF and the exciting private biotech and medical organizations that it has attracted to Mission Bay. But we are seriously concerned that this future is threatened by the plan to construct a very large sports, entertainment, and event arena in our midst.

As you know, the plan for Mission Bay approved by the Board of Supervisors (October 1998) states, as one of the major objectives of this visionary project:

Facilitating emerging commercial and industrial sectors including those expected to emerge or expand due to the proximity to the new UCSF site, such as research and development, bio-technical research, telecommunications, business service, multi-media services, and related light industrial...

And indeed, Mission Bay has rapidly become one of the most prominent academic-industry biotechnology/medical complexes in the world. But we cannot stop here: we face increasing competition from other rapidly growing complexes of this type, both in the US and abroad. It will be critical to keep moving aggressively forward, if we are to continue to attract the very best talent – both academic and private sector – to San Francisco.

It is absolutely clear to us that the planned new Golden State Warriors Arena and Events Center in Mission Bay would severely degrade the environment for the many thousands of researchers and private sector biomedical scientists who come to work at Mission Bay each day. It would also curtail the beehive-like, daily exchanges of personnel – from the South Bay and elsewhere – on which the success of the Mission Bay biomedical complex depends. Our major fear is that the Mission Bay site will lose its appeal – not only for the new biomedical enterprises that the city would like to attract here, but also for most of its current occupants. The result could critically harm not only UCSF, but also the enormously promising, larger set of biomedical enterprises that currently promises to make San Francisco the envy of the world.

Much attention has been properly focused on how traffic gridlock caused by the new stadium would affect access to the three new UCSF hospitals that are immediately adjacent to the site, one of which houses one of only two Children's Emergency

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rooms in San Francisco. It is unavoidable that terrible, and possibly even life-threatening, traffic congestion will be associated with the planned complex, given that it is intended to be the site of some 220 events per year, held both in the evening and during the day (*New York Times*, September 6, 2015; business section, pages 1, 4 and 5). Many of us have experienced the hours-long gridlock that paralyzes all Mission Bay streets before and after San Francisco Giants home games. The absolute paralysis that it creates is already a non-trivial problem, which the planned stadium promises to both greatly expand and intensify.

The presence of the 41,000-seat AT&T Park less than a mile (a 15-minute walk) from UCSF Mission Bay has not been sufficiently factored into the plans to build the Warriors' huge new sports/entertainment complex. The ballpark already significantly impacts life and work at Mission Bay, with nearly 50 San Francisco Giants home weekday games per season. Due to these events, it can take cars and UCSF shuttle buses over an hour to exit from the UCSF parking lot onto the streets, and a 20-minute trip may require two hours.

The widespread traffic impact of AT&T Park games is noted on the website for the San Francisco Municipal Transportation Agency (SFMTA):

"Motorists are advised to avoid the increased congestion in downtown San Francisco related to these special events and advises commuters to use transit, taxis, bicycles or walk and to avoid using the Bay Bridge in the two hours before or after these games. ... As a reminder to fans, in order to reduce congestion on city streets after all events at AT&T Park, the SFMTA will close eastbound King Street between 3rd and 2nd streets from the seventh inning until after the post-game traffic has died down. Additionally, the northbound portion of the 4th Street (Peter R. Maloney) Bridge will be closed to all traffic except streetcars, buses, taxis and bicycles during the post-game period. (<https://www.sfmta.com/news/press-releases/sfmta-weekend-transit-and-traffic-advisory>)

Adding an 18,500-seat Warriors complex on top of what is already a transportation mess is asking for disaster. We are highly skeptical of any plan that proposes to segment traffic by restricting 4th street and other routes for "UCSF business only," since those of us at Mission Bay have experienced the unruly behavior of frustrated drivers stuck for long times in traffic jams. In fact, there is no believable transportation solution for two very large complexes placed in such close proximity at Mission Bay.

Imagine dropping a 41,000-seat stadium anywhere within a 1-mile radius of San Francisco City Hall, and then tripling the capacity of Bill Graham Civic Auditorium. It would make no sense, for the same reason that it makes no sense to squeeze the planned Warriors facility into the Mission Bay neighborhood. The resulting perfect storm of traffic would make it miserable for both the existing neighborhood and for sports fans – in addition to threatening the entire future of UCSF as the center of a world-class academic/ biotech/medical complex.

In summary, we urge you and the city to reconsider the wisdom of proceeding with



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current construction plans.

Sincerely yours,

**Bruce Alberts**, Chancellor's Leadership Chair in Biochemistry and Biophysics for Science and Education  
**Elizabeth Blackburn**, Professor of Biochemistry and Biophysics, and Nobel laureate  
**James Cleaver**, Professor of Dermatology and Pharmaceutical Chemistry  
**John A. Clements**, Professor of Pediatrics and Julius H. Comroe Professor of Pulmonary Biology, Emeritus  
**Robert Fletterick**, Professor of Biochemistry, Pharmaceutical Chemistry, and Cellular and Molecular Pharmacology  
**Carol Gross**, Professor of Microbiology  
**Christine Guthrie**, Professor of Biochemistry and Biophysics  
**Lily Jan**, Professor of Physiology, Biochemistry and Biophysics  
**Yuh-Nung Jan**, Professor of Physiology  
**Alexander Johnson**, Professor of Microbiology and Immunology, and Biochemistry and Biophysics  
**Cynthia Kenyon**, Emeritus Professor, UCSF, and Vice President, Aging Research, Calico Life Sciences  
**Gail Martin**, Professor Emerita, Department of Anatomy  
**Frank McCormick**, Professor Emeritus, UCSF Helen Diller Family Comprehensive Cancer Center, David A. Wood Distinguished Professorship of Tumor Biology and Cancer Research  
**Ira Mellman**, Professor (Adjunct) of Biochemistry and Biophysics  
**William J. Rutter**, Chairman Emeritus, Department of Biochemistry, and Chairman, Synergenics LLC  
**John Sedat**, Professor Emeritus, Department of Biochemistry & Biophysics  
**Michael Stryker**, William Francis Ganong Professor of Physiology  
**Peter Walter**, Professor of Biochemistry and Biophysics  
**Arthur Weiss**, Professor of Medicine, and of Microbiology and Immunology  
**Zena Werb**, Professor of Anatomy

Cc: Tiffany Bohee

O-MBA15S5



tel: 916.455.7300 · fax: 916.244.7300  
1010 F Street, Suite 100 · Sacramento, CA 95814

October 20, 2015

SENT BY U.S. MAIL AND EMAIL (warriors@sfgov.org)

Tiffany Bohee  
c/o Brett Bollinger  
San Francisco Planning Department  
1650 Mission Street, Suite 400  
San Francisco, CA 94103

**RE: Supplemental Comments on Environmental Review for Warriors  
Event Center and Mixed-Use Development at Mission Bay Blocks 29-  
32 – Updated Soil and Screening Levels**

Dear Ms. Bohee:

This firm represents the Mission Bay Alliance (“MBA”) with respect to the Warriors Event Center Project (“Project”). These comments supplement MBA’s prior comments on the Draft Subsequent Environmental Impact Report for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (“DSEIR”) and associated environmental review for the Project.

As described in the July 26, 2015, comment letter submitted by this office regarding the DSEIR (“SM Law Comments”), hazards and hazardous materials associated with the Project site are inadequately analyzed in the 1998 Supplemental Environmental Impact Report prepared for the Mission Bay Redevelopment Plan (“1998 SEIR”). (See SM Law Comments, pp. 7-13 and BSK HazMat report, attached as Exhibit B to SM Law Comments.) In reliance on this flawed and outdated analysis, the DSEIR contains no analysis whatsoever of hazards. In addition, the 1999 Risk Management Plan, and the 2006 Revised Risk Management Plan for the site, referenced in the Initial Study prepared for the Project, also rely on outdated methodologies for identifying human health risks associated with exposure to hazards that could occur during construction and operation of the Project.

In order to demonstrate the inapplicability and ineffectiveness of the screening levels relied upon for the Project, the attached report prepared by Damian Applied Toxicology, LLC: (1) provides updated screening levels for the constituents at the site;

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[LC-HAZ-1]



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Tiffany Bohee  
Brett Bollinger  
October 20, 2015  
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(2) provides newly applicable screening levels that did not exist at the time of the 1998 EIR; (3) compares the new and old screening levels; and (4) compares the updated screening levels to the most recent site investigation data from the Project site. The Damian Report shows that the prior screening levels are completely outdated and do not protect public health. Using updated screening levels that address a wide range of relevant potential receptors and exposure pathways, the Damian Report concludes that 19 chemicals (18 in soil and 1 in groundwater) that were detected in the 2015 Phase II investigation at the site exceed at least one screening level. Indeed, in some instances, sampled soil exceeded screening levels by more than 10 times.

As the DSEIR completely fails to address these potentially significant hazards and hazardous materials impacts, it must be revised and re-circulated for public review prior to any action being taken on the Project. Thank you for considering these supplemental comments. Please feel free to contact my office with any questions.

Very truly yours,

**SOLURI MESERVE**  
A Law Corporation

By:   
Osha R. Meserve

ORM/mre

Attachment: Sept. 28, 2015 Report prepared by Damian Applied Toxicology, LLC

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[LC-HAZ-1]  
cont.

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**DAMIANAPPLIEDTOXICOLOGY, LLC**  
Advanced Assessment of Chemical Risks to Health and the Environment

[www.appliedtox.com](http://www.appliedtox.com)

October 20, 2015

Ms. Osha Meserve  
Soluri Meserve  
1010 F Street, Suite 100  
Sacramento, California 95814

Subject: Updated Soil and Groundwater Screening Levels for the Golden State Warriors Arena Construction Project in the Mission Bay South Redevelopment Plan Area, San Francisco

Dear Ms. Meserve:

Your office requested that **Damian Applied Toxicology, LLC (DAT)** develop updated soil and groundwater screening levels for the Golden State Warriors Arena Construction Project and compare those values to both the previous screening levels and site investigation data presented in the *Phase II Environmental Site Assessment (Phase II)* (Langan Treadwell and Rollo [LTR], 2015).

Screening levels are levels of a chemical in environmental media, for example soil or groundwater, which are considered safe for long-term exposure. Screening levels are developed based on the environmental media of interest, the exposed population of interest (e.g. residents or commercial workers), and the relevant exposure pathway (e.g. drinking water for groundwater or dermal contact with soil). Screening levels may be developed to protect human health or ecological receptors (e.g. aquatic and terrestrial wildlife). In most cases, regulatory agencies have already developed screening levels for certain chemicals in soil or water. However, in some cases (e.g. construction workers) no such screening levels have been developed and a risk assessor must develop new screening levels using scientifically-defensible methods and assumptions. Typically, such methods and assumptions are obtained from the United States Environmental Protection Agency (USEPA), the state agency responsible for review of health risk assessments, or a combination of the two.

The previous screening levels were originally presented in the *Risk Management Plan, Mission Bay Area, San Francisco, California* (RMP) (ENVIRON, 1999), and were referenced without revision in the *Revised Risk Management Plan* (BBL, 2006). Risk-based screening levels change fairly rapidly over time due to new developments in the toxicological science underlying such levels, as well as state and federal risk assessment policy changes. In addition, in most cases, screening levels become more stringent over time, not less so. Thus, in the 16 years since the 1999 RMP was prepared many of the originally proposed screening levels have become obsolete and are no longer adequately protective. Finally, the original screening levels did not address construction workers, exposure of indoor workers to volatile chemicals via vapor intrusion, or ecological risks. The purposes of this report therefore, are: 1) to update the 1999 screening levels, 2) provide new screening levels to address ecorisk, construction workers and vapor intrusion, 3) compare the new screening levels to the previous screening levels, and 4) compare the new screening levels to the most recent site investigation data as presented in the Phase II report (LTR, 2015). The following sets of screening levels were therefore developed for all of the chemicals originally listed in the 1999 RMP (as shown in Appendices B and E from that report):

- Soil screening levels for off-site (nearby) residents and on-site commercial workers
- Soil screening levels for on-site construction workers

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- Soil screening levels to protect ecological receptors (terrestrial wildlife)
- Groundwater screening levels for drinking water
- Groundwater screening levels to protect indoor workers from vapor intrusion
- Groundwater screening levels to protect aquatic life

Note that since no residential development is planned for the arena project site, screening levels were not developed for on-site residential use.

### SCREENING LEVEL DEVELOPMENT

Details regarding the development of the screening levels are provided below.

#### Soil Screening Levels for Off-Site Residents and On-Site Commercial Workers

Off-site residents located close to the site were identified as a potential receptor population in the 1999 RMP. This receptor would not have direct contact with site soils by either inadvertent ingestion or dermal contact but may be exposed to chemicals released into the air either by resuspension of soil particulates (for non-volatile chemicals such as metals) or by volatilization (volatile chemicals such as benzene). On-site commercial workers, on the other hand, would be directly exposed to site soils by soil ingestion, dermal contact and inhalation.

Updated soil screening levels for these receptors were obtained primarily from the latest version of the United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) (USEPA, 2015). However, if a corresponding Department of Toxic Substance Control (DTSC) value was available for a particular chemical that value was used preferentially (DTSC, 2015). For the off-site resident, exposed only via inhalation, the Inhalation Screening Level was used. It is important to note that both children and adults are taken into consideration in the development of the residential screening levels and the most stringent value protective of both the adult and child was used. For the on-site commercial worker, the screening level reflecting all soil exposure pathways was used. For carcinogenic chemicals the lower of the cancer or non-cancer risk-based value was used. The resulting values for non-volatile chemicals are shown in Table 1. Table 1 shows that many of the updated screening levels (particularly for the on-site commercial worker) are well below (more stringent than) the older 1999 screening levels (as indicated in yellow highlight).

It should be noted that the screening level for arsenic (12 mg/kg) is not health risk-based. The value of 12 mg/kg is based on the upper bound of naturally occurring arsenic in California (Bradford et al., 1996). By convention in California, a background-based value for arsenic is normally used as the screening level for arsenic at contaminated sites instead of a health risk-based value (California Environmental Protection Agency [CalEPA], 2005). This is because a strictly health risk-based value would be well below naturally occurring background levels.

The screening level for lead for on-site commercial workers is the California Human Health Screening Level (CHHSL) of 320 mg/kg (Office of Environmental Health Hazard Assessment [OEHHA], 2009). The same value is also protective of off-site residents as the contribution of inhalation exposure to lead is negligible relative to soil ingestion (DTSC, 2011), and off-site residents would only be exposed via inhalation.

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Updated screening levels for volatile chemicals in soil are shown in Table 2. Table 2 shows that virtually all of the updated screening levels for both off-site resident and on-site commercial worker are well below the older 1999 screening levels (as indicated in yellow highlight).

#### Soil Screening Levels for On-Site Construction Workers

The 1999 RMP did not address construction workers. However, construction workers have higher levels of exposure to soils than either residents or commercial workers. Therefore, screening levels for this receptor population are warranted.

Neither USEPA nor any California regulatory agency has developed risk-based screening levels for construction workers. However, USEPA has established calculation methods for developing such levels (USEPA, 2002 and 2015), and the California DTSC has established default exposure parameters for construction worker risk assessment that can be used in the USEPA equations. The soil construction worker equations presented in USEPA (2015) were used to calculate soil screening levels for the construction worker. Screening levels were calculated assuming worker exposure via soil ingestion, dermal contact with soil, and inhalation. The screening levels were calculated using the DTSC exposure parameters shown in Table 3. Toxicity criteria used in the calculations were obtained first from DTSC (2015), and if not available from DTSC (2015), from USEPA (2015). For carcinogenic chemicals the lower of the cancer or non-cancer risk-based value is shown as the final recommended screening value. The resulting screening levels for non-volatile chemicals are shown in Table 4. Note that the screening level for arsenic was assumed to be 12 mg/kg, as discussed previously. The screening level for lead for on-site construction workers was assumed to be the commercial/industrial worker CHHSL of 320 mg/kg (OEHHA, 2009). Screening levels for volatile chemicals are shown in Table 5.

#### Soil Screening Levels for Protection of Ecological Receptors

The 1999 RMP did not include any ecorisk-based soil screening levels, therefore, ecorisk-based soil screening levels for the protection of terrestrial wildlife were obtained from key USEPA references. Available screening levels for non-volatile chemicals and volatile chemicals are shown in Tables 6 and 7, respectively.

#### Groundwater Screening Levels Based on Drinking Water Exposure

Groundwater screening levels based on human drinking water exposure were considered to be the State of California enforceable drinking water standard, that is, the Maximum Contaminant Level (MCL) (CalEPA, 2015). However, if an MCL was not available for a particular chemical the USEPA RSL for tapwater ingestion was used (USEPA, 2015). The updated groundwater screening levels are shown in Table 8.

#### Groundwater Screening Levels to Protect Indoor Workers from Vapor Intrusion

The 1999 RMP did not include screening levels to protect indoor workers from vapor intrusion due to volatile chemicals in groundwater. The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), as part of its Environmental Screening Level (ESL) program, has developed groundwater screening levels to protect workers from this type of chemical exposure (SFBRWQCB, 2013). These values are shown in Table 9.

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### Groundwater Screening Levels for the Protection of Aquatic Life

The 1999 RMP also did not provide screening levels for the protection of aquatic life from contaminated groundwater. There is a potential for groundwater on the site to daylight or infiltrate into freshwater or estuarine wetlands. Therefore, groundwater screening levels protective of aquatic life were obtained for each of these aquatic habitat types from SFBRWQCB (2013). These values are shown in Table 10.

### COMPARISON OF PHASE II DATA TO UPDATED SCREENING LEVELS

Table 11 compares the updated soil screening levels to the maximum soil concentration reported in the Phase II (LTR, 2015). In the Phase II, soils were analyzed in some cases to a maximum depth of 31 ft below ground surface (bgs), but in all cases to at least 10 ft. However, with the exception of barium, the maximum concentrations were all detected within 10 ft bgs. The maximum detected concentration of barium was found at 20 ft; however, this value did not exceed any screening level.

Only those chemicals exceeding at least one of the updated screening levels are shown. Table 11 shows that 18 chemicals exceed at least one of the new screening levels and many of these chemicals exceed more than one screening value. Chemicals exceeding at least two screening levels include arsenic, benzo(a)pyrene, cadmium, lead, and nickel. The greatest exceedances of a screening level were due to lead and nickel. Arsenic was only slightly exceeded (maximum of 13 mg/kg compared to a screening level of 12 mg/kg).

Table 12 shows those chemicals which exceed at least one of the updated groundwater screening levels. Based on the Phase II data, only benzene exceeded a groundwater screening level, and this was based on drinking water exposure.

In summary, using updated screening levels that address a wide range of relevant potential receptors and exposure pathways, 19 chemicals (18 in soil and 1 in groundwater) detected in the Phase II exceed at least one screening level. Of particular importance are lead and nickel due to the significant exceedances of these two chemicals.

### CLOSING

Thank you for this opportunity to provide you with our services. Please don't hesitate to call or email should you have any questions or comments regarding this report.

Sincerely,



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### REFERENCES

BBL. 2006. Revised Risk Management Plan. Former Petroleum Terminals and Related Pipelines Located at Pier 64 and the Vicinity, City and County of San Francisco, California.

Bradford, G.R., Chang, A.C., Page, A.L., Bakhtar, D., Frampton, J.A. and H. Wright. 1996. Background Concentrations of Trace and Major Elements in California Soils. University of California-Riverside.

CalEPA. 2005. Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties. Sacramento.

CalEPA. 2015. MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants. August 10, 2015. Accessed via the Internet at: [www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/MCLsandPHGs.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/MCLsandPHGs.shtml)

DTSC. 2011. User's Guide to LeadSpread 8 and Recommendations for Evaluation of Lead Exposures in Adults.

DTSC. 2013. Preliminary Endangerment Assessment Guidance Manual. Sacramento.

DTSC. 2014. Human Health Risk Assessment (HHRA) Note. HERO HHRA Note Number 1: Recommended DTSC Default Exposure Factors for Use in Risk Assessment at California Hazardous Waste Sites and Permitted Facilities. Issue Date: September 30, 2014. Sacramento.

DTSC. 2015. Human Health Risk Assessment (HHRA) Note. HERO HHRA Note Number 3: DTSC-Modified Screening Levels (DTSC-SLs). Release Date: May, 2015. Sacramento.

ENVIRON. 1999. Risk Management Plan. Mission Bay Area. San Francisco, California. Emeryville.

LTR. 2015. Phase II Environmental Site Assessment. Golden State Warriors Arena, Blocks 29-32, Mission Bay, San Francisco, California. San Francisco.

OEHHA. 2009. Revised California Human Health Screening Levels for Lead. Sacramento.

SFBRWQCB. 2013. User's Guide: Derivation and Application of Environmental Screening Levels. Oakland.

USEPA. 2001. Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Accessed via the Internet at: [www.epa.gov/region4/superfund/programs/riskassess/ecolbul.html](http://www.epa.gov/region4/superfund/programs/riskassess/ecolbul.html)

USEPA. 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24. Washington, D.C.

USEPA. 2005a. Ecological Soil Screening Levels for Antimony. Interim Final. OSWER Directive 9285.7-61. Washington, D.C.

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USEPA. 2005b. Ecological Soil Screening Levels for Arsenic. Interim Final. OSWER Directive 9285.7-62. Washington, D.C.

USEPA. 2005c. Ecological Soil Screening Levels for Barium. Interim Final. OSWER Directive 9285.7-63. Washington, D.C.

USEPA. 2005d. Ecological Soil Screening Levels for Beryllium. Interim Final. OSWER Directive 9285.7-64. Washington, D.C.

USEPA. 2005e. Ecological Soil Screening Levels for Cadmium. Interim Final. OSWER Directive 9285.7-65. Washington, D.C.

USEPA. 2005f. Ecological Soil Screening Levels for Chromium. Interim Final. OSWER Directive 9285.7-66. Washington, D.C.

USEPA. 2005g. Ecological Soil Screening Levels for Cobalt. Interim Final. OSWER Directive 9285.7-67. Washington, D.C.

USEPA. 2005h. Ecological Soil Screening Levels for Lead. Interim Final. OSWER Directive 9285.7-70. Washington, D.C.

USEPA. 2005i. Ecological Soil Screening Levels for Vanadium. Interim Final. OSWER Directive 9285.7-75. Washington, D.C.

USEPA. 2006. Ecological Soil Screening Levels for Silver. Interim Final. OSWER Directive 9285.7-77. Washington, D.C.

USEPA. 2007a. Ecological Soil Screening Levels for Copper. Interim Final. OSWER Directive 9285.7-68. Washington, D.C.

USEPA. 2007b. Ecological Soil Screening Levels for Nickel. Interim Final. OSWER Directive 9285.7-76. Washington, D.C.

USEPA. 2007c. Ecological Soil Screening Levels for Selenium. Interim Final. OSWER Directive 9285.7-72. Washington, D.C.

USEPA. 2007d. Ecological Soil Screening Levels for Zinc. Interim Final. OSWER Directive 9285.7-73. Washington, D.C.

USEPA. 2015. Regional Screening Table. June 2015 (Accessed via the Internet at: [http://www.epa.gov/reg3hwm/risk/human/rb-concentration\\_table/](http://www.epa.gov/reg3hwm/risk/human/rb-concentration_table/))

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Table 1

Updated and Previous Health Risk-Based Soil Screening Levels for the Off-Site Resident and On-Site Commercial Worker  
Non-Volatile Chemicals

Chemical	Screening Level (mg/kg)			
	Off-Site (Nearby) Resident Updated <sup>1</sup>	Off-Site (Nearby) Resident Previous <sup>2</sup>	On-Site Commercial Worker Updated <sup>1</sup>	On-Site Commercial Worker Previous <sup>2</sup>
<i>Polycyclic Aromatic Hydrocarbons</i>				
Acenaphthene	NA	1,880,000	45,000	69,000
Acenaphthylene	NA	1,250,000	NA	46,000
Anthracene	NA	9,390,000	230,000	347,000
Benzo(a)anthracene	41	3,448	2.9	27
Benzo(g,h,i)perylene	NA	1,250,000	NA	46,000
Benzo(a)pyrene	1,300	345	0.29	2.7
Benzo(b)fluoranthene	13,000	3,448	2.9	27
Benzo(k)fluoranthene <sup>3</sup>	34,700	3,448	1.3	27
Chrysene <sup>4</sup>	1,680	34,000	13	272
Dibenz(a,h)anthracene	1,100	328	0.29	7.9
Fluoranthene	NA	1,250,000	30,000	46,000
Fluorene	NA	1,250,000	30,000	46,000
Indeno(1,2,3-cd)pyrene	13,000	3,448	2.9	27
2-Methylnaphthalene	NA	1,250,000	3,000	46,000
Naphthalene	3.8	1,250,000	17	46,000
Phenanthrene	NA	9,390,000	NA	347,000
Pyrene	NA	939,000	23,000	35,000
<i>Polychlorinated Biphenyls (as Aroclor 1254)</i>				
	4.1	NA	0.97	NA
<i>Petroleum Hydrocarbons<sup>4</sup></i>				
TPH-Gasoline	NA	1,720,000	500	74,000
TPH-Diesel	NA	16,000,000	110	686,000
TPH-Motor Oil	NA	126,000,000	500	5,420,000
<i>Metals</i>				
Antimony (as trioxide)	280,000	12,514	1,200,000	764
Arsenic <sup>5</sup>	1,160	112	12	29
Barium	710,000	4,380	220,000	12,949
Beryllium <sup>1</sup>	1,590	160	21	12
Cadmium <sup>1</sup>	909	90	5.7	191
Chromium (as trivalent) <sup>3</sup>	NA	31,285,714	270,000	1,910,423
Chromium (as hexavalent)	16	2.6	6.3	5.4
Cobalt	420	9,073	350	23,640
Copper	NA	1,157,571	47,000	70,686
Lead <sup>5</sup>	320	10,748	320	4,203
Mercury <sup>3</sup> (as elemental)	0.96	2,691	3.9	164
Molybdenum	NA	156,429	5,800	9,552
Nickel (as soluble salts)	14,700	1,478	1,500	3,145
Selenium	28,000,000	156,429	5,800	9,552
Silver	NA	156,429	5,800	9,552
Thallium (as soluble salts)	NA	2,503	12	153
Vanadium <sup>1</sup>	142,000	219,000	1,500	13,373
Zinc	NA	9,385,714	350,000	573,127

Notes:

<sup>1</sup>All values obtained from the USEPA Regional Screening Levels (USEPA, 2015) unless otherwise noted. Values for off-site resident reflect inhalation exposure only. Values for on-site commercial worker reflect exposure from soil ingestion, inhalation and dermal contact.

<sup>2</sup>Values obtained from ENVIRON (1999).

<sup>3</sup>Values obtained from DTSC (2015).

<sup>4</sup>Values are Environmental Screening Levels (ESLs) obtained from SFBWQCB (2013).

<sup>5</sup>See text.

NA = Not available.

Yellow highlight indicates that the updated screening level is lower (more stringent) than the corresponding ENVIRON (1999) screening level.



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Table 2

Updated and Previous Health Risk-Based Soil Screening Levels for the Off-Site Resident and On-Site Commercial Worker  
Volatile Chemicals

Chemical	Screening Level (mg/kg)			
	Off-Site (Nearby) Resident Updated <sup>1</sup>	Off-Site (Nearby) Resident Previous <sup>2</sup>	On-Site Commercial Worker Updated <sup>1</sup>	On-Site Commercial Worker Previous <sup>2</sup>
Acetone	440,000	71,000	670,000	330,000
Benzene <sup>3</sup>	0.35	63	1.4	77
2-Butanone (Methyl ethyl ketone)	64,000	180,000	190,000	800,000
Carbon disulfide	850	11,000	3,500	54,000
Chlorobenzene	340	1,100	1,300	5,600
Chloroform	0.32	340	1.4	410
1,1-Dichloroethane <sup>3</sup>	3.7	1,100	16	1,400
1,2-Dichloroethylene (cis) <sup>3</sup>	21	540	86	2,700
1,2-Dichloroethylene (trans) <sup>3</sup>	212	1,100	860	5,500
Ethylbenzene	6.4	16,000	25	78,000
2-Hexanone (Methyl butyl ketone)	420	370	1,300	1,800
Methylene chloride <sup>3</sup>	6.2	1,900	24	2,300
Styrene	9,700	19,000	35,000	81,000
Tetrachloroethene <sup>3</sup>	1.1	300	2.7	360
Toluene <sup>3</sup>	1,360	6,200	5,400	31,000
1,1,1-Trichloroethane <sup>3</sup>	1,740	15,000	7,300	77,000
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	1,600,000	NA	8,000,000
Trichloroethylene	1.1	630	6.0	760
Trichlorofluoromethane	760	16,000	3,100	80,000
Vinyl chloride <sup>3</sup>	0.03	23	0.15	28
Xylenes	570	110,000	2,400	550,000

Notes:

<sup>1</sup>All values obtained from the USEPA Regional Screening Levels (USEPA, 2015) unless otherwise indicated. Values for off-site resident reflect inhalation exposure only. Values for on-site commercial worker reflect exposure from soil ingestion, inhalation and dermal contact.

<sup>2</sup>Values obtained from ENVIRON (1999).

<sup>3</sup>Updated values obtained from DTSC (2015).

Yellow highlight indicates that the updated screening level is lower (more stringent) than the corresponding ENVIRON (1999) screening level.

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Table 3

Exposure Parameters Used to Calculate Soil Screening Levels for Construction Workers

Exposure Parameter	Value
Body weight (kg)	80
Exposure duration (years)	1
Averaging time (days)	
Non-carcinogenic chemicals	365
Carcinogenic chemicals	25,550
Exposure frequency (days/year)	250
Soil ingestion rate (mg/day)	330
Particulate emission factor (m <sup>3</sup> /kg)	1.00E+06
Skin surface area (cm <sup>2</sup> )	6,032
Soil adherence factor (mg/cm <sup>2</sup> )	0.8

Source: DTSC (2014).



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Table 4  
Soil Screening Levels for the On-Site Construction Worker  
Non-Volatile Chemicals

Chemical	Non-Cancer Toxicity Criteria <sup>1</sup>		Cancer Toxicity Criteria <sup>1</sup>		ABS <sub>so</sub> (unitless)	ABS <sub>u</sub> (unitless)	Non-Cancer Screening Level (mg/kg)	Cancer Screening Level (mg/kg)	Final (Lowest) Screening Level (mg/kg)
	RfD <sub>a</sub> (mg/kg-day)	RfC (mg/m <sup>3</sup> )	CSF <sub>a</sub> (mg/kg-day) <sup>-1</sup>	IUR (µg/m <sup>3</sup> ) <sup>-1</sup>					
Polycyclic Aromatic Hydrocarbons									
Acenaphthene	6.0E-02	NA	NA	NA	1	0.13	7.3E+03	NA	7.3E+03
Acenaphthylene	NA	NA	NA	NA	1	0.13	NA	NA	NA
Anthracene	3.0E-01	NA	NA	NA	1	0.13	3.7E+04	NA	3.7E+04
Benzo(a)anthracene	NA	NA	7.3E-01	1.1E-04	1	0.13	NA	1.2E+01	1.2E+01
Benzo(a,h)perylene	NA	NA	NA	NA	1	0.13	NA	NA	NA
Benzo(a)pyrene	NA	NA	7.3E+00	1.1E-03	1	0.13	NA	1.2E+00	1.2E+00
Benzo(b)fluoranthene	NA	NA	7.3E-01	1.1E-04	1	0.13	NA	1.2E+01	1.2E+01
Benzo(k)fluoranthene <sup>2</sup>	NA	NA	1.2E+00	1.1E-04	1	0.13	NA	7.1E+00	7.1E+00
Chrysene <sup>2</sup>	NA	NA	1.2E-01	1.1E-05	1	0.13	NA	7.1E+01	7.1E+01
Dibenz(a,h)anthracene	NA	NA	7.3E+00	1.2E-03	1	0.13	NA	1.2E+00	1.2E+00
Fluoranthene	4.0E-02	NA	NA	NA	1	0.13	4.9E+03	NA	4.9E+03
Fluorene	4.0E-02	NA	NA	NA	1	0.13	4.9E+03	NA	4.9E+03
Indeno(1,2,3-cd)pyrene	NA	NA	7.3E-01	1.1E-04	1	0.13	NA	1.2E+01	1.2E+01
2-Methylnaphthalene	4.0E-03	NA	NA	NA	1	0.13	4.9E+02	NA	4.9E+02
Naphthalene	2.0E-02	3.0E-03	NA	3.4E-05	1	0.13	2.1E+03	9.0E+06	2.1E+03
Phenanthrene	NA	NA	NA	NA	1	0.13	NA	NA	NA
Pyrene	3.0E-02	NA	NA	NA	1	0.13	3.7E+03	NA	3.7E+03
Polychlorinated Biphenyls (as Aroclor 1254)									
	2.0E-05	NA	2.00E+00	5.70E-04	1	0.14	2.3E+00	4.1E+00	2.3E+00
Metals									
Antimony (as trioxide)	4.0E-04	2.0E-04	NC	NC	0.15	0.01	6.6E+01	NC	6.6E+01
Arsenic <sup>3</sup>									1.2E+01
Barium	2.0E-01	5.0E-04	NC	NC	0.07	0.01	2.0E+03	NC	2.0E+03
Beryllium <sup>2</sup>	2.0E-04	7.0E-06	NC	2.4E-03	0.007	0.01	2.9E+00	1.3E+05	2.9E+00
Cadmium <sup>2</sup>	6.3E-06	1.0E-05	NC	4.2E-03	0.025	0.001	1.4E+00	7.3E-04	1.4E+00
Chromium (trivalent) <sup>2</sup>	1.5E+00	NA	NC	NC	0.013	0.01	4.3E+04	NC	4.3E+04
Chromium (hexavalent) <sup>2</sup>	3.0E-03	1.0E-04	5.0E-01	1.5E-01	0.025	0.01	1.1E+02	4.8E+01	4.8E+01
Cobalt	3.0E-04	NC	NC	NC	1.00	0.01	2.0E+01	3.4E+04	2.0E+01
Copper	4.0E-02	NA	NC	NC	1.00	0.01	1.2E+04	NC	1.2E+04
Lead <sup>3</sup>									3.2E+02
Mercury <sup>2</sup> (as elemental)	1.6E-04	3.0E-05	NC	NC	1.00	0.01	3.6E+01	NC	3.6E+01
Molybdenum	5.0E-03	NA	NC	NC	1.00	0.01	1.5E+03	NC	1.5E+03
Nickel (as soluble salts) <sup>2</sup>	1.1E-02	1.4E-05	NC	2.6E-04	0.04	0.01	5.7E+01	1.2E+06	5.7E+01
Selenium	5.0E-03	2.0E-02	NC	NC	1.00	0.01	1.5E+03	NC	1.5E+03
Silver	5.0E-03	NA	NC	NC	0.04	0.01	3.8E+02	NC	3.8E+02
Thallium (as soluble salts)	1.0E-05	NA	NC	NC	1.00	0.01	3.1E+00	NC	3.1E+00
Vanadium <sup>2</sup>	5.0E-03	1.0E-04	NC	NC	0.03	0.01	1.7E+02	NC	1.7E+02
Zinc	3.0E-01	NA	NC	NC	1.00	0.01	9.3E+04	NC	9.3E+04

Notes:  
<sup>1</sup>Toxicity criteria obtained from DTSC (2015) first and USEPA (2015) if not available from DTSC (2015).  
<sup>2</sup>Toxicity criteria obtained from DTSC (2015).  
<sup>3</sup>See text.  
RfD<sub>a</sub> = Reference Dose for ingestion exposure, RfC = Reference Concentration for inhalation exposure, CSF<sub>a</sub> = Cancer Slope Factor for ingestion exposure to carcinogens, IUR = Inhalation Unit Risk for inhalation exposure to carcinogens  
ABS<sub>so</sub> = Gastrointestinal absorption efficiency. Obtained from USEPA (2015).  
ABS<sub>u</sub> = Dermal absorption efficiency. Obtained from USEPA (2015) (PAHs) and DTSC (2013) (metals).  
NC = Not carcinogenic.  
NA = Not available.

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Table 5  
Soil Screening Levels for the On-Site Construction Worker  
Volatile Chemicals

Chemical	Non-Cancer Toxicity Criteria <sup>1</sup>		Cancer Toxicity Criteria <sup>1</sup>		Volatilization Factor <sup>2</sup> (m <sup>3</sup> /kg)	Non-Cancer Screening Level (mg/kg)	Cancer Screening Level (mg/kg)	Final (Lowest) Screening Level (mg/kg)
	RfD <sub>a</sub> (mg/kg-day)	RfC (mg/m <sup>3</sup> )	CSF <sub>a</sub> (mg/kg-day) <sup>-1</sup>	IUR (μg/m <sup>3</sup> ) <sup>-1</sup>				
Acetone	9.0E-01	3.1E+01	NC	NC	1.4E+04	2.7E+05	NC	2.7E+05
Benzene <sup>3</sup>	4.0E-03	3.0E-03	1.0E-01	2.9E-05	3.5E+03	4.5E+01	2.5E+02	4.5E+01
2-Butanone (Methyl ethyl ketone)	6.0E-01	5.0E+00	NC	NC	1.2E+04	1.2E+05	NC	1.2E+05
Carbon disulfide	1.0E-01	7.0E-01	NC	NC	1.2E+03	3.3E+03	NC	3.3E+03
Chlorobenzene	2.0E-02	5.0E-02	NC	NC	6.5E+03	1.2E+03	NC	1.2E+03
Chloroform	1.0E-02	9.8E-02	3.1E-02	2.3E-05	2.6E+03	8.5E+02	7.8E+02	7.8E+02
1,1-Dichloroethane <sup>2</sup>	2.0E-01	8.0E-01	5.7E-03	1.6E-06	2.1E+03	6.7E+03	4.3E+03	4.3E+03
1,2-Dichloroethylene (cis) <sup>2</sup>	2.0E-03	8.0E-03	NC	NC	2.5E+03	7.8E+01	NC	7.8E+01
1,2-Dichloroethylene (trans) <sup>2</sup>	2.0E-02	8.0E-02	NC	NC	1.7E+03	5.5E+02	NC	5.5E+02
Ethylbenzene	1.0E-01	1.0E+00	1.1E-02	2.5E-06	5.7E+03	1.5E+04	2.2E+03	2.2E+03
2-Hexanone (Methyl butyl ketone)	5.0E-03	3.0E-02	NC	NC	NA	NA	NA	NA
Methylene chloride <sup>2</sup>	6.0E-03	4.0E-01	1.4E-02	1.0E-06	2.2E+03	1.4E+03	1.8E+03	1.4E+03
Styrene	2.0E-01	1.0E+00	NC	NC	9.4E+03	2.6E+04	NC	2.6E+04
Tetrachloroethene <sup>2</sup>	6.0E-03	3.5E-02	5.4E-01	5.9E-06	2.4E+03	3.1E+02	4.6E+01	4.6E+01
Toluene <sup>2</sup>	8.0E-02	3.0E-01	NC	NC	4.3E+03	4.7E+03	NC	4.7E+03
1,1,1-Trichloroethane <sup>2</sup>	2.0E+00	1.0E+00	NC	NC	1.7E+03	7.4E+03	NC	7.4E+03
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	5.0E-04	2.0E-03	4.6E-02	4.1E-06	2.2E+03	1.7E+01	5.4E+02	1.7E+01
Trichlorofluoromethane	3.0E-01	7.0E-01	NC	NC	1.0E+03	3.0E+03	NC	3.0E+03
Vinyl chloride <sup>2</sup>	3.0E-03	1.0E-01	2.7E-01	7.8E-05	9.6E+02	3.0E+02	9.0E+01	9.0E+01
Xylenes	2.0E-01	1.0E-01	NC	NC	6.5E+03	2.7E+03	NC	2.7E+03

Notes:  
<sup>1</sup>Toxicity criteria obtained from DTSC (2015) first and USEPA (2015) if not available from DTSC (2015).  
<sup>2</sup>Toxicity criteria obtained from DTSC (2015).  
<sup>3</sup>Volatilization factors obtained from USEPA (2015).  
RfD<sub>a</sub> = Reference Dose for ingestion exposure, RfC = Reference Concentration for inhalation exposure, CSF<sub>a</sub> = Cancer Slope Factor for ingestion exposure to carcinogens, IUR = Inhalation Unit Risk for inhalation exposure to carcinogens  
NC = Not carcinogenic.  
NA = Not available.



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Table 6

Ecorisk-Based Soil Screening Levels (Protection of Terrestrial Wildlife)  
Non-Volatile Chemicals

Chemical	Soil Screening Level (mg/kg)	Reference
<i>Polycyclic Aromatic Hydrocarbons</i>		
Acenaphthene	20	USEPA (2001)
Acenaphthylene	NA	
Anthracene	0.1	USEPA (2001)
Benz(a)anthracene	NA	
Benzo(g,h,i)perylene	NA	
Benzo(a)pyrene	0.1	USEPA (2001)
Benzo(b)fluoranthene	NA	
Benzo(k)fluoranthene	NA	
Chrysene	NA	
Dibenz(a,h)anthracene	NA	
Fluoranthene	0.1	USEPA (2001)
Fluorene	NA	
Indeno(1,2,3-cd)pyrene	NA	
2-Methylnaphthalene	NA	
Naphthalene	0.1	USEPA (2001)
Phenanthrene	0.1	USEPA (2001)
Pyrene	0.1	USEPA (2001)
<i>Metals</i>		
Antimony	0.27	USEPA (2005a)
Arsenic	43	USEPA (2005b)
Barium	2000	USEPA (2005c)
Beryllium	21	USEPA (2005d)
Cadmium	0.36	USEPA (2005e)
Chromium (trivalent)	26	USEPA (2005f)
Chromium (hexavalent)	130	USEPA (2005f)
Cobalt	120	USEPA (2005g)
Copper	28	USEPA(2007a)
Lead	11	USEPA (2005h)
Mercury	NA	
Molybdenum	NA	
Nickel	130	USEPA (2007b)
Selenium	0.63	USEPA (2007c)
Silver	4.2	USEPA (2006)
Thallium	NA	
Vanadium	7.8	USEPA (2005i)
Zinc	46	USEPA (2007d)
<i>Polychlorinated Biphenyls (as total)</i>		
	0.02	USEPA (2001)
<i>Petroleum Hydrocarbons</i>		
TPH-Gasoline	20	USEPA (2001)
TPH-Diesel	NA	
TPH-Motor Oil	NA	

Notes:  
NA = Not available.

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Table 7

Ecorisk-Based Soil Screening Levels (Protection of Terrestrial Wildlife)  
Volatile Chemicals

Chemical	Soil Screening Level (mg/kg)	Reference
Acetone	NA	
Benzene	0.05	USEPA (2001)
2-Butanone (Methyl ethyl ketone)	NA	
Carbon disulfide	NA	
Chlorobenzene	0.05	USEPA (2001)
Chloroform	0.001	USEPA (2001)
1,1-Dichloroethane	NA	
1,2-Dichloroethylene (cis)	NA	
1,2-Dichloroethylene (trans)	NA	
Ethylbenzene	0.05	USEPA (2001)
2-Hexanone (Methyl butyl ketone)	NA	
Methylene chloride	2	USEPA (2001)
Styrene	0.1	USEPA (2001)
Tetrachloroethene	0.01	USEPA (2001)
Toluene	0.05	USEPA (2001)
1,1,1-Trichloroethane	NA	
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	
Trichloroethylene	0.001	USEPA (2001)
Trichlorofluoromethane	NA	
Vinyl chloride	0.01	USEPA (2001)
Xylenes	0.05	USEPA (2001)

Notes:  
NA = Not available.



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Table 8

Human Health-Based Groundwater Screening Levels<sup>1</sup>

Chemical	Groundwater Screening Level (µg/L)	Basis	Reference
Acetone	14,000	USEPA RSL	USEPA (2015)
Benzene	1	CA MCL	CalEPA (2015)
2-Butanone (Methyl ethyl ketone)	5,600	USEPA RSL	USEPA (2015)
Carbon disulfide	810	USEPA RSL	USEPA (2015)
Chlorobenzene	70	CA MCL	CalEPA (2015)
Chloroform	0.22	USEPA RSL	USEPA (2015)
1,1-Dichloroethane	5	CA MCL	CalEPA (2015)
1,2-Dichloroethylene (cis)	6	CA MCL	CalEPA (2015)
1,2-Dichloroethylene (trans)	10	CA MCL	CalEPA (2015)
Ethylbenzene	300	CA MCL	CalEPA (2015)
2-Hexanone (Methyl butyl ketone)	38	USEPA RSL	USEPA (2015)
Methylene chloride	5	CA MCL	CalEPA (2015)
Styrene	100	CA MCL	CalEPA (2015)
Tetrachloroethene	5	CA MCL	CalEPA (2015)
Toluene	150	CA MCL	CalEPA (2015)
1,1,1-Trichloroethane	200	CA MCL	CalEPA (2015)
1,1,2-Trichloro-1,2,2-trifluoroethane	1,200	CA MCL	CalEPA (2015)
Trichloroethylene	5	CA MCL	CalEPA (2015)
Trichlorofluoromethane	150	CA MCL	CalEPA (2015)
Vinyl chloride	0.5	CA MCL	CalEPA (2015)
Xylenes	1,750	CA MCL	CalEPA (2015)

Notes:

<sup>1</sup>Based on drinking water ingestion.

USEPA RSL = USEPA Regional Screening Level for tapwater ingestion.

CA MCL = California Maximum Contaminant Level (drinking water standard).

NA = Not available.

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Table 9

Groundwater Screening Levels to Protect Indoor Workers from Vapor Intrusion

Chemical	Screening Level (µg/L) <sup>1</sup>
Acetone	NA
Benzene	270
2-Butanone (Methyl ethyl ketone)	200,000,000
Carbon disulfide	NA
Chlorobenzene	NA
Chloroform	1,700
1,1-Dichloroethane	NA
1,2-Dichloroethylene (cis)	26,000
1,2-Dichloroethylene (trans)	120,000
Ethylbenzene	3,100
2-Hexanone (Methyl butyl ketone)	NA
Methylene chloride	26,000
Styrene	NA
Tetrachloroethene	640
Toluene	NA
1,1,1-Trichloroethane	NA
1,1,2-Trichloro-1,2,2-trifluoroethane	NA
Trichloroethylene	1,300
Trichlorofluoromethane	NA
Vinyl chloride	18
Xylenes	NA

<sup>1</sup>Values are Environmental Screening Levels (ESLs) from SFBRWQCB (2013) for fine-coarse mix soil types, commercial/industrial land use.

NA = Not available.



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Table 10

Ecorisk-Based Groundwater Screening Levels (Protection of Aquatic Life)<sup>1</sup>

Chemical	Groundwater Screening Level <sup>2</sup> (µg/L)	
	Freshwater Habitat	Estuary Habitat
Acetone	1,500	1,500
Benzene	46	46
2-Butanone (Methyl ethyl ketone)	14,000	14,000
Carbon disulfide	NA	NA
Chlorobenzene	25	25
Chloroform	620	620
1,1-Dichloroethane	47	47
1,2-Dichloroethylene (cis)	590	590
1,2-Dichloroethylene (trans)	590	590
Ethylbenzene	290	43
2-Hexanone (Methyl butyl ketone)	NA	NA
Methylene chloride	2,200	2,200
Styrene	100	100
Tetrachloroethene	120	120
Toluene	130	130
1,1,1-Trichloroethane	62	62
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA
Trichloroethylene	360	360
Trichlorofluoromethane	NA	NA
Vinyl chloride	780	780
Xylenes	100	100

Notes:

<sup>1</sup>Groundwater screening levels assume groundwater daylight in either freshwater or estuarine wetlands.

<sup>2</sup>Values shown are Environmental Screening Levels (ESLs) from SFRWQCB (2013).

NA = Not available.

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Table 11

Comparison of Updated Soil Screening Levels to Maximum Soil Concentrations Reported in the  
June 2015 Phase II Environmental Site Assessment

Chemical	Maximum Concentration at Any Soil Depth <sup>2</sup> (mg/kg)	Screening Level Exceeded <sup>1</sup>			
		Off-Site (Nearby) Resident	On-Site Commercial Worker	Construction Worker	Ecorisk (Terrestrial Wildlife)
<i>Polycyclic Aromatic Hydrocarbons</i>					
Anthracene	0.14				X (0.1)
Benzo(a)pyrene	2.1		X (0.29)	X (1.2)	X (0.1)
Fluoranthene	0.72				X (0.1)
Naphthalene	0.74				X (0.1)
Phenanthrene	0.39				X (0.1)
Pyrene	0.9				X (0.1)
<i>Metals</i>					
Antimony	4.1				X (0.27)
Arsenic	13		X (12)	X (12)	
Cadmium	1.7			X (1.4)	X (0.36)
Chromium (as trivalent) <sup>3</sup>	1,800				X (26)
Cobalt	93			X (20)	
Copper	110				X (28)
Lead	1,500			X (320)	X (11)
Nickel	2,400		X (1,500)	X (57)	X (130)
Vanadium	50				X (7.8)
Zinc	420				X (46)
<i>Petroleum Hydrocarbons</i>					
TPH-Diesel	1,300		X (110)		
TPH-Motor oil	1,800		X (500)		

<sup>1</sup>Screening level shown in parenthesis.

<sup>2</sup>See text.

<sup>3</sup>Assumed to be trivalent chromium.



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Table 12

Comparison of Updated Groundwater Screening Levels to Maximum Groundwater Concentrations Reported in the  
June 2015 Phase II Environmental Site Assessment

Chemical	Maximum Groundwater Concentration (µg/L)	Screening Level Exceeded <sup>1</sup>		
		Drinking Water Groundwater Screening Level	Vapor Intrusion - Commercial Worker	Ecorisk Screening Level (Protection of Aquatic Life)
Benzene	4.4	X (1)		

<sup>1</sup>Screening level shown in parenthesis.

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November 2, 2015

**SENT VIA EMAIL** ([warriors@sfgov.org](mailto:warriors@sfgov.org))

Tiffany Bohee  
c/o Brett Bollinger  
San Francisco Planning Department  
1650 Mission Street, Suite 400  
San Francisco, CA 94103

**RE: Comments on Environmental Review for Warriors Event Center and  
Mixed-Use Development at Mission Bay Blocks 29-32**

Dear Ms. Bohee:

This firm represents the Mission Bay Alliance (the “Alliance”) with respect to the Warriors Event Center Project (“Project”). These comments address the Final Subsequent Environmental Impact Report for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (“FSEIR”) as well as the Project itself.

### 1. Tiering

The FSEIR attempts to justify the City’s decision not to provide any analysis of about half of the topics normally addressed in an EIR. The FSEIR initially reviews the conditions under which tiering under CEQA Guidelines section 15152 is permissible. Under section 15151, subdivision (g), impacts must “have been examined at a sufficient level of detail in the prior [EIR] to enable those effects to be mitigated or avoided . . . .”

The FSEIR also points out that the 1990 and 1998 EIRs were program EIRs under CEQA Guidelines section 15168, and that reliance on program EIRs is permissible in certain circumstances. Significantly, the FSEIR claims that the current project is within the scope of the Mission Bay Plan that was previously analyzed. Comments by the Alliance and others establish that the Notice of Preparation (“NOP”)/Initial Study (“IS”) inappropriately scoped out impacts for which there was inadequate analysis in the previous documents.

The FSEIR claims that the current project is consistent with the Mission Bay South Plan and/or within the scope of the program EIRs certified for the Mission Bay area. Yet comments from the public establish that, contrary to the City’s assertions, the proposed arena and event center is inconsistent with the Mission Bay South Plan and

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inadequately analyzed in the prior EIRs. As such, this case is similar to *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1320-1321, where a proposed gravel operation was found not to be within the scope of the long-term plan, and that a tiered EIR was required.

The FSEIR also attempts to refute the applicability of the fair argument standard. This discussion overlooks the major differences between the project described in the 1998 FSEIR (evaluating effects of developing Mission Bay plan area as described in 1998) and the Warriors Event Center and Mixed Use Development now being proposed, make this a new project, precluding reliance on the 1990 and 1998 environmental analyses. (See *Sierra Club v. County of Sonoma, supra*, 6 Cal.App.4th at 1320-1321.) Under separate cover, the Alliance has submitted additional analysis explaining: (1) why the project is inconsistent with the Mission Bay South Plan and would require an amendment; and (2) alternatively, why a variance would be necessary to locate the project within the Mission Bay South Plan area.

The case of *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1113 did not address a situation such as this where tiering is attempted for a new project that is inconsistent with the previously analyzed project. Thus it cannot stand for the proposition that the analysis in the NOP/IS of impacts that were not addressed would be subject to the substantial evidence standard. The simple inclusion of the NOP/IS in the DSEIR does not address this issue.

Even if the substantial evidence standard applies, public comments on the DSEIR demonstrate there are changes in circumstances since the 1998 SEIR involving, and significant new information showing, new significant effects not previously identified in the 1998 SEIR and substantial increases in the severity of significant effects that were previously identified in the 1998 SEIR. For example, biological resources exist on the site now that were not present in 1990 or 1998; thus, destruction of these resources creates a new, potentially significant impact. Similarly, contaminated soils are now present on the site due to backfilling that were not there previously. Construction and operation of the project would expose receptors to levels that exceed those levels that are considered safe. Similarly, seismic safety standards are completely different than in 1990 or 1998; moreover, the use proposed is a public assembly use, which was also not contemplated in 1990 or 1998.

Thus, the FSEIR improperly tiers from the 1990 and 1998 EIRs with respect to several resource areas, as described in Alliance and other public comments. This error defeats the public disclosure requirements of CEQA and misleads the public. In particular, if the 1990 and 1998 EIRs had actually analyzed the currently proposed

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project, there would be no need for the reams of new analysis presented by the City on these topics, none of which are within the four corners of the FSEIR.

2. AB 900

Although the Project previously received certification from the Governor's office under AB 900, that law has very specific procedural requirements with which the City has failed to comply.

As previously noted, the City has failed to make the record of proceeding available online as required by Public Resources Code section 21186 ("Section 21186"). In response to clear evidence of the City's failure to post online all required documents as required by Section 21186, the City now takes the legal position in the FSEIR that the City is somehow allowed to create two administrative records – one that is posted online as required by Section 21186, and a more expansive record that satisfies the requirements of Public Resources Code section 21167.6, subdivision (e)(10). This interpretation is contrary to the plain language of the Section 21186, which requires the City to timely post online all documents that will comprise the administrative record ultimately certified by the City. Any contrary interpretation would be absurd in light of the accelerated litigation briefing schedule provided by AB 900. Accordingly, the City's actions to flout its duties under AB 900 affirmatively prejudices any potential CEQA petitioner, and represents an intentional misuse of AB 900.

As the City knows full well, a motion to augment the record as provided by AB 900 will not adequately mitigate that prejudice where, as here, the lead agency knowingly and intentionally creates two separate administrative records – one for posting online and a second for ultimate certification – specifically in order to frustrate any future legal challenges. The only effective remedy in this instance is for the City to recirculate the DSEIR along with all documents comprising the administrative record in compliance with AB 900, which the Alliance calls upon the City to do.

3. Greenhouse Gas Emissions

The Alliance, among others, commented that the DSEIR's analysis of greenhouse gas ("GHG") emissions relied on the Project's defective AB 900 analysis to conclude that the Project had net zero GHG emissions. The FSEIR's response to these comments falls well below its duty of good faith.

Rather than candidly acknowledge that the DSEIR relied upon the analytical methodology followed in the AB 900 certification, which was fatally flawed, the City

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now attempts to distance itself from that analysis with a misleading claim that public commenters were somehow “confuse[d]” about the relationship between the AB 900 analysis and the DSEIR’s analysis. (FSEIR, p. 13.14-5.) This response is nonsense. The public was not confused. To the contrary, public commenters correctly noted that the DSEIR expressly relied upon the AB 900 analysis to repeatedly represent that the Project would result in no net additional GHG emissions. To wit:

Construction activities would also result in temporary increases in GHG emissions. However, as described above under Regulatory Framework, the proposed project is a certified environmental leadership project under AB 900, and CARB has determined that the project would not result in any net additional GHG emissions due in part to the voluntary purchase of carbon credits by the project sponsor.

...

Thus, the Governor’s certification of the proposed project as a leadership project further supports the determination that the proposed project would not have a significant impact on global climate change due to GHG emissions. . . .

[A]nd because the proposed project would not result in any net additional GHG emissions, the project would not contribute to cumulative GHG emissions impacts.

(FSEIR, p. 14-123-125.)

Thus, there is no “confusion” by the public. And the City’s attempt to eliminate this clear analysis in the FSEIR is evidence of the City’s attempt to deceive the public regarding the Project’s true GHG emissions. The DSEIR unquestionably asserted that the Project’s GHG emissions had been quantified, and were a net zero. The assumptions and analysis supporting the DSEIR’s conclusion is demonstrably flawed. As a result, the City has a legal duty under CEQA to publicly acknowledge and correct that flawed analysis. The City has not yet done this, which renders the FSEIR misleading and therefore defective as an informational document.

Rather than correct the DSEIR’s defective GHG analysis, the City disingenuously sidesteps the issue by claiming that the FSEIR is now engaging in a purely “qualitative” analysis of GHG emissions rather than a “quantitative” analysis, as allowed by the CEQA Guidelines. (FSEIR, 13.14-5.) While it is true that the referenced CEQA Guidelines permit an agency to use a qualitative analysis for GHG emissions in certain instances, this same guideline also advises, “A lead agency should make a good-faith effort, based on the extent possible on scientific and factual data.” (CEQA Guidelines, § 15064.4,

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subd. (a).) Further a lead agency “shall have discretion to determine, in the context of a particular project, whether to” “use a model or methodology to quantify” GHG emissions or to “rely on a qualitative analysis.” (CEQA Guidelines, § 15064.4, subd. (a)(1), (2).)

As explained in the attached letter by SCS Engineers ample information was available that allows the City to quantify the Project’s GHG emissions, consistent with regulatory guidance. (See Exhibit 1, SCS Engineers Memorandum dated November 2, 2015.) Thus, while the City might ordinarily have discretion to utilize a qualitative analysis, that discretion is constrained because extensive quantitative data has already been prepared for the Project that was readily available to the City. (*Berkeley Keep Jets Over the Bay Committee v. Board of Board Commissioners of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1371 (*Berkeley Keep Jets*) (agency abused discretion by not quantifying project’s air emissions).) As in *Berkeley Keep Jets*, the City’s failure to accurately disclose the Project’s GHG emissions, and its evasive responses to comments asking for an adequate analysis, fail to satisfy its duty under CEQA.

One of the major defects in the DSEIR’s GHG analysis was to exclude emissions associated with operation of the two office towers by claiming that this Project component is somehow “vested.” Though, the DSEIR never acknowledges that fact. (FSEIR, p. 13.4-11-12.) The FSEIR openly “acknowledge[s]” this critical defect.

The City’s response fails the good faith standard. First, it is telling that the City never even attempts to explain in the FSEIR how the office uses are “vested” in response to comment directly challenging that assumption. Second, even if the towers were somehow “vested,” which they most surely are not, it is well established that a CEQA document must analyze the “whole of the action.” (CEQA Guidelines, § 15378.) Unrealized hypothetical “permitted” or “vested” rights are not excluded from analysis of a project’s impacts. (*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 320.) Third, excluding the towers’ GHG emissions establishes that the SEIR is premised on an inconsistent project description because the FSEIR analyzes the towers’ impacts in other resources areas. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 197.) As just one example, the new CEQA Guidelines Appendix F analysis expressly includes energy requirements from the two towers. (FSEIR, 13.23-10.) If the towers were “vested” and therefore excluded from analysis, the DSEIR also would not analyze the tower’s impacts in other resources areas either.

In conclusion, the FSEIR’s analysis of GHG is fundamentally flawed and fails as an informational document. The responses to comments are evasive and misleading, and fail to satisfy the City’s duty of good faith. Further, the information submitted by the

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cont.



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Alliance constitutes substantial evidence of a fair argument that the Project will have a significant adverse effect on GHG emissions.

### 4. Wind and Shadow

MBA previously commented that the DSEIR failed to analyze the Project's impact on on-site open space, which renders it defective as an informational document. (FSEIR, p. 13.15-1.) The FSEIR's response to this comment is not made in good faith, and instead is intended to conceal a significant impact (and thereby avoid recirculation) and improperly deferred mitigation.

The FSEIR first suggests that the open space provided on-site is somehow exempted from analysis because it consists of "publically [sic] accessible but private recreational areas." (FSEIR, p. 13.15-1.) This characterization, however, is inconsistent with the FSEIR's characterization of this open space as counting towards the Project's requirement to construct 0.46 acres of open space for each 1.0 acre of development area, which the FSEIR characterizes as "directly serv[ing] the project's demand for recreational facilities." (FSEIR, p. 13.16-3.) It is also inconsistent with the project applicant's own application materials, which provide:

#### DESIGN NARRATIVE: OPEN SPACE

The goals of the landscape design at Blocks 29-32 are to develop a unique place identity, *to connect new public spaces to the larger neighborhood, and to serve as a local and regional amenity. In addition to maximizing the quality of public space amenities for visitors and community members*, the landscape design also incorporates a diverse array of sustainability strategies.

...

Third Street Gardens and Plazas

...

This space is intended to both facilitate a porous connection between the street and the main plaza *and serve as an independent public space*.

...

Main Plaza

The main plaza is designed to accommodate seasonal programming and large events for the Bay Area community, as well as *function as a quality public space for the local neighborhood*. To accomplish this, the space is designed with maximum flexibility at its heart. Large-scale occupiable movable planters can be rearranged to accommodate various programs.

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Generous lawn panels and a few large specimen trees will create a neighborhood park atmosphere during non-event times.

(Golden State Warriors Even Center and Mixed-Use Development Combined Basic Concept/Schematic Design Submittal, Blocks 29-32: Open Space, Gatehouse & Parking and Loading, p. 5 (emphasis added).)

In other words, the FSEIR characterizes this open space as "private" to avoid a wind analysis, but "public" for purposes of dismissing impacts to recreational facilities. The FSEIR's characterization of this space as "private" is also inconsistent with the project applicant's repeated representations about this space. This type of shifting project description is misleading and thwarts informed decision-making. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 197.)

What is more, the FSEIR's attempt to narrow the scope of the required wind analysis by reference to Planning Code section 148 is misplaced. Indeed, if one were to simply apply the scope of that code section directly, it would not apply at all because the Project is being developed in a redevelopment area. Here, the 1998 Mitigation Monitoring and Reporting Program did not limit the application of a wind analysis to only those instances where Section 148 would apply on its own terms, but rather much more broadly:

Require a qualified wind consultant to review specific designs for buildings 100 feet or more in height for potential wind effects. The Redevelopment Agency would conduct wind review of high-rise structures above 100 ft. Wind tunnel testing would also be required unless, upon review by a qualified wind consultant, and with concurrence by the Agency, it is determined that the exposure, massing, and orientation of buildings are such that impacts, based on a 26-mile-per-hour hazard for a single hour of the year criterion, will not occur. The purpose of the wind tunnel studies is to determine design-specific impacts based on the above hazard criterion and to provide a basis for design modifications to mitigate these impacts. Projects within Mission Bay, including UCSF, would be required to meet this standard or to mitigate exceedances through building design.

(1998 EIR, p. VI.6., mitigation measure D.7.)

Thus, by its own terms this mitigation measure applies to "high-rise structures above 100 ft." within any land use designation, and the scope of the affected area to review is in no way limited to "public open space" rather than so-called "private open

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space.” Nor is there any explanation that the scope of affected area is to be limited by Section 148.

The FSEIR’s misrepresentation on this issue is important because the FSEIR acknowledges that the Project would “exceed the wind hazard criterion” at no less than “three test points on the project site,” but promptly dismisses the significance of those exceedances because “wind effects at these locations are not considered significant impacts on the environment.” (FSEIR, p. 13.15-3.) The FSEIR reaches this strained legal conclusion, however, in order to avoid the factual issue that the de facto mitigation offered for that significant impact is impermissibly deferred under CEQA.

In short, the FSEIR undertakes a tortured legal analysis in order to conceal from the public the Project’s significant wind impacts on public open spaces within the Project. The SEIR must be recirculated to disclose this significant impact.

**5. Recreation**

The Alliance previously commented that the DSEIR’s project description, including the routine influx of up to 18,000 people up to 225 times a year, refuted the DSEIR’s conclusory assertion that the Project’s demand for recreational facilities “would generally be consistent with that described in the Mission Bay FSEIR.” The FSEIR fails to provide a good faith response to this comment. Rather than actually cite any report or analysis, the FSEIR merely restates its prior unsubstantiated claim. (DSEIR, p. 13.16-2.) Thus, there is no evidence whatsoever supporting this conclusion.

In the absence of any meaningful analysis regarding the Project’s demand for recreational facilities, the FSEIR claims that the Project will not substantially degrade Bayfront Park in part because of “the inclusion of on-site publically accessible open space proposed by the project that would directly serve the project’s demand for recreational facilities.” (FSEIR, 13.16-3.) Yet this characterization of the Project’s “open space” is inconsistent with the FSEIR’s treatment of these areas in its wind analysis, which it characterizes as “publicly accessible but private recreational areas,” (FSEIR, 13.15-1.) The FSEIR’s inconsistent treatment of this important component of the Project thwarts informed decision-making and public participation.

The FSEIR also fails to respond in good faith to comments about hazardous materials exposure associated with construction and occupancy of Bayfront Park. The City first claims that Bayfront Park is somehow a separate CEQA project notwithstanding the fact that its existence is triggered by construction of the arena. (FSEIR, 13.16-4.) Setting aside the FSEIR’s attempted legal obfuscation, the FSEIR then conclusively

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asserts that all issues of hazardous materials are satisfied because a Risk Management Plan (“RMP”) has been approved for the area. (FSEIR, 13.16-5.) This response, however, ignores that the RMP itself is not sufficiently protective of human health because it is: (i) premised on outdated screening levels that are significantly higher than now utilized; (ii) does not address contaminated soil that was subsequently imported onto the Project site; and (iii) does not even address several contaminants that have been recently identified onsite at levels well above current screening levels.

In summary, the information submitted by the Alliance constitutes substantial evidence of a fair argument that the Project will have a significant adverse effect on recreational facilities. In the alternative, per CEQA section 21166 and CEQA Guidelines section 15162, the facts described above constitute a change in circumstances since the 1998 SEIR involving, and significant new information showing, a new significant effect not previously analyzed in the 1998 SEIR. Under either standard, the City must prepare and circulate for public comment an environmental impact report to review the Project’s impacts on recreational facilities.

**6. Geology and Soils**

According to the FSEIR, all the concerns raised by the public can be addressed in the future by application of regulatory requirements. Furthermore, the FSEIR explains that design detail can be developed after certification of an EIR. Taking the theory advanced in the FSEIR to its logical conclusion, it would appear unnecessary to analyze impacts related to Geology and Soils at all.<sup>1</sup> This begs the question of what the purpose of an EIR, which is to:

Identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.

(Pub. Resources Code, § 21002.1, subd. (a).) The implementing CEQA Guidelines then describe how an EIR should consider and discuss significant impacts of a project. (CEQA Guidelines, § 15162.) To assist in that process, the Office of Planning and

<sup>1</sup> Indeed, there have been efforts to alter CEQA so that there would be no need to analyze an impact at all if there was an applicable regulatory standard. This “standards-based” approach to CEQA “reform” was abandoned after one of its main champions, former Senator Michael Rubio, resigned from the Legislature to take a government-affairs job with Chevron in early 2013.

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Research has also provided a sample checklist in CEQA Guidelines Appendix G for Geology and Soils, among other impacts.

The 1998 SEIR did include a detailed analysis of then-existing conditions and then-existing standards as they applied to the land uses contemplated in the Mission Bay Plan area. As explained elsewhere, the 1998 SEIR did not analyze any development such as the Arena and Entertainment Center. Comments on the current DSEIR explain that the currently proposed use is completely different than the previously contemplated uses for the site. Additionally, standards regarding seismic safety and construction methodology have changed since 1998. Last, the actual conditions on the site have changed, as large quantities of contaminated soil were removed from the site, and 80,000 cubic yards of other (apparently also contaminated) materials were backfilled into the site from elsewhere in Mission Bay.

According to the City's interpretation of CEQA, all of these details can be addressed after certification of the EIR. This approach, however, skips over the analysis and mitigation process that is essential to the EIR process. In this case, that process occurred in 1990 and 1998, and as essentially accepted in the FSEIR, the applicable standards are very different now as compared to at that time. Relying on this outdated analysis, as updated by numerous documents prepared outside of the public review process and outside the current SFEIR fails to meet the informational purposes of CEQA. While tiering is permissible in certain circumstances, its use in these circumstances defeats the public information purposes of CEQA.

Though it did not specifically address the same tiering issues as are present here, the California Supreme Court's opinion in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 443 is instructive:

The audience to whom an EIR must communicate is not the reviewing court but the public and the government officials deciding on the project. That a party's briefs to the court may explain or supplement matters that are obscure or incomplete in the EIR, for example, is irrelevant, because the public and decision makers did not have the briefs available at the time the project was reviewed and approved. The question is therefore not whether the project's significant environmental effects can be clearly explained, but whether they were.

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Here, the analyses in the 1990 and 1998 are no longer pertinent. The City admits that none of the mitigation measures developed during that time even apply now. Subsequent brief descriptions in the IS/NOP also fail to characterize the full nature and extent of the seismic and other hazards that will result from construction of the Project. Now, the FSEIR includes yet additional analysis and information regarding how impacts related to Geology and Soils will be addressed later through regulatory processes alone. This review process does not clearly explain the effects of the Project to the public.<sup>2</sup>

In addition to this overarching flaw in the City's approach to analyzing impacts related to Geology and Soils, BSK Associates has also prepared a technical memorandum responding to several of the responses provided in the FSEIR concerning Geology and Soils and related Hydrological impacts from tsunami and sea level rise risks. (BSK Geology Report attached as Exhibit 2.) This additional information further demonstrates the need to prepare a stand-alone, publicly comprehensible analysis of these environmental impacts prior to making any decision about the Project.

In summary, the information submitted by the Alliance constitutes substantial evidence of a fair argument that the Project will have a significant adverse Geology and Soils impacts. In the alternative, per CEQA section 21166 and CEQA Guidelines section 15162, the facts described above constitute a change in circumstances since the 1998 SEIR involving, and significant new information showing, a new significant effect not previously analyzed in the 1998 SEIR. Under either standard, the City must prepare and circulate for public comment an environmental impact report to review the Project's impacts concerning geology and soils.

**7. Hazards and Hazardous Materials**

New information and/or changes in circumstances have occurred in the area of hazards and hazardous materials that require recirculation. Although the NOP/IS determined that no additional analysis was required of these issues in the DSEIR, changed circumstances and/or new information following the 1998 SEIR requires recirculation of the DEIR that includes adequate analysis and disclosure of the Project's potentially significant impacts with respect to hazards and hazardous materials.

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<sup>2</sup> This same deficiency applies to all of the resource areas for which there was no new analysis in the DSEIR.



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First, the DSEIR did not previously acknowledge the presence of asbestos on-site. Following release of the DSEIR, the Bay Area Air Quality Management District staff sampled the existing stockpiles on-site, which identified the presence of asbestos above regulatory limits. In response to this newfound asbestos in onsite soils, the applicant was required to prepare an asbestos dust monitoring plan in order to mitigate the significant public health risk. The new asbestos dust monitoring plan, dated October 9, 2015, was released to the public very recently. The newly-discovered presence of asbestos in soils onsite, not previously disclosed in the DSEIR, represents a new significant impact of the Project that requires recirculation.

Second, following release of the NOP/IS,<sup>3</sup> the applicant's consult prepared a Phase II report that identified significant additional contamination in soils onsite. The Phase II report shows that significant amounts of both previously existing and subsequently-imported hazardous waste remain on the site today. Backfill used in this area contained Class 1 and 2 hazardous materials that were not present before the excavation and partial removal of petroleum contaminated materials. These materials are not addressed in the 1998 RMP or 2006 Revised RMP. The FSEIR now acknowledges the existence of this contaminated backfill (FSEIR, 13.22-20), which was withheld from public disclosure in the NOP/IS and RDEIR.

The presence of newly-revealed contamination, viewed in isolation, represents new information and/or a changed circumstance requiring analysis and disclosure in a recirculated DSEIR. What is more, however, the Alliance retained an independent toxicologist to compare the results of the Phase II to the health screening levels in the 1998 RMP (and included in the 2006 RRMP) and current standards. The report prepared by Damian Applied Toxicology, LLC ("DAT"): (1) provides updated screening levels for the constituents at the site; (2) provides newly applicable screening levels that did not exist at the time of the 1998 EIR; (3) compares the new and old screening levels; and (4) compares the updated screening levels to the most recent site investigation data from the Project site. (See DAT Report, submitted to City on October 20, 2015.)

The DAT Report shows that the prior screening levels are completely outdated and do not protect public health. Using updated screening levels that address a wide range of relevant potential receptors and exposure pathways, the DAT Report concludes that 19 chemicals (18 in soil and 1 in groundwater) that were detected in the 2015 Phase II investigation at the site exceed at least one screening level. Thus, present contamination poses potentially significant hazards due to impacts to the shallow water table, risks to

<sup>3</sup> Hazards and Hazardous Materials is one of the subjects determined by the City to not warrant any analysis in the DSEIR.

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construction workers exposed to site soils, including backfill, risks to commercial workers at the planned development project, and risks from transport and disposal of this hazardous waste, to the extent it may be taken off site. These hazards are not addressed in the RMP/RRMP, and represent new significant impacts that require recirculation of the DSEIR.

The FSEIR mischaracterizes the record in an attempt to dismiss the significance of this newly-discovered contamination that is well above screening levels. First, the FSEIR suggests that it is contamination is not the result of subsequent activities at the Project site, stating, "The fill unit is . . . likely related to debris from the 1906 earthquake and resulting fire." (FSEIR, 13.22-21.) This statement is misleading because it conceals from the public the fact, recognized in both the applicant's Phase II report and the prior BSK report, that this material was deposited onto the Project site in approximately 2005 following excavation to remediate petroleum free-product found onsite. (Phase II report, p. 6; BSK Hazardous Materials Report dated July 22, 2015, p. 3.) Thus, available facts indicate that this contaminated soil was the result of activities that took place following the 1998 SEIR, not the 1906 earthquake.

The City also attempts to dismiss the significance of this contamination by asserting, "[T]he Phase II ESA determined that these concentrations are not considered a health concern to construction workers." (FSEIR, 13.22-21.) First, it is the function of a health risk assessment, and not a Phase II environmental site assessment, to make a determination of human health risk. Indeed, the completely inappropriate and inadequate nature of this conclusion in the Phase II is demonstrated with clarity in the DAT Report, discussed above, establishing that some of these contaminants are found in this fill material at up to ten times current screening levels. The City's misstatements on these critical human health issues fall well below its duty of good faith.

Finally, it is noted that the FSEIR repeatedly relies on compliance with the existing 1999 RMP under the San Francisco Bay Regional Water Quality Control Board ("RWQCB") oversight to ensure that impacts are less than significant. (FSEIR, 13.22-8 – 12.) In addition to establishing that the RMP itself is outdated and no longer adequate to protect human health, the attached correspondence establishes that oversight by the RWQCB is no longer adequate to effectively manage the site for the protection of construction workers and the public. (See Exhibit 3, letter to Dept. of Toxic Substances Control dated October 23, 2015.)

In summary, the information submitted by the Alliance constitutes substantial evidence of a fair argument that the Project will have a significant adverse effect regarding hazardous materials. In the alternative, per CEQA section 21166 and CEQA

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Guidelines section 15162, the facts described above constitute a change in circumstances since the 1998 SEIR involving, and significant new information showing, a new significant effect not previously analyzed in the 1998 SEIR. Under either standard, the City must prepare and circulate for public comment an environmental impact report to review the Project's impacts on hazardous materials.

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8. Urban Decay

The Alliance previously commented that the DSEIR ignored altogether the potentially significant urban decay impacts associated with eliminating NBA events at the existing Oracle Arena. Rather than prepare the required analysis in good faith and recirculate the RDEIR with this new information as required by CEQA, the City instead hired a consultant to prepare a *post hoc* rationalization for why no analysis was required in the first place. (See FSEIR, Appendix UD.) The Alliance has again retained its independent expert, Dr. Philip King, to review the FSEIR's analysis. Dr. King's report is attached hereto as Exhibit 4, and incorporated by reference. As explained by Dr. King, the FSEIR's analysis is riddled with methodological errors and does not actually respond to Dr. King's original analysis explaining why it is a potentially significant impact requiring analysis.

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9. Flawed and Misleading Approach to Analyzing and Mitigating the Project's Transportation Impacts

Buried within the "project description" are *de facto* mitigation measures for the Project's impacts on transportation. More specifically, these mitigation measures include both one-time capital improvements and ongoing expenditures as set forth in the Transportation Management Plan ("TMP") and Transit Service Plan ("TSP"). The City's strategy of conflating analysis of the Project's design features and mitigation measures violates CEQA. (See, e.g., *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645; see comments by Smith Engineering and Management dated November 2, 2015, pp. 2-3.) The prejudice associated with the City's strategy, other than simply obscuring the City's massive public subsidy for the Project, is that the EIR "fail[s] to consider whether other possible mitigation measures would be more effective." (*Id.* at 657.)

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The City also appears to rely on the incorporation of these plans into the project description in order to conceal from the public the City's failure to require full mitigation of the Project's impacts from the applicant. It is a bedrock principle of environmental law that development projects should mitigate their environmental impacts to the extent feasible. With respect to the Project's transportation impacts, however, the City deviates

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from this principle and instead adopts an odd, ad hoc "fair share" fee program to mitigate project-level impacts. (*Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173 ("*Anderson First*").) As a threshold matter, the SEIR never clearly discloses to the public that it essentially relies upon "fair share" payments from the Project in order to mitigate its project-level transportation impacts, which renders the SEIR defective as an informational document. Had the SEIR done so, it would have been apparent that the SEIR failed to disclose necessary information about this fair share program.

The payment of a "fair share" impact fees may constitute adequate mitigation if they "are part of a reasonable plan of actual mitigation that the relevant agency commits itself to implementing." (*Ibid.*) The *Anderson First* decision identified the information that is required in an EIR to establish the adequacy of a "fair share" mitigation measure, which includes the following:

- (i) An identification of the required improvement;
- (ii) An estimate of the cost of the required improvement;
- (iii) Sufficient information to determine how much the project would pay towards the improvement; and
- (iv) The fees must be part of a reasonable, enforceable plan or program sufficiently tied to the actual mitigation of the impacts at issue.

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(*Anderson First, supra*, 130 Cal.App.4th at 1188-89.)

The SEIR fails to provide this necessary information. While the SEIR mentions the TMP and TSP as addressing the Project's transportation impacts, the SEIR fails to identify the total costs of the improvements, the Project's allocated contribution, and the enforceable plan or program to contribute the Project's "fair share."

The SFMTA spreadsheet entitled "Capital and Operating Cost Estimates for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (The Project)," dated October 13, 2015, is instructive. (See Exhibit 5.) Considering only one-time "capital uses" and "capital uses allocation to project," (i.e., excluding ongoing costs to mitigate the Project's transportation impacts), it reveals that the total cost of these improvements is \$64,663,474, and the Project's fair share allocation is \$61,898,909. Of the amount "allocated" to the Project, however, only \$27,390,335 will actually be paid by the project applicant. Thus, the Project is contributing less than 50% of its allocated fair share contribution that is necessary to mitigate the Project's transportation impacts. To make matters worse, only \$19,434,536 is coming from an existing and enforceable



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impact fee program. The balance of the project applicant's contribution, approximately \$7,955,799, is the result of the City's voluntary redirection of General Fund revenues.

In other words, rather than simply require the project applicant to be responsible for the capital improvements needed to mitigate its project-level impacts, the City establishes some fair share fee program and then does not even require the applicant to pay the fair share fee – instead voluntarily giving up General Fund revenues that are intended to support other Citywide programs and services. By cloaking this deficient mitigation strategy as a design feature of the Project, the City never engages in a meaningful analysis of potentially feasible mitigation measures involving the project applicant actually mitigating these project-level impacts.

A similar deficiency applies to the Project's ongoing costs to mitigate its project-level transportation impacts. Total ongoing annual costs to mitigate the Project's transportation impacts are estimated at \$8,209,318 in FY18-18. Of this amount, \$2,773,110 in revenue is not paid from an enforceable impact fee program but rather re-directed from the General Fund. What more, significant additional City revenues, which are not even generated by the Project but rather "allocated" to the Project such as off-site parking and hotel tax, will be re-allocated to pay for the Project's ongoing mitigation for project-level transportation impacts. These reallocations of General Fund revenues cannot constitute an enforceable plan that is subject to future discretionary actions by the Board of Supervisors. Even the future adoption of the so-called Mission Bay Transportation Improvement Fund is inadequate to ensure future reallocations of General Fund revenues because the present Board of Supervisors cannot bind by mere ordinance the discretion of future Boards. (*McMahan v. City and County of San Francisco* (2005) 127 Cal.App.4th 1368.)

In short, the City is inexplicably failing to require the applicant to bear responsibility for fully mitigating its own project-level impacts. Rather, the City is setting up a flawed *de facto* fair share fee program to pay for these project-level mitigations, and redirecting revenues generated by the Project and elsewhere to cover the funding gap for these mitigation measures. This deficiency is nowhere disclosed to the public in the SEIR. The City may not rely on the preparation of various "plans" as a smokescreen to conceal from the public the Project's failure to mitigate its own project-level impacts and massive public subsidy needed to make up for that deficiency. The SEIR is misleading, and fails as an informational document with respect to mitigation for transportation impacts.

The City's action to mitigate the Project's transportation impacts is also an undisclosed public subsidy that triggers substantive and procedural mandates by the City

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before committing to such subsidy. (See Exhibit 6, report by Marin Economic Consulting dated November 2, 2015.) More specifically, these subsidies include committing to direct General Fund revenues to pay for light rail cars, construction of transportation improvements, public safety and traffic officers, etc., and "allocating" parking/hotel tax revenues from other properties to pay these expenses. California law requires the City to notice and hold a public hearing before committing to such subsidies. The City is also required to provide detailed information about the purpose, nature, extent and effect of such subsidies prior to commitment. The City has failed to comply with these substantive and procedural mandates prior to approving this public subsidy.

\* \* \*

Please feel free to contact my office with any questions.

Very truly yours,

**SOLURI MESERVE**  
A Law Corporation

By:   
Patrick M. Soluri

cc: Chris Kern (chris.kern@sfgov.org)  
Brett Bollinger (Brett.Bollinger@sfgov.org)

Attachments:

Exhibit 1: Memorandum from SCS Engineers dated November 2, 2015  
Exhibit 2: Geology Report from BSK Associates dated November 2, 2015  
Exhibit 3: Letter from Soluri Meserve to DTSC dated October 23, 2015  
Exhibit 4: Memorandum from Dr. Philip King dated November 2, 2015  
Exhibit 5: SMFTA spreadsheet entitled, "Capital and Operating Cost Estimates for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (The Project)," dated October 13, 2015  
Exhibit 6: Report from Marin Economic Consulting dated November 2, 2015

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## EXHIBIT 1

Environmental Consultants  
and Contractors

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### SCS ENGINEERS

November 2, 2015  
File No. 01215159.00

#### MEMORANDUM

TO: Osha Meserve, Soluri Meserve

FROM: Patrick S. Sullivan, SCS Engineers  
John Henkelman, SCS Engineers

SUBJECT: Response to Comments on Greenhouse Gas Analysis for Golden State Warriors Event Center

SCS Engineers (SCS) has reviewed the greenhouse gas (GHG) analysis and Responses to Comments prepared for the proposed Golden State Warriors (GSW) Event Center (Project). The GHG analysis was performed and included in the Draft Subsequent Environmental Impact Report (SEIR) to demonstrate that the GHG emissions would not be significant for purposes of the California Environmental Quality Act (CEQA). The analysis also included references to the analysis performed for Assembly Bill 900 (AB900) certification, including that it would result in "no net increase" in GHG emissions. SCS has performed many GHG analyses for purposes of permitting, mandatory reporting, verification, CEQA and other requirements. The resumes of Patrick Sullivan and John Henkelman are provided as an attachment.

The documents reviewed include the following:

- *Application for CEQA Streamlining: GHG Emissions Methodology and Documentation*, Environ 2015
- *Application for Environmental Leadership Development Project, Golden State Warriors, Event Center and Mixed-Use Development at Mission Bay Blocks 29-32*, Golden State Warriors 2015
- *ARB Staff Evaluation for Golden State Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32*, ARB Staff 2015
- *Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 Draft Subsequent EIR*, Office of Community Investment and Infrastructure, October 23, 2015

SCS does not agree with the conclusion that Project GHG emissions have been adequately addressed in the SEIR. The Responses to Comments dismiss criticism of the analysis performed for AB900 and indicate that the SEIR concludes that GHG emissions are not significant based on a qualitative analysis. SCS believes this level of analysis is inconsistent with existing guidance, that it fails to provide an accurate representation of the emissions from the project, and the inclusion of the AB900 analysis is misleading.

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Offices Nationwide





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## EXISTING GHG GUIDANCE

The SEIR is not consistent with guidance from regulatory agencies such as Bay Area Air Quality Management District (BAAQMD) or organizations such as the California Air Pollution Control Officers Association (CAPCOA).

The BAAQMD is the regulatory body for the San Francisco Air Basin (SFAB), which includes the Project location. The BAAQMD has issued CEQA guidelines in its *California Environmental Quality Act Air Quality Guidelines* (BAAQMD, May 2012) document (BAAQMD Guidance) that include guidance on the assessment of GHG. While the BAAQMD is no longer recommending the thresholds in that document, the BAAQMD has indicated that other elements of that guidance can be utilized by planning agencies. That 2012 BAAQMD Guidance recommends the quantification of GHG emissions from projects for purposes of CEQA and states that “Emissions should be estimated in terms of carbon dioxide equivalent.”

CAPCOA is an organization of air pollution control officers from all local air districts in California. It is not a regulatory agency, but it has provided guidance for agencies throughout the state on air pollution, air toxics, and climate change. CAPCOA issued *CEQA and Climate Change* (CAPCOA, January 2008). That guidance states that:

“...the defensibility of a CEQA analysis rests on the following concerns:

- Whether the public agency has sufficiently analyzed the environmental consequences to enable decision makers to make an intelligent decision;
- Whether the conclusion of the public agency are supported by substantial evidence in the administrative record; and
- Whether the agency has made a good faith effort to disclose significant effects.”

The SEIR fails to meet these criteria because it has not sufficiently analyzed the environmental consequences, provided evidence of the conclusion, or made a good faith effort to disclose significant effects. As SCS noted in a memorandum dated July 20, 2015, the AB900 analysis of the Project is fundamentally flawed and inconsistent with California GHG policies. The SEIR does not sufficiently analyze GHG impacts from the Project other than by referencing the flawed AB900 analysis. Without quantification or more robust analysis of the actual GHG emissions from the Project, the public agency does not have sufficient information to make a decision, and the agency has not made a good faith effort to disclose significant effects.

Both the BAAQMD and CAPCOA have proposed quantitative GHG emission thresholds for purposes of determining significance for purposes of CEQA. While neither threshold is binding, the SEIR should compare the GHG emissions from the Project to the BAAQMD and CAPCOA thresholds to enable the public and policy makers to gauge the significance of GHG emissions.

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[LC-GHG-1]  
cont.

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## GHG QUANTIFICATION

The SEIR has failed to quantify GHG emissions. If the Project is not relying on the AB900 analysis, as Response GHG-2 of the SEIR indicates, then no quantification of GHG emissions from the Project has been performed. Without quantification of the GHG emissions, the public agency cannot adequately determine whether how much GHG will be emitted by the Project relative to proposed significance thresholds, local GHG emissions, or other GHG sources.

As evidenced by the AB900 analysis, the tools to quantify GHG emissions exist. While the accounting methodology in the AB900 analysis is fundamentally flawed, the inventory methodology used in the analysis is generally appropriate for the quantification of GHG emissions from the Project. The BAAQMD Guidance lists several models that can be used by project proponents to quantify GHG emissions, including the Urban Emission Model (URBEMIS) and BAAQMD GHG Model (BGM). Voluntary registries such as The Climate Reserve (TCR) have also developed GHG quantification methodologies.

## MISLEADING USE OF AB900 ANALYSIS

Response GHG-2 of the SEIR indicates that the SEIR is not relying on the AB900 analysis to demonstrate that GHG emissions are not significant, yet the SEIR makes repeated references to the AB900 analysis to support claims that GHG emissions are not significant. The AB900 analysis and the SEIR GHG analysis “have separate and distinct requirements and purposes,” as stated on page 13.14-5. Thus, the AB900 analysis cannot and should not be relied upon by the SEIR as quantification of the GHG emissions from the Project. Nor should it be used to support conclusions for CEQA purposes unless it can be demonstrated that it is consistent with CEQA requirements for a GHG analysis. The SEIR has not provided evidence that the AB900 analysis can or should be used to support conclusions about the significance of GHG emissions from the Project. The AB900 analysis is fundamentally flawed for purposes of CEQA for reasons described in the July 20, 2015 Memorandum provided by SCS.

Impact C-GG-1 states that “As part of the AB900 application, the project sponsor has committed to purchase carbon credits from a qualified GHG emissions broker in an amount to offset all GHG emissions from project construction and operations.” This statement is misleading because it implies that the AB900 analysis is a sufficient analysis of the Project for CEQA purposes and that the Improvement Measure I-C-GG-1 provided consistent with the AB900 analysis is sufficient for CEQA purposes. The AB900 analysis uses inappropriate boundaries to analyze the GHG emissions and cannot be used for CEQA purposes. The SEIR appears to recognize the flaws of the AB900 analysis in suggesting it was not relied upon, but then it does just that – relies upon the AB900 analysis.

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[LC-GHG-1]  
cont.



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## CONCLUSIONS

The Response to Comments in the SEIR indicate that the AB900 analysis is not being relied upon for CEQA purposes to demonstrate that GHG emissions from the Project are less than significant. If the AB900 analysis is not being relied upon, the SEIR has provided no quantification of GHG emissions for CEQA purposes and has misleadingly referred to the AB900 analysis to support the conclusion that GHG emissions are not significant. For reasons stated in the July 20, 2015 memorandum from SCS, the AB900 analysis of GHG emissions from the Project is fundamentally flawed and cannot be relied upon for CEQA purposes of determining significance.

GHG analysis used to support the determination that the Project met the requirements of CEQA or AB900 is insufficient to demonstrate that the GHG emissions from the Project will be net zero or less than significant under CEQA for the following reasons:

- The SEIR fails to provide an appropriate quantification of GHG emissions for CEQA purposes. In the response to comments regarding the use of the AB900 analysis, the SEIR indicates that the AB900 analysis is not being used as the basis for evaluating GHG emissions from the Project.
- The AB900 analysis omits planned office towers from the GHG emission calculation, as specifically noted on SEIR Vol. 4, p.13.4-11. Because it omits these towers, the GHG quantification is inappropriate for use as a CEQA baseline.
- The GHG analysis makes unsupported assumptions about Oracle Arena, trip linkage, and energy use which artificially lower the expected GHG emissions from the Project and do not provide an accurate evaluation of the GHG emissions that can be expected to result from the Project.
- The GHG analysis does not require project monitoring and periodic GHG reporting to assure the accuracy of the projected emissions.
- The GHG offsets proposed as a mitigation measure are not required to be consistent with California GHG reduction goals and policies, could be used for other projects, and may not ever be required for the operational emissions.
- Without the accurate quantification of GHG emissions from the Project, the amount of necessary offsets cannot be determined.

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[LC-GHG-1]  
cont.

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## EXHIBIT 2





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Via U.S. Mail and Email (Osha Meserve osha@semlawyers.com)

November 2, 2015

BSK Project Number E09066015

Soluri Meserve  
1822 21st Street, Suite 202  
Sacramento, CA 95811

Subject: Review  
Responses to Comments (October 23, 2015)  
Event Center and Mixed-Use Development at Mission Bay Blocks 29-32  
Mission Bay Project  
San Francisco, California

Dear Ms. Meserve:

At the request of Soluri Meserve, BSK Associates (BSK) reviewed the following documents:

**Responses to Comments, Event Center and Mixed-Use Development at Mission Bay Blocks 29-32, Volume 5, Section 13.20, Geology and Soils, dated October 23, 2015 and Volume 5, Section 13.21.9, Tsunami Risks**

Our review was limited to Geology, Engineering Geology and Seismic related aspects of the subject documents. The following items #1 to #7 presents our comments based on a review of the Responses to Comments pages 13.20-1 to 13.20-26; and items #8 to #10 present our comments based on our review of pages 13.21.35 to 13.21.42.

1. Response GEO-1, page 13.20-10 states "The 2014 Langan Treadwell Rollo (LTR) Geotechnical Evaluation provides recommendations regarding foundation and building design in order to comply with applicable codes. These recommendations will be incorporated into the design of the event center and other buildings, including the sub-surface facilities and the designs will be submitted to the DBI for its approval." On page 11 of the 2014 LTR report included the following "The conclusions and recommendations presented herein are preliminary and should not be relied upon for design." Therefore, the 2014 LTR cannot be used for design. Design features which may be required for Geotechnical Engineering purposes, that have not been confirmed may be highly variable and may result in significant environmental impacts. For illustration a design that calls for a deep foundation on drilled piers/piles has dramatically different impacts than a design that uses soil densification or in-situ treatments.
2. Response GEO-1, page 13.20-12 states "Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead and live loads. Therefore, structures designed in accordance with the

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[LC-GEO-2]

Environmental, Geotechnical, Construction Services, Analytical Testing - An Employee-Owned Company

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San Francisco Building Code are designed to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage." This statement is not correct and does not apply to sites, such as Mission Bay Blocks 29-32, that are located on soft soils or liquefiable soils. Seismic response of structures located on soft or liquefiable soils is non-linear and requires a site specific seismic response analysis (See ASCE 7-10, Section 20.3.1).

3. Numerous responses throughout Section 13.20, presented local and state building code requirements as mitigation measures for various geologic hazards that are present at the site. This approach of utilizing design level mitigation that will be prepared at a later date, may be a valid method for a simple project located on stiff soils where changes in design have minor impact. The proposed structure is highly complex, with problematic subsurface conditions that will require significant ground modifications that could themselves have potentially significant impacts on the surrounding area. Based on the size and complexity of the structure, the impacts and cumulative impacts need to be determined during the CEQA process such that the impacts of the building methods can be fully evaluated. See #1 for a construction related example that may have variable environmental impacts.
4. GEO-2 page 13.20-18, states "Further, as discussed in more detail in Section 13.22, Hazards and Hazardous Materials, Response HAZ-3, San Francisco emergency response procedures and evacuation routes are addressed in Impact HZ-3 of the Initial Study (pp. 119 through 121). As summarized in that impact analysis, the City has a published Emergency Response Plan dated 2010 and prepared by the Department of Emergency Management subsequent to publication of the 1998 Mission Bay FSEIR as part of the City's Emergency Management Program." Our review of the reference provided, did not disclose any method or actions that the City or County could take or has taken to prevent geohazard impacts, such as liquefaction induced sand boils that may develop along the surface streets surrounding the project. Sand boils that may occur during an earthquake could result in significant settlements that would render the roads unusable for evacuation or emergency response. This issue has not been evaluated and considering that 18,000 people may be trying to evacuate from the area into unusable roads, this is a significant impact that has not been addressed. State and local building codes do not have provisions for evaluating and mitigating liquefaction hazards to may occur under roadways, therefore utilizing building codes during the design phase to address this issue would not be effective.
5. GEO-2 page 13.20-18, states "The required extent of removal and replacement with engineered fill would be determined on the basis of the site-specific geotechnical investigation discussed on p. 87 of the Initial Study and would be conducted in accordance with the Site Permit process described in Response GEO-1." See our response #3 above.
6. GEO-3 pages 13.20-20 to 13.20-21, See our response #3 above.
7. GEO-4 pages 13.20-21 to 13.20-23, See our response #3 above.

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[LC-GEO-2]  
cont.

BSK



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8. HYD-8 page 13.21-40, states "The Initial Study did not specifically identify the expected tsunami inundation elevation at the project site. However, subsequent to publication of the SEIR, a more detailed analysis of tsunami risks at the project site has been conducted to determine the maximum inundation elevation associated with a tsunami run-up of 5.9 feet (based on analysis of existing Bay Area tsunami studies). This detailed site-specific analysis indicates that the maximum inundation elevation for the tsunami hazard area in the project vicinity would be -0.3 feet SFD (11.2 feet NAVD88)". Our review of the referenced site-specific analysis<sup>1</sup> indicates that a site specific Tsunami Hazard Analysis was not performed for the project site. The run-up values presented in the ESA summary of Existing Tsunami Hazard Mapping data was based on a 2006 report that was performed for Marine Oil Terminals in San Francisco Bay. The 2006 report is appropriate for a regional analysis, but it is not a site-specific analysis for the project site. The Maximum Tsunami Inundation elevation of 11.2 feet presented in the August 18, 2015 ESA memorandum appears to over-reaching the intent and the accuracy of data obtained from an analysis performed for another site.
9. HYD-8 page 13.21-41 states "Regarding the consideration of sea level rise and extreme tides in estimates of tsunami risks, the detailed analysis described above determined the maximum inundation elevation by adding the maximum tsunami wave height of 5.9 feet to the mean high water (MHW) tidal datum of 5.29 feet NAVD88. The MHW is calculated as the average of all high water heights observed over the National Tidal Datum Epoch. This is consistent with the state mapping. To calculate tsunami inundation elevations associated with extreme high tides and sea level rise as suggested by the comments would be speculative". California Governor's Executive Order S-13-08, which was issued on November 14, 2008 set policy with respect to sea level rise such that sea level rise should be incorporated into inundation analysis for planning, and accounting for sea level rise is not only not speculative, but was used for the project's own 100-year storm analysis that incorporated sea level rise through 2100 (Impact HY-7 of the SEIR, pp. 5.9-41 through 5.9-44)
10. HYD-8 page 13.21-41 "The comment also suggests a different methodology should have been used to analyze tsunami risk. The commenter's disagreement over the methodology used in the SEIR is noted. Under the "substantial evidence" standard, such disagreement does not mean the methodology used in the SEIR is inadequate or that additional analysis is required." There does not appear to be disagreement that the use of the out-dated Tsunami Hazard analysis in the 1998 EIR is not appropriate for the current project. This is clearly evident with Lead Agency's submittal of the August 18, 2015 memorandum as a new "detailed site-specific analysis".

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[LC-HYD-2]

Our review was limited to the Geology, Engineering Geology and Seismic related aspects as they relate to the development as described in the reports made available for review.

<sup>1</sup> Environmental Science Associates. Summary of Existing Tsunami Hazard Mapping in the Vicinity of the Proposed Golden State Warriors Mission Bay Project and Refined Limits of Maximum Anticipated Hazard. August 18, 2015

BSK

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We appreciate the opportunity to be of service to Soluri Meserve and trust that this correspondence provides you with the information necessary at this time. Please contact us with questions regarding the review comments presented this letter.

Respectfully submitted,  
BSK Associates

  
Martin B. Cline, CEG  
Senior Engineering Geologist

  
Kurt Balasek  
Senior Hydrogeologist

BSK



O-MBA16S6

## **EXHIBIT 3**

O-MBA16S6



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1010 F Street, Suite 100 • Sacramento, CA 95814

October 23, 2015

**SENT BY U.S. MAIL & EMAIL (Karen.Toth@dtsc.ca.gov)**

Karen Toth  
Department of Toxic Substances Control  
700 Heinz Avenue, Suite 200  
Berkeley, 94710-2721

**RE: Mission Bay Development Contamination – Request for Immediate Oversight**

Dear Ms. Toth:

This letter is submitted on behalf of the Mission Bay Alliance<sup>1</sup> (“MBA”) regarding potential ongoing threat of exposure to Class I and Class II hazardous materials at the proposed Golden State Warriors Arena and Entertainment Center (“project”) located in Mission Bay, San Francisco.<sup>2</sup> The Final Environmental Impact Report was released today<sup>3</sup> and the project is currently scheduled for approval on November 3, 2015 by the Office of Community Investment and Infrastructure; ground disturbing activities could occur soon after that. As explained below, the San Francisco Regional Water Quality Control Board (“Board”) has failed to adequately manage the risks posed by the site. Thus, MBA respectfully requests that Department of Toxic Substances Control (“DTSC”) immediately take over the hazardous materials management at this site to protect human health and the environment.

### Jurisdictional Discussion

In 1997, the California EPA Site Designation Committee designated the Board as the administering agency for the site.<sup>4</sup> This site appears to be covered under the Board’s

<sup>1</sup> The Mission Bay Alliance is an organization dedicated to preserving the environment in the Mission Bay area of San Francisco with respect to the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (a.k.a. Warriors Arena and Entertainment Center).

<sup>2</sup> The subject area bounded by 16th Street, 3rd Street, Illinois Street and Terry A. Francois Boulevard, which are blocks 29-32 located in San Francisco, California; approximate Latitude/Longitude: 37.76797 N-122.38753 E.

<sup>3</sup> See <http://www.sf-planning.org/index.aspx?page=1828>.

<sup>4</sup> Cal EPA Site Designation Committee Resolution No. 97-10, June 26, 1997.



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Department of Toxic Substances Control  
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open case number 38S0044, Mission Bay Development Area for threats of Diesel, Gasoline, Heating Oil/Fuel Oil and Lead, which appears to overlap with and include a portion of open case number 38S004, Pier 64 Metals/Heavy Metals, Petroleum/Fuels/Oils, Polycyclic Aromatic Hydrocarbons (PAHs). Order number R2-2005-0028 was later rescinded for separate phase petroleum hydrocarbon products. Those cases and Orders have been used to attempt by the project proponent to describe a site as fully suitable for immediate development and construction without any further environmental analysis.

### Site Description

This site is currently a complex of pits, bare ground, parking lots, wetland features, and poorly covered soil stockpiles. Some of the stockpile covers have visible damage, with plants poking through them and large tears, exposing friable piles of materials, which appear to have been previously identified as contaminated by a variety of toxic and hazardous chemicals.

This site was previously used for “bulk fuel storage and distribution; railroad operations; a machine shop; boilerhouse; steel mill; well casing manufacturer; warehousing, shipping and receiving operations for a variety of products; fruit cannery, junk yards vehicle parking and maintenance facilities and a ready-mix concrete facility.” (Notice of Preparation/Initial Study “NOP/IS,” p. 115.)<sup>5</sup> Even the 1998 Supplemental Environmental Impact Report (“1998 SEIR”) acknowledged that the Project site could contain other contaminants and that insufficient surveys at that time had been performed to characterize the contamination and resulting risk. (1998 SEIR, pp. V.J.1 – 110.)<sup>6</sup> With respect to metals, for example, the 1998 SEIR stated, “All 17 metals that were included in the list of analytes tested . . . were detected in varying concentrations in soil throughout Mission Bay South.” (1998 SEIR, p. V.J.36.) The same was true for asbestos and creosote as well. (1998 SEIR, pp. V.J.15 – 16.)

Some limited new information has been developed by the site developer, including the Phase II Environmental Site Assessment prepared by Langan Treadwell Rollo, dated June 2015 (“2015 Phase II Report”), that identifies additional contamination following the 1998 SEIR. (Exhibit A, BSK HazMat Report, comments A3, A4, B3, B4.) The 2015

<sup>5</sup> Available at: [http://gsweventcenter.com/Pre-Draft\\_SEIR\\_CEQ/2014\\_1119\\_NOP.pdf](http://gsweventcenter.com/Pre-Draft_SEIR_CEQ/2014_1119_NOP.pdf)

<sup>6</sup> Available at: [http://gsweventcenter.com/MissionBay\\_1998/1998\\_0917\\_MISSIONBAY\\_%20SEIR\\_VOL\\_IIA.pdf](http://gsweventcenter.com/MissionBay_1998/1998_0917_MISSIONBAY_%20SEIR_VOL_IIA.pdf)

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Phase II Report analysis itself is suspect, given the inconsistency and variation in sampling intervals, incomplete and episodic list of analytes, and even more importantly, frequency of analyte application. Regardless, it demonstrates significant hazardous chemical impacts to site soils, which require the DTSC’s review.

Based in part upon review of the 2015 Phase II Report, the BSK HazMat Report explains that additional hazardous waste materials were actually imported onto the Project site during petroleum hydrocarbon remediation activities in 2005. Specifically, contaminated construction debris and other hazardous waste were used as backfill in 2005 in apparent violation of the Mission Bay remedial management plan (“RMP” or the revised-remedial management plan “RRMP”). (BSK HazMat Report, comments A3, B5.) While the prior Mission Bay RMP/RRMP (as modified) may have allowed the movement and reuse of certain levels of contaminated soils, “DTSC’s determination does not apply to building debris or waste soils or other waste materials for any necessary remediation activities.” (BSK HazMat Report, comments A3.) In other words, while the occurrence of petroleum hydrocarbon contamination may have been reduced as a result of subsequent remediation activities, the occurrence and associated risk posed by other forms of contamination actually *increased* following the 1998 SEIR. While the 1998 SEIR could not have addressed this new contamination because it occurred in 2005, this does not excuse the omission of this critical information from the NOP/IS and DSEIR.

The Bay Area Air Quality Management District (“BAAQMD”) recently collected a sample from one of the poorly managed stockpiles at the site and identified that it contained asbestos above the regulatory limits. This single site inspection by an independent regulator identified a new hazard that had never been identified or disclosed by the Board. Some of these materials appear to be present in the storm drains and on the street itself. The Best Management Practices (“BMPs”) to reduce or eliminate these releases are in poor and unmaintained condition for months despite a formal request by our firm to the Board to meet the legal requirements.

### Board’s Failure to Provide Oversight

While reviewing publicly available documents about the site, we found that there have been citizen complaints, as well as complaints from the City of San Francisco and the Port, which eventually the Board issued a Notice to Comply in 2002. It appears that the last site visit by the Board staff was on July 16, 2013 for Site Visit/Inspection/Sampling, but that information is not on GeoTracker or in the files received through a Public Records Act request. Further, the Board issued on March 18, 2015, a courtesy notice to Catellus for failure to submit timely information to GeoTracker by April 20, 2015. These documents have not been posted. We are also aware of



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additional soil and groundwater sampling by various consultants at the site since 2015, which are not posted on the Geotracker website. (See [Exhibit A](#), BSK Technical Memorandum.) In addition, review of the Storm Water Multiple Application and Report Tracking System (“SMARTS”) website, shows what appears to be a pattern of the Board’s acceptance of incomplete and/or incorrect material for the site’s Stormwater Management, and a failure to require annual reports.

Reviewing the minimal pattern of documentation (6 memos, including the citizen complaint) and site inspections (only 1) since 2005, it appears that there has been no site management by the Board for the *entire* Mission Bay Redevelopment Area. Even if the site’s activities were consistent with the RMP/RMMP, that does not excuse the need for continued site control under the Clean Air Act and Clean Water Act, and the need to protect human health and the environment.

The overall development area has had multiple releases to the environment from historic activities, and it is entirely unclear how and whether risks would be managed during project construction. Though the Board has authority over the clean-up activities, it has consistently failed to exercise its due diligence in the protection of human health and the environment from both the original hazardous materials, as well as the remobilized material from its remedial operations. Indeed, it appears that the complex comingling of hazardous materials at the site has resulted from poor site investigation and characterization, within-site hazardous material tracking, backfilling, and site control. In addition, there is little to no control of its waste and site control process ranging from site inspections, reviews, and documentation. Either the Board never completed any of those activities, or it failed to document them. As such, the Board has proven that it is incapable as acting as an effective site lead. As the Board has failed to carry out its duties, action by DTSC is now necessary to protect public health and the environment.

### Risks from Currently Proposed Project

The NOP/IS prepared for the currently proposed project<sup>7</sup> asserts that there is no remaining soil and groundwater contamination issue because, following the 1998 SEIR, remediation occurred in compliance with the Board Order R2-2005-028, which was ultimately rescinded in 2014. (NOP/IS, pp. 117-118.) What the NOP/IS fails to mention, however, is that Order R2-2005-028 and the subsequent remediation effort *solely*

<sup>7</sup> Though Hazards and Hazardous Materials are discussed briefly in the NOP/IS, the DSEIR prepared for the project does not address Hazards and Hazardous materials impacts and instead relies entirely on the analysis provided in the 1998 SEIR.

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addressed petroleum contamination, and no other contaminants onsite.<sup>8</sup> Nor did it address the use of backfill contaminated with other constituents. The site has not been cleaned up for heavy metals, PAH or PCBs.

The limited nature of the prior remediation effort is further demonstrated in the subsequently-prepared RRMP dated August 2006 (“2006 RRMP”). As the BSK HazMat Report explained:

[T]here was no discussion of the semivolatile organic chemicals that were detected in soil and groundwater at the site. Summary tables presented in Appendix A of the RMP indicate that polycyclic aromatic hydrocarbons (PAHs) were detected in the soil at various locations and in groundwater collected from MW-11. A possible source and significance of the PAHs was not presented in the RMP.

(BSK HazMat Report, comment B2.)

The 2015 Phase II Report shows that significant amounts of both previously-existing and subsequently-imported hazardous waste remain on the site today. Backfill used in this area contained Class 1 and 2 hazardous materials that were not present before the excavation and partial removal of petroleum contaminated materials. These materials are not addressed in the RMP/RMMP. The Board allowed this material to be placed in direct contact with the groundwater and it was only identified after MBA independently researched this question with its own consultants. ([Exhibit A](#), BSK HazMat Report, comments A3, B5.) Substantial further investigation is necessary to assess the extent and nature of the groundwater contamination created by the backfill materials. The Board still has not addressed this issue.

The presence of this existing hazardous waste raises many unaddressed issues. First, it appears that this hazardous waste will need to be excavated and removed in order to construct the proposed project: “Significant volumes of soil

<sup>8</sup> This RWQCB’s subsequent Order R2-2014-0022 was limited in scope, and explained that the prior order only “address[ed] the existence of separate phase petroleum hydrocarbons products.” Further, Order R2-2014-0022 also clearly focused on petroleum contamination explained that rescission of that prior order was appropriate because, “Post-remediation groundwater monitoring has shown that the residual petroleum products have very limited impact on the groundwater beneath the site.” (Order R2-2014-0022.)



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Department of Toxic Substances Control  
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classified as hazardous waste will need to be transported offsite and disposed at an appropriate facility causing significant additional impacts during the construction phase.” (Exhibit A, BSK Hazmat Report, comment C1.) The maximum depth of excavation on-site would be approximately 30 feet below San Francisco City Datum; this would require approximately 350,000 cubic yards of soils onsite to be excavated and removed from the site. (2015 NOP/IS, p. 17.) It is not clear how the NOP/IS estimate was derived, or how it relates to the actual excavation needed for purposes of removing contaminated soils.

The large quantity of soil that is known to be contaminated with Class 1 and 2 hazardous waste has not been managed safely to this point, and is likely to be shuffled around the site and the surrounding area. Specifically, the soil may be used as backfill, and for berms both onsite and at the City’s Bayfront Park (3.2 acres of open space). The Board has not identified how the material is tracked and segregated at the site, or why contaminated backfill was placed at the site during the petroleum cleanup activities.

Additionally, the health risk screening levels in the 1998 RMP (and included in the 2006 RRMP) are also extremely outdated and do not adequately protect the public. MBA retained an independent toxicologist to investigate the applicability and effectiveness of the screening levels in the RMP/RRMP that were relied upon for the proposed development project. The attached report prepared by Damian Applied Toxicology, LLC (“Damian”): (1) provides updated screening levels for the constituents at the site; (2) provides newly applicable screening levels that did not exist at the time of the 1998 EIR; (3) compares the new and old screening levels; and (4) compares the updated screening levels to the most recent site investigation data from the Project site. (See Exhibit B, Damian Report.) The Damian Report shows that the prior screening levels are completely outdated and do not protect public health. Using updated screening levels that address a wide range of relevant potential receptors and exposure pathways, the Damian Report concludes that 19 chemicals (18 in soil and 1 in groundwater) that were detected in the 2015 Phase II investigation at the site exceed at least one screening level.

Thus, present contamination poses potentially significant hazards due to impacts to the shallow water table, risks to construction workers exposed to site soils, including backfill, risks to commercial workers at the planned development project, and risks from transport and disposal of this hazardous waste, to the extent it may be taken off site. These hazards are not addressed in the RMP/RRMP.

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Department of Toxic Substances Control  
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Request for Immediate Action

Because of the threat posed by ongoing releases of known Class 1 and 2 hazardous materials, and the immediate plans to conduct major earth moving activities at the site prior to having appropriate regulatory controls in place, MBA requests that DTSC re-engage as direct overseer of hazardous materials at the site. Such oversight could include independent sampling of the stockpile materials, requiring replacement and maintenance of the BMPs, and updating of the site BMP and waste management policies under the RMP/RRMP. We further request that DTSC use the attached Damian Applied Toxicology, LLC updated screening levels analysis as a part of its examination to ensure that human health and the environment are protected.

Please contact me with any questions regarding the information contained in this letter. I would also respectfully request a response within one week to this time-sensitive request for oversight.

Very truly yours,

**SOLURI MESERVE**  
A Law Corporation

By:   
Osha R. Meserve

ORM/mre

Attachments: Exhibit A, BSK HazMat Report  
Exhibit B, Damian Applied Toxicology, LLC Report



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## EXHIBIT A

O-MBA16S6



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Via U.S. Mail and Email (Osha Meserve [osha@semlawyers.com](mailto:osha@semlawyers.com))

July 22, 2015

BSK Project Number E0906601S

Soluri Meserve  
1010 F Street, Suite 100  
Sacramento, CA 95814

Subject: Draft Review  
Hazardous Materials  
Mission Bay Project  
San Francisco, California

Dear Ms. Meserve:

At the request of Soluri Meserve, BSK Associates (BSK) reviewed the following documents:

- A. **Mission Bay Subsequent Environmental Impact Report, Dated September 17, 1998, Sections:**
  - Chapter V.J.1 to V.J.109, Environmental Setting and Impacts, Contaminated Soils and Groundwater
- B. **Risk Management Plan (RMP), Mission Bay Area San Francisco, California, Dated May 11, 1999, Prepared by Environ Corporation and Revised Risk Management Plan, August 2006 Prepared by BBL Environmental Services, Inc.**
- C. **Notice of Preparation of an Environmental Impact Report, Event Center and Mixed-Use Development at Mission Bay Blocks 29-32, Dated November 19, 2014**
  - Pages 106 to 122
- D. **Draft Subsequent Environmental Impact Report, Blocks 29-32, June 5, 2015**
  - Pages 1-60 to 1-62, Summary of Impacts and Mitigation Measures, Hazards and Hazardous Materials
  - Page 5-1
  - Page 6-5

The following section (A1 to A4) presents our comments based on a review of the Mission Bay Subsequent Environmental Impact Report, Dated September 17, 1998

Environmental, Geotechnical, Construction Services, Analytical Testing - [An Employee-Owned Company](#)



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A1. Section V.J.42, Under Existing Human Health Risks, states " ENVIRON compared the maximum concentration of chemicals detected in the soil anywhere in the Project Area to the risk-based preliminary remediation goals (PRGs) developed by U.S. EPA Region IX for the protection of industrial land uses (Region IX Industrial PRGs)." EPA PRGs are currently not considered appropriate for use in the San Francisco Bay Area as site screening levels. PRGs have been replaced by Environmental Screening Levels (ESLs) developed by the San Francisco Bay Regional Water Quality Control Board in 2013 (SFBRWQCB, 2013). The ESL user guide (SFBRWQCB, 2013) identified significant differences between EPA PRGs and SFBRWQCB ESLs, listed below:

"The U.S. EPA Regional Screening Levels or RSLs (formerly PRGs; U.S. EPA, 2013d) address human health concerns associated with direct exposure to chemicals in soil, but do not address ecological concerns. Exposure routes and receptors not addressed by the RSLs, but included in the ESLs are listed below:

- direct-exposure screening levels for construction and trench workers' exposure to subsurface soils;
- groundwater screening levels for vapor intrusion;
- groundwater screening levels for the protection of aquatic habitats/surface water quality
- soil screening levels for urban area ecological concerns;
- soil and groundwater ceiling levels to address potential presence of Non-Aqueous Phase Liquids (NAPL) and nuisance odor concerns
- soil and groundwater screening levels for Total Petroleum Hydrocarbons (TPH)."

Using PRGs would lead to significant gaps in determining the risks from impacts with respect to vapor intrusion, of aquatic habitats/surface water quality and urban area ecological concerns.

A2. Section V.J.43 first paragraph states: "The upper numerical limit of a calculated statistical average of the concentration of each COPIC in the exposed soils was compared with Region IX Industrial PRGs to determine if any PRGs were exceeded." The appropriate use of an averaged concentration typically involves a robust statistical analysis based on a statistically sufficient number of samples with respect to the area size and requires normally distributed values. The number of samples utilized in the analysis appears to be insufficient considering the large area of the project.

A3. Section V.J.53 last paragraphs states: As discussed in more detail in "General Soil Movement and Transport During Construction," below, DTSC has determined that soils excavated during construction in the Mission Bay Project Area can be moved around and reused in the Project Area without triggering hazardous waste management requirements, provided the soils are managed in accordance with RMP measures. However, DTSC's determination does not apply to building demolition debris or waste soils or other waste materials from any necessary remediation activities. In the event these wastes contain levels of constituents that would result

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in their classification as hazardous waste, the hazardous waste regulations described above would apply to those materials."

Based on our review of the boring logs recent Phase II Environmental Site Assessment (Langan, 2015), it appears that soil with construction debris was used as fill during the 2005 remediation effort for the Pier 64 clean-up. Our review of the Langan 2015 report boring log soil descriptions indicates that near surface soils at boring locations LB-8, LB-12, LB-26 and LB-29 contain brick fragments. These borings were completed in the area of the Pier 64 clean-up that reportedly removed petroleum impacted soil to a depth of 9 feet and filled in the area (Langan 2015). Furthermore, as stated in B7 below, the area of fill from the Pier 64 clean-up may contain soil impacted with soluble lead that would classify it as a California Hazardous Waste.

The presence of brick, that is probably demolition debris, and soluble lead in the fill material placed during the Pier 64 clean-up effort, indicates that the Risk Management Plan (RMP) or implementation of the RMP, was ineffective and did not comply with the DTSC determination listed above.

A4. Section V.J.83 under Human Health Risk Assessment states: "The SSTLs were developed using methods consistent with the Risk-Based Corrective Action (RBCA) methodology, as developed by the American Society for Testing and Materials (ASTM) and described in ASTM E-1739, 'Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites, 1995'."

Use of the RBCA methodology may be valid for areas impacted with petroleum hydrocarbon related releases. In other non-petroleum release areas, chemicals-of-concern, such as metals and PAHs not related to petroleum hydrocarbons were detected in soil or groundwater. Use of SSTLs developed for petroleum site based RBCA for non-petroleum related constituents may not be a valid approach. Furthermore, 1995 ASTM E 1739-95 standard under Section 1.1 Scope states: "Ecological risk assessment, as discussed in this guide, is a qualitative evaluation of the actual or potential impacts to environmental (nonhuman) receptors."

**Summary of Review 1998 - Mission Bay Subsequent Environmental Impact Report**

The Mission Bay Subsequent Environmental Impact Report (SEIR), dated September 17, 1998 utilized screening level methods (EPA PRGs) that would not be adequate for current site clean-up standards and would not be appropriate for use on non-petroleum related constituents. The number of samples utilized in the analysis appears to be insufficient considering the large area of the project. Risk Management Plan (RMP) or implementation of the RMP, was ineffective and did not comply with the DTSC determination. Furthermore, the methodology used to develop site risk screening values did not properly incorporate ecological receptors. Given these changes and deficiencies, with consideration of current site conditions, a re-evaluation using current methods and standards of the environmental impacts and risks is required.

The following section (B1 to B7) presents our comments based on a review of the Risk Management Plan (RMP), Dated May 11, 1999 and Revised RMP dated August 2006.

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- B1. Page 2-1, there was no discussion of the semivolatile organic chemicals that were detected in soil and groundwater at the site. Summary tables presented in Appendix A of the RMP indicate that polycyclic aromatic hydrocarbons (PAHs) were detected in the soil at various locations and in groundwater collected from MW-11. A possible source and significance of the PAHs was not presented in the RMP.
- B2. Page 2-2, the RMP states “No chemicals were detected at concentrations that would pose a threat to human health or the aquatic ecosystem following the completion of the planned development, with the potential exception of the Free Product Area.” Based on our review of the receptors presented in Appendix E, Tables E-1, E-2, E-3 and E-4, it appears that ecologic receptors were not included in the risk assessment.
- B3. Page 3-2, Section 3.2 states: “In addition, mean chemical concentrations in surface soil (estimated by calculating the 95 percent upper confidence limit (UCL) of the arithmetic mean) were below the ITLs developed under assumptions of long-term (i.e., 25 to 30 years) direct contact pathways (i.e., soil ingestion and dermal contact).” The use of mean concentrations typically involves a robust statistical analysis based on a statistically sufficient number of samples with respect to the area size. The number of samples utilized in the analysis appears to be insufficient considering the large area of the project. Furthermore, the depth of soil sampling was limited to samples collected at less than five feet below the ground surface (bgs). Proposed developments may require excavating soil to depths significantly deeper than 5 feet bgs. This may expose receptors to soils that have not been adequately characterized. The recent Phase II Environmental Site Assessment (Langan, 2015) performed additional soil sampling at Blocks 29 to 32 and found “The fill unit was characterized as either a State of California Class I hazardous material based on soluble chromium, lead, and nickel concentrations or a Class II non-hazardous material, likely related to debris from the 1906 earthquake and resulting fire.” Designation of the site soils as California Class I hazardous waste is a significant change from what was presented in the 1998 RMP. Additional impacts that would result from excavating and transportation of a large volume of soil for off-site disposal at a Class I disposal site were not evaluated in the 1998 Subsequent Environmental Impact Report (SEIR).
- B4. Page 4-1, Section 4.1 states: “As described below in Section 4.3.11, additional sampling may be required on individual development parcels in order to comply with the Ordinance Requirements for Analyzing the Soil for Hazardous Wastes in Appendix F. Depending on the results obtained during any additional sampling, supplemental management measures, in addition to the management measures identified below, may be required on a parcel-by-parcel basis.” The RMP specified a deferred sample and analysis protocol to a later date and as stated in section A4 above, deferred analysis may produce dramatically different results. Significant volumes of soil classified as hazardous waste will need to be transported off-site and disposed at an appropriate facility causing significant additional impacts during the construction phase.
- B5. Section 4.3.5.3 indicates that excavated soil may be re-used as fill on-site. There is no contingency for the handling of excavated wooden piles or railroad ties that may be treated with wood preservatives (creosote) that may be classified as a RCRA hazardous waste. Creosote

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- often contains polycyclic aromatic hydrocarbons (PAHs), some of which are listed RCRA hazardous waste constituents.
- B6. Section 4.3.5.3 allows for re-use of soils that may potentially be hazardous waste as fill inside the RMP. Based on our review of the recent Phase II Environmental Site Assessment (Langan, 2015), it appears that soil with elevated lead levels were used as fill during the 2005 remediation effort for the Pier 64 clean-up. Shallow soil samples collected from Langan Treadwell Rollo borings LB-12, LB-13, LB-26, LB-27, LB-28, LB-29 and LB-30 had results of soluble lead (California Waste Extraction Test) above the California Soluble Threshold Limit Concentration (STLC) that would classify the soil as hazardous waste. These soil samples were collected in the Pier 64 clean-up fill area (See Figure 2 of Langan 2015 report) at depths of less than 9 feet below the ground surface (bgs). The Pier 64 clean-up reportedly removed petroleum impacted soil to a depth of 9 feet and filled in the area (Langan 2015). The re-use of soil that is classified as hazard waste resulted in a significant volume of soil that, if excavated and removed from the RMP area will need to be transported off-site and disposed at an appropriate facility. These are new and additional impacts not previously incorporated into the impact analysis. These additional impacts must be incorporated into additional risks to receptors outside the RMP as well as additional traffic, noise, and air contaminants.
- B7. Page 4-22 states “If the levels are below the relevant health-based Site Specific Target Levels (SSTLs), and the RWQCB concludes that the potential for ecological impacts is insignificant and does not require mitigation, then soil removal activities will not be required and the soil may be temporarily stored elsewhere pending reuse in the RMP Area.” Based on our review of the receptors presented in Appendix E, Tables E-1, E-2, E-3 and E-4, it appears that ecologic receptors were not included in the risk assessment.

### Summary of Review 1999 - Risk Management Plan

The Risk Management Plan (RMP), dated May 11, 1999 and Revised RMP dated August 2006 failed to properly identify possible sources and significance of the PAHs and did not have disposal protocols for PAH containing wastes. The site specific target levels developed for the site did not include ecological receptors. The RMP utilized an insufficient number of samples and questionable statistical analysis techniques considering the large area of the project. The RMP did not have developed protocols for addressing off-site disposal of large volumes of soil that is currently classified as California Class I Hazardous Waste.

The following section (C1 to C2) presents our comments based on a review of Notice of Preparation of an Environmental Impact Report/Initial Study (NOP/IS), Dated November 19, 2014.

- C1. Page 106 under Topics: 16. Hazards and Hazardous Material – Would the project: a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? Is listed as “No New or More Severe Significant Effects.” As stated in A4 above this is in direct conflict with the findings of the recent Phase II Environmental Site Assessment (Langan 2015). Significant volumes of soil classified as hazardous waste will

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need to be transported off-site and disposed at an appropriate facility causing significant additional impacts during the construction phase. The transportation of hazardous waste off-site will increase the potential for items b) and c) on page 106. Excavation and transportation of soil to a Class I hazardous waste disposal site would significantly increase the potential for release of hazardous materials during the loading, excavation and transportation process. The additional trucking will cause additional exposures to exhaust fumes, traffic and noise. The additional impacts related to off-site transportation of hazardous waste will require further evaluation.

- C2. Page 114 introduces Mitigation Measure M-HZ-1b: "Geologic Investigation and Dust Mitigation Plan for Naturally Occurring Asbestos." M-HZ-1b is a new mitigation measure for an impact that was not addressed in the 1998 SEIR. The new hazards associated with Naturally Occurring Asbestos (NOA) conflicts with the designation of "No New or More Severe Significant Effects" on items 16 a), 16 b) and 16 c) listed on page 106 of the NOP.

### Summary of Review 2014 Notice of Preparation of an Environmental Impact Report (NOP)

The Notice of Preparation (NOP), dated November 19, 2014 failed to identify new or more severe significant effects with respect to the large volume of soil classified as Class I hazardous waste that will require off-site disposal at a Class I Hazardous Waste Disposal Facility. New mitigation measures for naturally occurring asbestos were not properly identified as new or more severe significant effects.

The following section (D1 to C4) presents our comments based on a review of the Draft Subsequent Environmental Impact Report, Blocks 29-32, June 5, 2015.

- D1. Page 1-61 under Hazards and Hazardous Materials, Initial Study Section E16, does not include the findings in the recent Phase II Environmental Site Assessment (Langan, 2015) with respect to significant volumes of soil classified as hazardous waste that will need to be transported off-site and disposed at an appropriate facility causing significant additional impacts during the construction phase. These additional impacts were not previously included in the impact analysis.
- D2. Page 1-61 Impact HZ-2, under Mission Bay FSEIR Mitigation Measure J.2, the RWQCB is listed as the agency responsible for reviewing risk evaluations for a public school or child care facility. The Department of Toxic Substances Control (DTSC) School Property Evaluation and Cleanup Division is the responsible agency for assessing, investigating and cleaning up proposed school sites (DTSC, 2015).
- D3. Page 5.1-1 under 5.1.1 Scope of Analysis, Issues Scoped Out in the Initial Study, states "The Initial Study determined that the following topics were adequately analyzed in the Mission Bay FSEIR such that the proposed project would have no new significant impacts or no substantially more severe significant impacts than those previously found significant on these resources:... Hazards and Hazardous Materials;..." As stated in C1 above significant volumes of soil classified as hazardous waste will need to be transported off-site and disposed at an appropriate facility

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### Martin B. Cline, C.E.G. – Project Geologist

LiDAR to develop a Digital Elevation Model (DEM) for 21 linear miles of Putah Creek for USACE NWP-27 and for a Regional General Permit.

*Cache Creek Plans, Yolo County, CA* – Provided GIS support. LiDAR vegetation analysis for patch and trajectory modeling, as well as channel migration studies, to technical advisors for approximately 19.5 miles of restoration planning for the Cache Creek Yolo County Resource Management Planning Area.

### Professional Organizations

American Society of Civil Engineers

Association of Environmental and Engineering Geologists

ASFE - Professional Firms Practicing in the Geosciences

URISA-Northern California Urban and Regional Information Systems Association

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## Kurt Balasek, PG, CHG, QSD – Senior Hydrogeologist



### Professional Background:

Mr. Balasek is the Sacramento Senior Hydrogeologist for BSK. He has more than 25 years experience providing geologic, hydrogeologic and environmental consulting to western U.S. businesses and government agencies. His experience includes managing teams of scientists and engineers on projects ranging from large-scale brownfield developments, CEQA compliance and groundwater studies. He has provided project management of water resource evaluations and conjunctive use studies, as well as numerous petroleum hydrocarbon-related groundwater contamination investigations and remedial designs. Mr. Balasek has completed geologic hazard studies for proposed school sites in accordance with the Office of State Architect requirements and has completed detailed geologic surface mapping assignments in the foothills of the Sierra Nevada.

Mr. Balasek has spent his career working to evaluate hundreds of properties for the purposes of development, redevelopment and preservation as conservation easements. Conducting or leading these evaluations has given Mr. Balasek vast experience preparing site investigation strategies with an emphasis toward negotiating with regulatory agencies regarding future land use. Mr. Balasek has worked with redevelopment teams in numerous northern California cities and extensively under EPA community-wide assessment grants in the Cities of West Sacramento, Esparto, and Rancho Cordova. He has worked with local, State, and Federal agencies in evaluating a wide range of environmental contaminated and lighted, assessing community needs, and using tools to develop site cleanup goals. His skills of using land use covenants and maintenance tools provides for blighted property that have led to showcases community revitalization efforts. Mr. Balasek has completed numerous landfill characterization studies and provided detailed analysis to assist in consolidation and clean closure decision making.

### Representative Project Experience:

**City of Rancho Cordova, California, Community Redevelopment Agency, Brownfield Assessments**-Mr. Balasek provided senior management oversight on a community-wide assessment of over 460 properties in Rancho Cordova, California. Approximately 30 parcels warranting Phase I and/or Phase II Environmental Site Assessments (ESAs) were identified. To date, a Phase I and II ESA were conducted on two parcels of a planned community college campus.

### Qualifications

#### Registrations:

Professional Geologist,  
California, No. 6162

Certified Hydrogeologist,  
California, No. 299

#### Education:

MS, Hydrogeology,  
California State University, Chico  
1989

BA, Geology. University of  
California, Santa Barbara, 1985

#### Experience:

BSK Associates 2009

1991-2009, Wallace-Kuhl  
Director of Environmental  
Services

1989 – 1991 Terrestrial Tech.  
Senior Staff Hydrogeologist

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## Kurt M. Balasek, PG, CHG, QSD– Senior Hydrogeologist

**Putah Creek Park North Bank Improvement Project, California**-The North Bank Improvement Project stemmed from a federal appropriation of 2 million dollars to enhance the Solano County Transportation Department's automobile bridge replacement at the City of Winters. The project funds are administered by CalTrans so extensive coordination with this agency regarding project description and permitting has been a substantial portion of this project. The project was developed by the City of Winters. Mr. Balasek and his team were initially tasked with obtaining the biological opinion for mitigation as it related to disturbance of Valley Elderberry shrubs. Instead of purchasing mitigation credits from a Service-approved mitigation bank, Mr. Balasek and his staff devised a unique plan to develop a small on-site mitigation area within the Winters Putah Creek Nature Park. If approved, the mitigation area will provide enough mitigation credits to offset the Solano County Bridge project, the north bank improvement project and a proposed pedestrian bridge. Money will be set aside for maintenance of the mitigation area in perpetuity but will enable the project proponents to mitigate habitat damage locally and keep local control of the money. To develop this plan, Mr. Balasek and his team developed the financial model to predict the amount of money required to establish a non-wasting endowment. This model was submitted to USFWS and is undergoing review. U.S. Representative Mike Thompson and his staff are involved in the project and are assisting with negotiations with USFWS.

**Winters Putah Creek Park Revised Master Plan CEQA Support- Winters, California**-Mr. Balasek and his team prepared the Initial Study/Mitigated Negative Declaration (IS/MND) based on the revised master plan for Winters Putah Creek Park. This document was compiled in advance of implementing several projects outlined in the park master plan. The document was reviewed by the Winters City Council and adopted by the Winters planning commission without comment by the trustee agencies and with only one comment from the public. The document framed the foundation for environmental permitting for all of the following restoration-related projects.

**City of West Sacramento, Housing and Community Investment Division, West Sacramento, California**-Mr. Balasek has managed several Environmental Projects for the City of West Sacramento, including: West Capitol Corridor Study, 427 "C" Street, Tower Court, Sacramento Generator, and Vlad's Toyota.

**City of Winters PG&E Training Center, Winters California**-During critical property negotiations, due diligence studies revealed the historic presence of an underground fuel storage tank. Mr. Balasek was retained by the City on an emergency basis to advise City Council and staff. Mr. Balasek mobilized BSK resources and conducted a comprehensive, soil, groundwater and soil vapor investigation on the site. Mr. Balasek also advised the City throughout the project and represented the City in numerous negotiations with PG&E. As a result of a well planned and executed investigation, a \$70 million state-of-the-art training facility project is moving through the CEQA process and is scheduled to break ground late in 2015. This project is a huge success for the small City of Winters and will act as a catalyst for a downtown hotel project. Mr. Balasek's work in the field and at the negotiating table were a key part of the success of this project.

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[Kurt M. Balasek, PG, CHG, QSD– Senior Hydrogeologist](#)

**Stockton Worknet Center, Stockton, California**–Provided project management for a contaminated site. The site characterization and remediation was funded by a State of California Brownfield Grant. The source of contamination was determined to have come from a pipeline located under railroad tracks. Removal and backfill of soil from an excavation that was 35 feet wide by 400 feet long was completed prior to construction of the new center.

**River City Baseball – River Cats Stadium, West Sacramento, California**–The site was located adjacent to a chemical mixing plant and as part of the owner's due diligence an environmental assessment was conducted. Contamination of volatile organics was determined and remediation followed. Based on these findings the foundation design was also adjusted to accommodate shallow groundwater. Based on Mr. Balasek's recommendation, Gorsorb™, a passive form of soil vapor testing, was used to delineate the contamination. A Risk Assessment report was provided to determine if the level of contamination exposure based on the properties intended use. All this work was completed at an accelerated pace to facilitate construction.

**Colusa County, Three UST Sites, Colusa, California**–Underground storage tanks at the County Sheriff's Department, Central Services, and County Jail were removed soil and water samples were tested for contamination. As project manager, Mr. Balasek managed the team who provided soil excavation and shallow groundwater monitoring for petroleum hydrocarbons. The three projects took place concurrently resulting in a cost savings to the county.

**Sacramento International Airport Terminal Construction, Sacramento, California**–Mr. Balasek and his team installed monitoring wells and conducted aquifer performance tests in advance of massive dewatering efforts to facilitated construction at the new Sacramento International Airport Terminal project. Data developed from this study was used to quantify discharge volumes and evaluate water quality. The data was subsequently used as the basis for dewatering design related to a large basement structure extending approximately 17 feet below grade for the entire terminal building as well as subterranean tunnel structures. The new Sacramento Terminal opened in the fall of 2011.

**Yolo Ranch Agricultural Landfill Remediation, Yolo County, California**–Provided project management and oversight during landfill excavation and remediation. This project involved careful coordination with regulatory personnel from the Illegal Abandoned Landfill Group at the former California Integrated Waste Management Board to remove and/or encapsulate a wide range of ag-related waste in the Yolo ByPass. The work involved remediation and subsequent site closure of an agricultural landfill adjacent to sensitive natural habitats. This work was done as part of a property transaction and demonstrated creative problem solving that included an on-site solution which saved the client tens of thousands of dollars.

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[Kurt M. Balasek, PG, CHG, QSD– Senior Hydrogeologist](#)

**Butte County, California**–Mr. Balasek and his team conducted the base-line hydrogeologic analysis of the site vicinity in support of the gravel mining permit application submitted to Butte County. Mr. Balasek's team also conducted the slope stability evaluations for the propose mine. Both technical documents were used to support an EIR commissioned by Butte County on behalf of the project proponent. In addition, Mr. Balasek's team provided consultation on pit capture and anadromous fish entrapment if high water resulted in overtopping of the pit. The work also involved analyzing resource data to identify the bottom of economically recoverable resource.

**Cold Spring Rancheria, Tollhouse, California**–Mr. Balasek oversaw the preparation of a comprehensive long range water development program for the Cold Springs Rancheria. This program examined available surface and groundwater resources, outlined potential problems with existing infrastructure and water rights and prioritize projects for improvement. Mr. Balasek and his staff also prepared a revised Quality Assurance Assessment Plan (QAAP) for the Rancheria that outlined procedures for all field sampling activities. These plans were funded by the Bureau of Indian Affairs and are required planning documents in advance of project implementation funding.

### Professional Organizations

American Society of Civil Engineers  
Association of Environmental and Engineering Geologists  
ASFE - Professional Firms Practicing in the Geosciences  
Water Resource Association of Yolo County  
Winters Education Foundation  
City of Winters, Putah Creek Park Committee  
Solano Resource Conservation District  
Groundwater Resources Association of California

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## EXHIBIT B

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**DAMIANAPPLIED TOXICOLOGY, LLC**  
Advanced Assessment of Chemical Risks to Health and the Environment

[www.appliedtox.com](http://www.appliedtox.com)

October 20, 2015

Ms. Osha Meserve  
Soluri Meserve  
1010 F Street, Suite 100  
Sacramento, California 95814

Subject: Updated Soil and Groundwater Screening Levels for the Golden State Warriors Arena  
Construction Project in the Mission Bay South Redevelopment Plan Area, San Francisco

Dear Ms. Meserve:

Your office requested that **Damian Applied Toxicology, LLC (DAT)** develop updated soil and groundwater screening levels for the Golden State Warriors Arena Construction Project and compare those values to both the previous screening levels and site investigation data presented in the *Phase II Environmental Site Assessment (Phase II)* (Langan Treadwell and Rollo [LTR], 2015).

Screening levels are levels of a chemical in environmental media, for example soil or groundwater, which are considered safe for long-term exposure. Screening levels are developed based on the environmental media of interest, the exposed population of interest (e.g. residents or commercial workers), and the relevant exposure pathway (e.g. drinking water for groundwater or dermal contact with soil). Screening levels may be developed to protect human health or ecological receptors (e.g. aquatic and terrestrial wildlife). In most cases, regulatory agencies have already developed screening levels for certain chemicals in soil or water. However, in some cases (e.g. construction workers) no such screening levels have been developed and a risk assessor must develop new screening levels using scientifically-defensible methods and assumptions. Typically, such methods and assumptions are obtained from the United States Environmental Protection Agency (USEPA), the state agency responsible for review of health risk assessments, or a combination of the two.

The previous screening levels were originally presented in the *Risk Management Plan, Mission Bay Area, San Francisco, California* (RMP) (ENVIRON, 1999), and were referenced without revision in the *Revised Risk Management Plan* (BBL, 2006). Risk-based screening levels change fairly rapidly over time due to new developments in the toxicological science underlying such levels, as well as state and federal risk assessment policy changes. In addition, in most cases, screening levels become more stringent over time, not less so. Thus, in the 16 years since the 1999 RMP was prepared many of the originally proposed screening levels have become obsolete and are no longer adequately protective. Finally, the original screening levels did not address construction workers, exposure of indoor workers to volatile chemicals via vapor intrusion, or ecological risks. The purposes of this report therefore, are: 1) to update the 1999 screening levels, 2) provide new screening levels to address ecorisk, construction workers and vapor intrusion, 3) compare the new screening levels to the previous screening levels, and 4) compare the new screening levels to the most recent site investigation data as presented in the Phase II report (LTR, 2015). The following sets of screening levels were therefore developed for all of the chemicals originally listed in the 1999 RMP (as shown in Appendices B and E from that report):

- Soil screening levels for off-site (nearby) residents and on-site commercial workers
- Soil screening levels for on-site construction workers

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- Soil screening levels to protect ecological receptors (terrestrial wildlife)
- Groundwater screening levels for drinking water
- Groundwater screening levels to protect indoor workers from vapor intrusion
- Groundwater screening levels to protect aquatic life

Note that since no residential development is planned for the arena project site, screening levels were not developed for on-site residential use.

### SCREENING LEVEL DEVELOPMENT

Details regarding the development of the screening levels are provided below.

#### Soil Screening Levels for Off-Site Residents and On-Site Commercial Workers

Off-site residents located close to the site were identified as a potential receptor population in the 1999 RMP. This receptor would not have direct contact with site soils by either inadvertent ingestion or dermal contact but may be exposed to chemicals released into the air either by resuspension of soil particulates (for non-volatile chemicals such as metals) or by volatilization (volatile chemicals such as benzene). On-site commercial workers, on the other hand, would be directly exposed to site soils by soil ingestion, dermal contact and inhalation.

Updated soil screening levels for these receptors were obtained primarily from the latest version of the United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) (USEPA, 2015). However, if a corresponding Department of Toxic Substance Control (DTSC) value was available for a particular chemical that value was used preferentially (DTSC, 2015). For the off-site resident, exposed only via inhalation, the Inhalation Screening Level was used. It is important to note that both children and adults are taken into consideration in the development of the residential screening levels and the most stringent value protective of both the adult and child was used. For the on-site commercial worker, the screening level reflecting all soil exposure pathways was used. For carcinogenic chemicals the lower of the cancer or non-cancer risk-based value was used. The resulting values for non-volatile chemicals are shown in Table 1. Table 1 shows that many of the updated screening levels (particularly for the on-site commercial worker) are well below (more stringent than) the older 1999 screening levels (as indicated in yellow highlight).

It should be noted that the screening level for arsenic (12 mg/kg) is not health risk-based. The value of 12 mg/kg is based on the upper bound of naturally occurring arsenic in California (Bradford et al., 1996). By convention in California, a background-based value for arsenic is normally used as the screening level for arsenic at contaminated sites instead of a health risk-based value (California Environmental Protection Agency [CalEPA], 2005). This is because a strictly health risk-based value would be well below naturally occurring background levels.

The screening level for lead for on-site commercial workers is the California Human Health Screening Level (CHHSL) of 320 mg/kg (Office of Environmental Health Hazard Assessment [OEHHA], 2009). The same value is also protective of off-site residents as the contribution of inhalation exposure to lead is negligible relative to soil ingestion (DTSC, 2011), and off-site residents would only be exposed via inhalation.

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Updated screening levels for volatile chemicals in soil are shown in Table 2. Table 2 shows that virtually all of the updated screening levels for both off-site resident and on-site commercial worker are well below the older 1999 screening levels (as indicated in yellow highlight).

#### Soil Screening Levels for On-Site Construction Workers

The 1999 RMP did not address construction workers. However, construction workers have higher levels of exposure to soils than either residents or commercial workers. Therefore, screening levels for this receptor population are warranted.

Neither USEPA nor any California regulatory agency has developed risk-based screening levels for construction workers. However, USEPA has established calculation methods for developing such levels (USEPA, 2002 and 2015), and the California DTSC has established default exposure parameters for construction worker risk assessment that can be used in the USEPA equations. The soil construction worker equations presented in USEPA (2015) were used to calculate soil screening levels for the construction worker. Screening levels were calculated assuming worker exposure via soil ingestion, dermal contact with soil, and inhalation. The screening levels were calculated using the DTSC exposure parameters shown in Table 3. Toxicity criteria used in the calculations were obtained first from DTSC (2015), and if not available from DTSC (2015), from USEPA (2015). For carcinogenic chemicals the lower of the cancer or non-cancer risk-based value is shown as the final recommended screening value. The resulting screening levels for non-volatile chemicals are shown in Table 4. Note that the screening level for arsenic was assumed to be 12 mg/kg, as discussed previously. The screening level for lead for on-site construction workers was assumed to be the commercial/industrial worker CHHSL of 320 mg/kg (OEHHA, 2009). Screening levels for volatile chemicals are shown in Table 5.

#### Soil Screening Levels for Protection of Ecological Receptors

The 1999 RMP did not include any ecorisk-based soil screening levels, therefore, ecorisk-based soil screening levels for the protection of terrestrial wildlife were obtained from key USEPA references. Available screening levels for non-volatile chemicals and volatile chemicals are shown in Tables 6 and 7, respectively.

#### Groundwater Screening Levels Based on Drinking Water Exposure

Groundwater screening levels based on human drinking water exposure were considered to be the State of California enforceable drinking water standard, that is, the Maximum Contaminant Level (MCL) (CalEPA, 2015). However, if an MCL was not available for a particular chemical the USEPA RSL for tapwater ingestion was used (USEPA, 2015). The updated groundwater screening levels are shown in Table 8.

#### Groundwater Screening Levels to Protect Indoor Workers from Vapor Intrusion

The 1999 RMP did not include screening levels to protect indoor workers from vapor intrusion due to volatile chemicals in groundwater. The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), as part of its Environmental Screening Level (ESL) program, has developed groundwater screening levels to protect workers from this type of chemical exposure (SFBRWQCB, 2013). These values are shown in Table 9.



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### Groundwater Screening Levels for the Protection of Aquatic Life

The 1999 RMP also did not provide screening levels for the protection of aquatic life from contaminated groundwater. There is a potential for groundwater on the site to daylight or infiltrate into freshwater or estuarine wetlands. Therefore, groundwater screening levels protective of aquatic life were obtained for each of these aquatic habitat types from SFBRWQCB (2013). These values are shown in Table 10.

### COMPARISON OF PHASE II DATA TO UPDATED SCREENING LEVELS

Table 11 compares the updated soil screening levels to the maximum soil concentration reported in the Phase II (LTR, 2015). In the Phase II, soils were analyzed in some cases to a maximum depth of 31 ft below ground surface (bgs), but in all cases to at least 10 ft. However, with the exception of barium, the maximum concentrations were all detected within 10 ft bgs. The maximum detected concentration of barium was found at 20 ft; however, this value did not exceed any screening level.

Only those chemicals exceeding at least one of the updated screening levels are shown. Table 11 shows that 18 chemicals exceed at least one of the new screening levels and many of these chemicals exceed more than one screening value. Chemicals exceeding at least two screening levels include arsenic, benzo(a)pyrene, cadmium, lead, and nickel. The greatest exceedances of a screening level were due to lead and nickel. Arsenic was only slightly exceeded (maximum of 13 mg/kg compared to a screening level of 12 mg/kg).

Table 12 shows those chemicals which exceed at least one of the updated groundwater screening levels. Based on the Phase II data, only benzene exceeded a groundwater screening level, and this was based on drinking water exposure.

In summary, using updated screening levels that address a wide range of relevant potential receptors and exposure pathways, 19 chemicals (18 in soil and 1 in groundwater) detected in the Phase II exceed at least one screening level. Of particular importance are lead and nickel due to the significant exceedances of these two chemicals.

### CLOSING

Thank you for this opportunity to provide you with our services. Please don't hesitate to call or email should you have any questions or comments regarding this report.

Sincerely,



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### REFERENCES

BBL. 2006. Revised Risk Management Plan. Former Petroleum Terminals and Related Pipelines Located at Pier 64 and the Vicinity, City and County of San Francisco, California.

Bradford, G.R., Chang, A.C., Page, A.L., Bakhtar, D., Frampton, J.A. and H. Wright. 1996. Background Concentrations of Trace and Major Elements in California Soils. University of California-Riverside.

CalEPA. 2005. Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties. Sacramento.

CalEPA. 2015. MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants. August 10, 2015. Accessed via the Internet at: [www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/MCLsandPHGs.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/MCLsandPHGs.shtml)

DTSC. 2011. User's Guide to LeadSpread 8 and Recommendations for Evaluation of Lead Exposures in Adults.

DTSC. 2013. Preliminary Endangerment Assessment Guidance Manual. Sacramento.

DTSC. 2014. Human Health Risk Assessment (HHRA) Note. HERO HHRA Note Number 1: Recommended DTSC Default Exposure Factors for Use in Risk Assessment at California Hazardous Waste Sites and Permitted Facilities. Issue Date: September 30, 2014. Sacramento.

DTSC. 2015. Human Health Risk Assessment (HHRA) Note. HERO HHRA Note Number 3: DTSC-Modified Screening Levels (DTSC-SLs). Release Date: May, 2015. Sacramento.

ENVIRON. 1999. Risk Management Plan. Mission Bay Area. San Francisco, California. Emeryville.

LTR. 2015. Phase II Environmental Site Assessment. Golden State Warriors Arena, Blocks 29-32, Mission Bay, San Francisco, California. San Francisco.

OEHHA. 2009. Revised California Human Health Screening Levels for Lead. Sacramento.

SFBRWQCB. 2013. User's Guide: Derivation and Application of Environmental Screening Levels. Oakland.

USEPA. 2001. Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Accessed via the Internet at: [www.epa.gov/region4/superfund/programs/riskassess/ecolbul.html](http://www.epa.gov/region4/superfund/programs/riskassess/ecolbul.html)

USEPA. 2002. Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites. OSWER 9355.4-24. Washington, D.C.

USEPA. 2005a. Ecological Soil Screening Levels for Antimony. Interim Final. OSWER Directive 9285.7-61. Washington, D.C.



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USEPA. 2005b. Ecological Soil Screening Levels for Arsenic. Interim Final. OSWER Directive 9285.7-62. Washington, D.C.

USEPA. 2005c. Ecological Soil Screening Levels for Barium. Interim Final. OSWER Directive 9285.7-63. Washington, D.C.

USEPA. 2005d. Ecological Soil Screening Levels for Beryllium. Interim Final. OSWER Directive 9285.7-64. Washington, D.C.

USEPA. 2005e. Ecological Soil Screening Levels for Cadmium. Interim Final. OSWER Directive 9285.7-65. Washington, D.C.

USEPA. 2005f. Ecological Soil Screening Levels for Chromium. Interim Final. OSWER Directive 9285.7-66. Washington, D.C.

USEPA. 2005g. Ecological Soil Screening Levels for Cobalt. Interim Final. OSWER Directive 9285.7-67. Washington, D.C.

USEPA. 2005h. Ecological Soil Screening Levels for Lead. Interim Final. OSWER Directive 9285.7-70. Washington, D.C.

USEPA. 2005i. Ecological Soil Screening Levels for Vanadium. Interim Final. OSWER Directive 9285.7-75. Washington, D.C.

USEPA. 2006. Ecological Soil Screening Levels for Silver. Interim Final. OSWER Directive 9285.7-77. Washington, D.C.

USEPA. 2007a. Ecological Soil Screening Levels for Copper. Interim Final. OSWER Directive 9285.7-68. Washington, D.C.

USEPA. 2007b. Ecological Soil Screening Levels for Nickel. Interim Final. OSWER Directive 9285.7-76. Washington, D.C.

USEPA. 2007c. Ecological Soil Screening Levels for Selenium. Interim Final. OSWER Directive 9285.7-72. Washington, D.C.

USEPA. 2007d. Ecological Soil Screening Levels for Zinc. Interim Final. OSWER Directive 9285.7-73. Washington, D.C.

USEPA. 2015. Regional Screening Table. June 2015 (Accessed via the Internet at: [http://www.epa.gov/reg3hwm/risk/human/rb-concentration\\_table/](http://www.epa.gov/reg3hwm/risk/human/rb-concentration_table/))

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Table 1

Updated and Previous Health Risk-Based Soil Screening Levels for the Off-Site Resident and On-Site Commercial Worker  
Non-Volatile Chemicals

Chemical	Screening Level (mg/kg)			
	Off-Site (Nearby) Resident Updated <sup>1</sup>	Off-Site (Nearby) Resident Previous <sup>2</sup>	On-Site Commercial Worker Updated <sup>1</sup>	On-Site Commercial Worker Previous <sup>2</sup>
<i>Polycyclic Aromatic Hydrocarbons</i>				
Acenaphthene	NA	1,880,000	45,000	69,000
Acenaphthylene	NA	1,250,000	NA	46,000
Anthracene	NA	9,390,000	230,000	347,000
Benzo(a)anthracene	41	3,448	2.9	27
Benzo(g,h,i)perylene	NA	1,250,000	NA	46,000
Benzo(a)pyrene	1,300	345	0.29	2.7
Benzo(b)fluoranthene	13,000	3,448	2.9	27
Benzo(k)fluoranthene <sup>3</sup>	34,700	3,448	1.3	27
Chrysene <sup>4</sup>	1,680	34,000	13	272
Dibenz(a,h)anthracene	1,100	328	0.29	7.9
Fluoranthene	NA	1,250,000	30,000	46,000
Fluorene	NA	1,250,000	30,000	46,000
Indeno(1,2,3-cd)pyrene	13,000	3,448	2.9	27
2-Methylnaphthalene	NA	1,250,000	3,000	46,000
Naphthalene	3.8	1,250,000	17	46,000
Phenanthrene	NA	9,390,000	NA	347,000
Pyrene	NA	939,000	23,000	35,000
<i>Polychlorinated Biphenyls (as Aroclor 1254)</i>				
	4.1	NA	0.97	NA
<i>Petroleum Hydrocarbons<sup>4</sup></i>				
TPH-Gasoline	NA	1,720,000	500	74,000
TPH-Diesel	NA	16,000,000	110	686,000
TPH-Motor Oil	NA	126,000,000	500	5,420,000
<i>Metals</i>				
Antimony (as trioxide)	280,000	12,514	1,200,000	764
Arsenic <sup>5</sup>	1,160	112	12	29
Barium	710,000	4,380	220,000	12,949
Beryllium <sup>1</sup>	1,590	160	21	12
Cadmium <sup>1</sup>	909	90	5.7	191
Chromium (as trivalent) <sup>3</sup>	NA	31,285,714	270,000	1,910,423
Chromium (as hexavalent)	16	2.6	6.3	5.4
Cobalt	420	9,073	350	23,640
Copper	NA	1,157,571	47,000	70,686
Lead <sup>5</sup>	320	10,748	320	4,203
Mercury <sup>3</sup> (as elemental)	0.96	2,691	3.9	164
Molybdenum	NA	156,429	5,800	9,552
Nickel (as soluble salts)	14,700	1,478	1,500	3,145
Selenium	28,000,000	156,429	5,800	9,552
Silver	NA	156,429	5,800	9,552
Thallium (as soluble salts)	NA	2,503	12	153
Vanadium <sup>1</sup>	142,000	219,000	1,500	13,373
Zinc	NA	9,385,714	350,000	573,127

Notes:

<sup>1</sup>All values obtained from the USEPA Regional Screening Levels (USEPA, 2015) unless otherwise noted. Values for off-site resident reflect inhalation exposure only. Values for on-site commercial worker reflect exposure from soil ingestion, inhalation and dermal contact.

<sup>2</sup>Values obtained from ENVIRON (1999).

<sup>3</sup>Values obtained from DTSC (2015).

<sup>4</sup>Values are Environmental Screening Levels (ESLs) obtained from SFBWQCB (2013).

<sup>5</sup>See text.

NA = Not available.

Yellow highlight indicates that the updated screening level is lower (more stringent) than the corresponding ENVIRON (1999) screening level.



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Table 2

Updated and Previous Health Risk-Based Soil Screening Levels for the Off-Site Resident and On-Site Commercial Worker  
Volatile Chemicals

Chemical	Screening Level (mg/kg)			
	Off-Site (Nearby) Resident Updated <sup>1</sup>	Off-Site (Nearby) Resident Previous <sup>2</sup>	On-Site Commercial Worker Updated <sup>1</sup>	On-Site Commercial Worker Previous <sup>2</sup>
Acetone	440,000	71,000	670,000	330,000
Benzene <sup>3</sup>	0.35	63	1.4	77
2-Butanone (Methyl ethyl ketone)	64,000	180,000	190,000	800,000
Carbon disulfide	850	11,000	3,500	54,000
Chlorobenzene	340	1,100	1,300	5,600
Chloroform	0.32	340	1.4	410
1,1-Dichloroethane <sup>3</sup>	3.7	1,100	16	1,400
1,2-Dichloroethylene (cis) <sup>3</sup>	21	540	86	2,700
1,2-Dichloroethylene (trans) <sup>3</sup>	212	1,100	860	5,500
Ethylbenzene	6.4	16,000	25	78,000
2-Hexanone (Methyl butyl ketone)	420	370	1,300	1,800
Methylene chloride <sup>3</sup>	6.2	1,900	24	2,300
Styrene	9,700	19,000	35,000	81,000
Tetrachloroethene <sup>3</sup>	1.1	300	2.7	360
Toluene <sup>3</sup>	1,360	6,200	5,400	31,000
1,1,1-Trichloroethane <sup>3</sup>	1,740	15,000	7,300	77,000
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	1,600,000	NA	8,000,000
Trichloroethylene	1.1	630	6.0	760
Trichlorofluoromethane	760	16,000	3,100	80,000
Vinyl chloride <sup>3</sup>	0.03	23	0.15	28
Xylenes	570	110,000	2,400	550,000

Notes:

<sup>1</sup>All values obtained from the USEPA Regional Screening Levels (USEPA, 2015) unless otherwise indicated. Values for off-site resident reflect inhalation exposure only. Values for on-site commercial worker reflect exposure from soil ingestion, inhalation and dermal contact.

<sup>2</sup>Values obtained from ENVIRON (1999).

<sup>3</sup>Updated values obtained from DTSC (2015).

Yellow highlight indicates that the updated screening level is lower (more stringent) than the corresponding ENVIRON (1999) screening level.

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Table 3

Exposure Parameters Used to Calculate Soil Screening Levels for Construction Workers

Exposure Parameter	Value
Body weight (kg)	80
Exposure duration (years)	1
Averaging time (days)	
Non-carcinogenic chemicals	365
Carcinogenic chemicals	25,550
Exposure frequency (days/year)	250
Soil ingestion rate (mg/day)	330
Particulate emission factor (m <sup>3</sup> /kg)	1.00E+06
Skin surface area (cm <sup>2</sup> )	6,032
Soil adherence factor (mg/cm <sup>2</sup> )	0.8

Source: DTSC (2014).



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Table 4  
Soil Screening Levels for the On-Site Construction Worker  
Non-Volatile Chemicals

Chemical	Non-Cancer Toxicity Criteria <sup>1</sup>		Cancer Toxicity Criteria <sup>1</sup>		ABS <sub>so</sub> (unitless)	ABS <sub>u</sub> (unitless)	Non-Cancer Screening Level (mg/kg)	Cancer Screening Level (mg/kg)	Final (Lowest) Screening Level (mg/kg)
	RfD <sub>a</sub> (mg/kg-day)	RfC (mg/m <sup>3</sup> )	CSF <sub>a</sub> (mg/kg-day) <sup>-1</sup>	IUR (µg/m <sup>3</sup> ) <sup>-1</sup>					
Polycyclic Aromatic Hydrocarbons									
Acenaphthene	6.0E-02	NA	NA	NA	1	0.13	7.3E+03	NA	7.3E+03
Acenaphthylene	NA	NA	NA	NA	1	0.13	NA	NA	NA
Anthracene	3.0E-01	NA	NA	NA	1	0.13	3.7E+04	NA	3.7E+04
Benzo(a)anthracene	NA	NA	7.3E-01	1.1E-04	1	0.13	NA	1.2E+01	1.2E+01
Benzo(b)fluoranthene	NA	NA	NA	NA	1	0.13	NA	NA	NA
Benzo(a)pyrene	NA	NA	7.3E+00	1.1E-03	1	0.13	NA	1.2E+00	1.2E+00
Benzo(b)fluoranthene	NA	NA	7.3E-01	1.1E-04	1	0.13	NA	1.2E+01	1.2E+01
Benzo(k)fluoranthene <sup>2</sup>	NA	NA	1.2E+00	1.1E-04	1	0.13	NA	7.1E+00	7.1E+00
Chrysene <sup>2</sup>	NA	NA	1.2E-01	1.1E-05	1	0.13	NA	7.1E+01	7.1E+01
Dibenz(a,h)anthracene	NA	NA	7.3E+00	1.2E-03	1	0.13	NA	1.2E+00	1.2E+00
Fluoranthene	4.0E-02	NA	NA	NA	1	0.13	4.9E+03	NA	4.9E+03
Fluorene	4.0E-02	NA	NA	NA	1	0.13	4.9E+03	NA	4.9E+03
Indeno(1,2,3-cd)pyrene	NA	NA	7.3E-01	1.1E-04	1	0.13	NA	1.2E+01	1.2E+01
2-Methylnaphthalene	4.0E-03	NA	NA	NA	1	0.13	4.9E+02	NA	4.9E+02
Naphthalene	2.0E-02	3.0E-03	NA	3.4E-05	1	0.13	2.1E+03	9.0E+06	2.1E+03
Phenanthrene	NA	NA	NA	NA	1	0.13	NA	NA	NA
Pyrene	3.0E-02	NA	NA	NA	1	0.13	3.7E+03	NA	3.7E+03
Polychlorinated Biphenyls (as Aroclor 1254)									
	2.0E-05	NA	2.00E+00	5.70E-04	1	0.14	2.3E+00	4.1E+00	2.3E+00
Metals									
Antimony (as trioxide)	4.0E-04	2.0E-04	NC	NC	0.15	0.01	6.6E+01	NC	6.6E+01
Arsenic <sup>3</sup>									1.2E+01
Barium	2.0E-01	5.0E-04	NC	NC	0.07	0.01	2.0E+03	NC	2.0E+03
Beryllium <sup>2</sup>	2.0E-04	7.0E-06	NC	2.4E-03	0.007	0.01	2.9E+00	1.3E+05	2.9E+00
Cadmium <sup>2</sup>	6.3E-06	1.0E-05	NC	4.2E-03	0.025	0.001	1.4E+00	7.3E-04	1.4E+00
Chromium (trivalent) <sup>2</sup>	1.5E+00	NA	NC	NC	0.013	0.01	4.3E+04	NC	4.3E+04
Chromium (hexavalent) <sup>2</sup>	3.0E-03	1.0E-04	5.0E-01	1.5E-01	0.025	0.01	1.1E+02	4.8E+01	4.8E+01
Cobalt	3.0E-04	NC	NC	NC	1.00	0.01	2.0E+01	3.4E+04	2.0E+01
Copper	4.0E-02	NA	NC	NC	1.00	0.01	1.2E+04	NC	1.2E+04
Lead <sup>3</sup>									3.2E+02
Mercury <sup>2</sup> (as elemental)	1.6E-04	3.0E-05	NC	NC	1.00	0.01	3.6E+01	NC	3.6E+01
Molybdenum	5.0E-03	NA	NC	NC	1.00	0.01	1.5E+03	NC	1.5E+03
Nickel (as soluble salts) <sup>2</sup>	1.1E-02	1.4E-05	NC	2.6E-04	0.04	0.01	5.7E+01	1.2E+06	5.7E+01
Selenium	5.0E-03	2.0E-02	NC	NC	1.00	0.01	1.5E+03	NC	1.5E+03
Silver	5.0E-03	NA	NC	NC	0.04	0.01	3.8E+02	NC	3.8E+02
Thallium (as soluble salts)	1.0E-05	NA	NC	NC	1.00	0.01	3.1E+00	NC	3.1E+00
Vanadium <sup>2</sup>	5.0E-03	1.0E-04	NC	NC	0.03	0.01	1.7E+02	NC	1.7E+02
Zinc	3.0E-01	NA	NC	NC	1.00	0.01	9.3E+04	NC	9.3E+04

Notes:  
<sup>1</sup>Toxicity criteria obtained from DTSC (2015) first and USEPA (2015) if not available from DTSC (2015).  
<sup>2</sup>Toxicity criteria obtained from DTSC (2015).  
<sup>3</sup>See text.  
RfD<sub>a</sub> = Reference Dose for ingestion exposure, RfC = Reference Concentration for inhalation exposure, CSF<sub>a</sub> = Cancer Slope Factor for ingestion exposure to carcinogens, IUR = Inhalation Unit Risk for inhalation exposure to carcinogens  
ABS<sub>so</sub> = Gastrointestinal absorption efficiency. Obtained from USEPA (2015).  
ABS<sub>u</sub> = Dermal absorption efficiency. Obtained from USEPA (2015) (PAHs) and DTSC (2013) (metals).  
NC = Not carcinogenic.  
NA = Not available.

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Table 5  
Soil Screening Levels for the On-Site Construction Worker  
Volatile Chemicals

Chemical	Non-Cancer Toxicity Criteria <sup>1</sup>		Cancer Toxicity Criteria <sup>1</sup>		Volatilization Factor <sup>2</sup> (m <sup>2</sup> /kg)	Non-Cancer Screening Level (mg/kg)	Cancer Screening Level (mg/kg)	Final (Lowest) Screening Level (mg/kg)
	RfD <sub>a</sub> (mg/kg-day)	RfC (mg/m <sup>3</sup> )	CSF <sub>a</sub> (mg/kg-day) <sup>-1</sup>	IUR (μg/m <sup>3</sup> ) <sup>-1</sup>				
Acetone	9.0E-01	3.1E+01	NC	NC	1.4E+04	2.7E+05	NC	2.7E+05
Benzene <sup>3</sup>	4.0E-03	3.0E-03	1.0E-01	2.9E-05	3.5E+03	4.5E+01	2.5E+02	4.5E+01
2-Butanone (Methyl ethyl ketone)	6.0E-01	5.0E+00	NC	NC	1.2E+04	1.2E+05	NC	1.2E+05
Carbon disulfide	1.0E-01	7.0E-01	NC	NC	1.2E+03	3.3E+03	NC	3.3E+03
Chlorobenzene	2.0E-02	5.0E-02	NC	NC	6.5E+03	1.2E+03	NC	1.2E+03
Chloroform	1.0E-02	9.8E-02	3.1E-02	2.3E-05	2.6E+03	8.5E+02	7.8E+02	7.8E+02
1,1-Dichloroethane <sup>2</sup>	2.0E-01	8.0E-01	5.7E-03	1.6E-06	2.1E+03	6.7E+03	4.3E+03	4.3E+03
1,2-Dichloroethylene (cis) <sup>2</sup>	2.0E-03	8.0E-03	NC	NC	2.5E+03	7.8E+01	NC	7.8E+01
1,2-Dichloroethylene (trans) <sup>2</sup>	2.0E-02	8.0E-02	NC	NC	1.7E+03	5.5E+02	NC	5.5E+02
Ethylbenzene	1.0E-01	1.0E+00	1.1E-02	2.5E-06	5.7E+03	1.5E+04	2.2E+03	2.2E+03
2-Hexanone (Methyl butyl ketone)	5.0E-03	3.0E-02	NC	NC	NA	NA	NA	NA
Methylene chloride <sup>2</sup>	6.0E-03	4.0E-01	1.4E-02	1.0E-06	2.2E+03	1.4E+03	1.8E+03	1.4E+03
Styrene	2.0E-01	1.0E+00	NC	NC	9.4E+03	2.6E+04	NC	2.6E+04
Tetrachloroethene <sup>2</sup>	6.0E-03	3.5E-02	5.4E-01	5.9E-06	2.4E+03	3.1E+02	4.6E+01	4.6E+01
Toluene <sup>2</sup>	8.0E-02	3.0E-01	NC	NC	4.3E+03	4.7E+03	NC	4.7E+03
1,1,1-Trichloroethane <sup>2</sup>	2.0E+00	1.0E+00	NC	NC	1.7E+03	7.4E+03	NC	7.4E+03
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	5.0E-04	2.0E-03	4.6E-02	4.1E-06	2.2E+03	1.7E+01	5.4E+02	1.7E+01
Trichlorofluoromethane	3.0E-01	7.0E-01	NC	NC	1.0E+03	3.0E+03	NC	3.0E+03
Vinyl chloride <sup>2</sup>	3.0E-03	1.0E-01	2.7E-01	7.8E-05	9.6E+02	3.0E+02	9.0E+01	9.0E+01
Xylenes	2.0E-01	1.0E-01	NC	NC	6.5E+03	2.7E+03	NC	2.7E+03

Notes:  
<sup>1</sup>Toxicity criteria obtained from DTSC (2015) first and USEPA (2015) if not available from DTSC (2015).  
<sup>2</sup>Toxicity criteria obtained from DTSC (2015).  
<sup>3</sup>Volatilization factors obtained from USEPA (2015).  
RfD<sub>a</sub> = Reference Dose for ingestion exposure, RfC = Reference Concentration for inhalation exposure, CSF<sub>a</sub> = Cancer Slope Factor for ingestion exposure to carcinogens, IUR = Inhalation Unit Risk for inhalation exposure to carcinogens  
NC = Not carcinogenic.  
NA = Not available.



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Table 6

Ecorisk-Based Soil Screening Levels (Protection of Terrestrial Wildlife)  
Non-Volatile Chemicals

Chemical	Soil Screening Level (mg/kg)	Reference
<i>Polycyclic Aromatic Hydrocarbons</i>		
Acenaphthene	20	USEPA (2001)
Acenaphthylene	NA	
Anthracene	0.1	USEPA (2001)
Benz(a)anthracene	NA	
Benzo(g,h,i)perylene	NA	
Benzo(a)pyrene	0.1	USEPA (2001)
Benzo(b)fluoranthene	NA	
Benzo(k)fluoranthene	NA	
Chrysene	NA	
Dibenz(a,h)anthracene	NA	
Fluoranthene	0.1	USEPA (2001)
Fluorene	NA	
Indeno(1,2,3-cd)pyrene	NA	
2-Methylnaphthalene	NA	
Naphthalene	0.1	USEPA (2001)
Phenanthrene	0.1	USEPA (2001)
Pyrene	0.1	USEPA (2001)
<i>Metals</i>		
Antimony	0.27	USEPA (2005a)
Arsenic	43	USEPA (2005b)
Barium	2000	USEPA (2005c)
Beryllium	21	USEPA (2005d)
Cadmium	0.36	USEPA (2005e)
Chromium (trivalent)	26	USEPA (2005f)
Chromium (hexavalent)	130	USEPA (2005f)
Cobalt	120	USEPA (2005g)
Copper	28	USEPA(2007a)
Lead	11	USEPA (2005h)
Mercury	NA	
Molybdenum	NA	
Nickel	130	USEPA (2007b)
Selenium	0.63	USEPA (2007c)
Silver	4.2	USEPA (2006)
Thallium	NA	
Vanadium	7.8	USEPA (2005i)
Zinc	46	USEPA (2007d)
<i>Polychlorinated Biphenyls (as total)</i>		
	0.02	USEPA (2001)
<i>Petroleum Hydrocarbons</i>		
TPH-Gasoline	20	USEPA (2001)
TPH-Diesel	NA	
TPH-Motor Oil	NA	

Notes:  
NA = Not available.

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Table 7

Ecorisk-Based Soil Screening Levels (Protection of Terrestrial Wildlife)  
Volatile Chemicals

Chemical	Soil Screening Level (mg/kg)	Reference
Acetone	NA	
Benzene	0.05	USEPA (2001)
2-Butanone (Methyl ethyl ketone)	NA	
Carbon disulfide	NA	
Chlorobenzene	0.05	USEPA (2001)
Chloroform	0.001	USEPA (2001)
1,1-Dichloroethane	NA	
1,2-Dichloroethylene (cis)	NA	
1,2-Dichloroethylene (trans)	NA	
Ethylbenzene	0.05	USEPA (2001)
2-Hexanone (Methyl butyl ketone)	NA	
Methylene chloride	2	USEPA (2001)
Styrene	0.1	USEPA (2001)
Tetrachloroethene	0.01	USEPA (2001)
Toluene	0.05	USEPA (2001)
1,1,1-Trichloroethane	NA	
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	
Trichloroethylene	0.001	USEPA (2001)
Trichlorofluoromethane	NA	
Vinyl chloride	0.01	USEPA (2001)
Xylenes	0.05	USEPA (2001)

Notes:  
NA = Not available.



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Table 8

Human Health-Based Groundwater Screening Levels<sup>1</sup>

Chemical	Groundwater Screening Level (µg/L)	Basis	Reference
Acetone	14,000	USEPA RSL	USEPA (2015)
Benzene	1	CA MCL	CalEPA (2015)
2-Butanone (Methyl ethyl ketone)	5,600	USEPA RSL	USEPA (2015)
Carbon disulfide	810	USEPA RSL	USEPA (2015)
Chlorobenzene	70	CA MCL	CalEPA (2015)
Chloroform	0.22	USEPA RSL	USEPA (2015)
1,1-Dichloroethane	5	CA MCL	CalEPA (2015)
1,2-Dichloroethylene (cis)	6	CA MCL	CalEPA (2015)
1,2-Dichloroethylene (trans)	10	CA MCL	CalEPA (2015)
Ethylbenzene	300	CA MCL	CalEPA (2015)
2-Hexanone (Methyl butyl ketone)	38	USEPA RSL	USEPA (2015)
Methylene chloride	5	CA MCL	CalEPA (2015)
Styrene	100	CA MCL	CalEPA (2015)
Tetrachloroethene	5	CA MCL	CalEPA (2015)
Toluene	150	CA MCL	CalEPA (2015)
1,1,1-Trichloroethane	200	CA MCL	CalEPA (2015)
1,1,2-Trichloro-1,2,2-trifluoroethane	1,200	CA MCL	CalEPA (2015)
Trichloroethylene	5	CA MCL	CalEPA (2015)
Trichlorofluoromethane	150	CA MCL	CalEPA (2015)
Vinyl chloride	0.5	CA MCL	CalEPA (2015)
Xylenes	1,750	CA MCL	CalEPA (2015)

Notes:

<sup>1</sup>Based on drinking water ingestion.

USEPA RSL = USEPA Regional Screening Level for tapwater ingestion.

CA MCL = California Maximum Contaminant Level (drinking water standard).

NA = Not available.

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Table 9

Groundwater Screening Levels to Protect Indoor Workers from Vapor Intrusion

Chemical	Screening Level (µg/L) <sup>1</sup>
Acetone	NA
Benzene	270
2-Butanone (Methyl ethyl ketone)	200,000,000
Carbon disulfide	NA
Chlorobenzene	NA
Chloroform	1,700
1,1-Dichloroethane	NA
1,2-Dichloroethylene (cis)	26,000
1,2-Dichloroethylene (trans)	120,000
Ethylbenzene	3,100
2-Hexanone (Methyl butyl ketone)	NA
Methylene chloride	26,000
Styrene	NA
Tetrachloroethene	640
Toluene	NA
1,1,1-Trichloroethane	NA
1,1,2-Trichloro-1,2,2-trifluoroethane	NA
Trichloroethylene	1,300
Trichlorofluoromethane	NA
Vinyl chloride	18
Xylenes	NA

<sup>1</sup>Values are Environmental Screening Levels (ESLs) from SFBRWQCB (2013) for fine-coarse mix soil types, commercial/industrial land use.

NA = Not available.



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Table 10

Ecorisk-Based Groundwater Screening Levels (Protection of Aquatic Life)<sup>1</sup>

Chemical	Groundwater Screening Level <sup>2</sup> (µg/L)	
	Freshwater Habitat	Estuary Habitat
Acetone	1,500	1,500
Benzene	46	46
2-Butanone (Methyl ethyl ketone)	14,000	14,000
Carbon disulfide	NA	NA
Chlorobenzene	25	25
Chloroform	620	620
1,1-Dichloroethane	47	47
1,2-Dichloroethylene (cis)	590	590
1,2-Dichloroethylene (trans)	590	590
Ethylbenzene	290	43
2-Hexanone (Methyl butyl ketone)	NA	NA
Methylene chloride	2,200	2,200
Styrene	100	100
Tetrachloroethene	120	120
Toluene	130	130
1,1,1-Trichloroethane	62	62
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA
Trichloroethylene	360	360
Trichlorofluoromethane	NA	NA
Vinyl chloride	780	780
Xylenes	100	100

Notes:

<sup>1</sup>Groundwater screening levels assume groundwater daylight in either freshwater or estuarine wetlands.

<sup>2</sup>Values shown are Environmental Screening Levels (ESLs) from SFRWQCB (2013).

NA = Not available.

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Table 11

Comparison of Updated Soil Screening Levels to Maximum Soil Concentrations Reported in the  
June 2015 Phase II Environmental Site Assessment

Chemical	Maximum Concentration at Any Soil Depth <sup>2</sup> (mg/kg)	Screening Level Exceeded <sup>1</sup>			
		Off-Site (Nearby) Resident	On-Site Commercial Worker	Construction Worker	Ecorisk (Terrestrial Wildlife)
<i>Polycyclic Aromatic Hydrocarbons</i>					
Anthracene	0.14				X (0.1)
Benzo(a)pyrene	2.1		X (0.29)	X (1.2)	X (0.1)
Fluoranthene	0.72				X (0.1)
Naphthalene	0.74				X (0.1)
Phenanthrene	0.39				X (0.1)
Pyrene	0.9				X (0.1)
<i>Metals</i>					
Antimony	4.1				X (0.27)
Arsenic	13		X (12)	X (12)	
Cadmium	1.7			X (1.4)	X (0.36)
Chromium (as trivalent) <sup>3</sup>	1,800				X (26)
Cobalt	93			X (20)	
Copper	110				X (28)
Lead	1,500			X (320)	X (11)
Nickel	2,400		X (1,500)	X (57)	X (130)
Vanadium	50				X (7.8)
Zinc	420				X (46)
<i>Petroleum Hydrocarbons</i>					
TPH-Diesel	1,300		X (110)		
TPH-Motor oil	1,800		X (500)		

<sup>1</sup>Screening level shown in parenthesis.

<sup>2</sup>See text.

<sup>3</sup>Assumed to be trivalent chromium.



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**EXHIBIT 4**

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Table 12

Comparison of Updated Groundwater Screening Levels to Maximum Groundwater Concentrations Reported in the June 2015 Phase II Environmental Site Assessment

Chemical	Maximum Groundwater Concentration (µg/L)	Screening Level Exceeded <sup>1</sup>		
		Drinking Water Groundwater Screening Level	Vapor Intrusion - Commercial Worker	Ecorisk Screening Level (Protection of Aquatic Life)
Benzene	4.4	X (1)		

<sup>1</sup>Screening level shown in parenthesis.



O-MBA16S6

November 2, 2015

**Memo**

To: Patrick Soluri, Attorney at Law

From: Philip King, Ph.D.

Re: Urban Decay Analysis of Proposed Movement of Golden State Warriors from Oakland to San Francisco

Upon your request, I examined the reply to my July 13, 2015 memo prepared to analyze potential for urban decay stemming from the move of the Golden State Warriors (GSW) from Oracle Stadium in Oakland to a new stadium in San Francisco. Unfortunately, the consultants mischaracterized many of the arguments that I presented. This memo will provide my responses to ALH's comments in detail. Here are the key points:

- ALH argues that I do not provide a definition of urban decay. My discussion of the definition of urban decay was limited because the legal definition of urban decay is well-understood by now. ALH provides a definition of urban decay which is consistent with my understanding. The differences between my expert opinion and ALH's have nothing to do with the definition of urban decay, but its significance in this case. It is my professional opinion that the loss of spending and jobs will exacerbate urban decay in this area, which the City itself designated as "blighted."
- ALH conflates revenues and spending and argues that my analysis left out key revenue sources, in particular TV revenues. While it is true that we did not specifically mention TV revenues, our data (from Forbes) on the GSW spending would include *all* revenue sources including TV revenues.
- ALH argues that the move of the GSW from Oakland will not lead to a transfer of jobs. They cite the lower cost of living in the East Bay. However, an analysis of commuter patterns provided below indicates that, in fact, the percentage of workers who commute from the East Bay to San Francisco is relatively small and consistent with our analysis.
- ALH argues that another team will be attracted to the area and cites the City of Oakland's Coliseum Redevelopment Area. However, numerous articles in Bay Area newspapers and the professional sports media indicate that this plan has struggled to gain support from developers who would be needed to finance the project or the two major professional sports teams who use the adjacent Oakland Coliseum, the Oakland A's and the Oakland Raiders. Indeed the Oakland Raiders are one of three candidates widely touted to move (back) to Los Angeles, which has no NFL team.

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In more detail, here are my responses to the ALH memo.

- In it's memo ALH states that:

"Dr. King's memo does not include a definition of urban decay. Generally speaking, urban decay is characterized by physical deterioration to properties or structures that is so prevalent, substantial, and lasting a significant period of time that it impairs the proper utilization of the properties and structures, and the health, safety, and welfare of the surrounding community. The focus of CEQA review is on whether a project will result in impacts on the physical environment. CEQA directs the lead agency to consider economic effects, to the extent those effects have the potential to culminate in physical environmental effects (CEQA Guidelines, § 15131). Characteristics of physical deterioration contributing to urban decay include abandoned buildings, boarded doors and windows, parked trucks and long-term unauthorized use of the properties and parking lots, extensive or offensive graffiti painted on buildings, dumping of refuse or overturned dumpsters on properties, dead trees and shrubbery, and uncontrolled weed growth. This is the context of urban decay that ALH Economics deems relevant to the response herein."

I agree my memo did not spend a great deal of time defining urban decay since the legal literature here is reasonably clear. I accept ALH's definition.

- In their memo ALH states:

"Dr. King's analysis is based on the assumption that all Warrior's revenues derive from ticket sales to patrons living in the East Bay, San Francisco, and the Peninsula. However, there are numerous other revenue sources, such as merchandise sales and media revenues, and ALH Economics found that only 76% of ticket sales originate from the areas identified by Dr. King. Further, Dr. King's analysis of a generalized economic impact on Alameda County does not lead to the conclusion that urban decay will result in a specific location."

My analysis was based on an estimate of spending derived from Forbes magazine, which ALH did not dispute. (Since ALH has better access to this data I assume they would have disputed this figure if it were too high.)

The confusion that runs like a thread through the ALF report is as follows: they confuse the sources of spending at Warriors games with economic impact that this spending causes within Alameda County. They do this in two ways:

- First, the place of residence of those who attend Warriors games (whether they come from the East or West Bay) is totally irrelevant. Whether these fans are from Oakland or New York City, what matters is that whereas before

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cont.



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their money was being spent in Alameda County, this money is now being spent in San Francisco.

- Second, my report took the sources of Warriors' revenue as irrelevant, and focused instead upon the ways in which this revenue was spent by the organization. Thus, for the purposes of our report, whether that money came from ticket sales, TV contracts, or concession stands of various kinds was totally beside the point. What mattered to us was whether the money was going to local employees, players' salaries or reinvested within the organization.
- Further, there are, however, numerous ways in which the ALH report misrepresents these figures and the nature of IMPLAN analyses in general.
  - First, IMPLAN uses the same methodology as all U.S. government calculations for GDP, etc. in that the employment numbers represent the location of the jobs themselves and not the residence of the person who perform those jobs. Even if many of these employees will not have to relocate or find a new job, their job still moves from one county to another.<sup>1</sup>
  - Second, the employment numbers provided by IMPLAN to not directly translate into the full-time job estimates (FTE) provided in other EIRs. Within IMPLAN, each job within the professional sports/spectator industry is roughly equivalent to 85% of 1 FTE.<sup>2</sup>
  - Third, the employment numbers do NOT represent the number of people directly employed by the Warriors organization, but also include those employed by other companies (concession stands, parking attendants, etc.).<sup>3</sup>
  - Our original report generously assumed that 74% of the Warriors annual spending was non-local (or "leaked") in nature. While the ALH report criticized the arbitrary nature of these leakage estimates, a proper remedy of this point, again, works against the ALH's stated goal. The non-arbitrary approach which ALH seems to advocate would have us acknowledge that the leakage rates that are native to the professional sports/spectator industry are already built into the IMPLAN model. Such an analysis would estimate a much larger economic impact.<sup>4</sup>

<sup>1</sup> Contrary to what the ALH report suggests, only 3.14% of those employed within Alameda County reside within SF, while only 12.16% of those employed within SF commute from Alameda County.  
<http://www.vitalsigns.mtc.ca.gov/commute-patterns#chart-0>

<sup>2</sup> [https://implan.com/index.php?view=document&alias=4-536-fte-a-employment-compensation-conversion-table&category\\_slug=536&layout=default&option=com\\_docman&Itemid=1764](https://implan.com/index.php?view=document&alias=4-536-fte-a-employment-compensation-conversion-table&category_slug=536&layout=default&option=com_docman&Itemid=1764)

<sup>3</sup> Compare to the estimated 771 jobs that are provided by the A's.

[https://salsa.wiredforchange.com/o/5782/images/FinalStadiumReport\\_04.21.10.pdf](https://salsa.wiredforchange.com/o/5782/images/FinalStadiumReport_04.21.10.pdf)

<sup>4</sup> See <http://www.santaclara.org/pdf/49er-Stadium-Impact-Study.pdf> in which this same reasoning is applied to the 49er's new stadium.

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cont.

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- ALH argues that the move of the GSW from Oakland will not lead to a transfer of jobs. They cite the lower cost of living in the East Bay. The statistics they provide, however, only distract from other, more directly relevant data. The US Census Bureau keeps statistics on commuting within the Bay Area. Only 12.16% of people working in San Francisco commute from Alameda County, which is consistent with our analysis.<sup>5</sup>
- ALH argues that the departure of the Golden State Warriors is not an issue since the City of Oakland's Coliseum Redevelopment Area will bring in other sports teams. However, the local news media, as well as the sports media, have covered this issue extensively and it's clear that the City of Oakland, while enthusiastic about bringing in another sports team, is having difficulty finding a private developer to fund the project. This project is estimated by one source (cited below) to cost \$400 million.
  - Several new media articles within the last month indicate that developers are reluctant to invest money in the Oakland Coliseum Redevelopment Area. This RDA is particularly problematic since the Oakland Raiders have been widely mentioned in the media as possible candidates to move to their old home in Los Angeles, or elsewhere. The Raiders could also move to Levi's stadium in Santa Clara, where the 49ers play, though this idea is unpopular.
  - Here are two recent quotes:  

"Oakland's most recent stadium proposal — Mayor Jean Quan's Coliseum City retail-office-housing scheme — sank without a trace when neither the Raiders nor A's would climb aboard."<sup>6</sup>

"The Raiders share a clearly substandard facility with Major League Baseball's Oakland Athletics and, simply, there is no plan. A potential financing partner, Floyd Kephart, dropped out, leaving a \$400 million funding gap that neither Oakland city officials nor Alameda county officials can figure out how to fill. There still remains the remote possibility of the Raiders sharing Levi's Stadium with the 49ers, although both teams loathe that idea. The Raiders seem a certain candidate for relocation."<sup>7</sup>

<sup>5</sup> See <http://www.vitalsigns.mtc.ca.gov/commute-patterns#chart-0>

<sup>6</sup> See San Francisco Chronicle: "Oakland mayor trying to put together new stadium deal for Raiders By Matier & Ross, October 30, 2015 Updated: November 1, 2015 12:35am,  
<http://www.sfchronicle.com/bayarea/matier-ross/article/Oakland-mayor-trying-to-put-together-new-stadium-6602228.php>.

<sup>7</sup> See The Race for L.A. Heats Up, <http://mmqb.si.com/mmqb/2015/10/22/nfl-los-angeles-relocation-stadiums-chargers-rams-raiders>.

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cont.



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- Contrary to ALH's rosy analysis, the City of Oakland has struggled to find support for this plan.<sup>8</sup> Thus any conclusion that the Orcale Arena can find another sports team is speculation.

Consequently, in my professional opinion, ALH's responses fail to deal directly with my analysis. On the issue of other sports teams entering the market, the evidence as it stands today indicates that it's unlikely in the foreseeable future that another NBA team will locate to Oakland (and ALH provides no evidence that any team is interested). Further, the possibility of the Oakland Raiders moving would exacerbate the situation. While the City of Oakland is clearly eager to get a new NBA franchise, the media reports indicate that the City's efforts have not been fruitful and any discussion of future teams occupying that space is speculative.

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[LC-GEN-3]  
cont.

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<sup>8</sup> See also San Francisco Chronicle: "Oakland dumping Coliseum development: What's next for Raiders?," By Matier & Ross, September 19, 2015

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## EXHIBIT 5





Capital and Operating Cost Estimates for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (the Project) (please see notes)

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PRELIMINARY CAPITAL USES

Transit Investments

[4] New Light Rail Vehicles

Installation of (3) single crossovers

Conceptual Engineering Phase

Detail Design Phase

Construction Phase

Bus Substitution Cost

Total Installation of single crossovers

(Allocation to projects 70%)

Construct new Center Boarding platform 16.6 feet x 320 feet

Conceptual Engineering Phase

Detail Design Phase

Construction Phase

Bus Substitution Cost

Total UCF platform Center Platform

Power augments to idling "event" trains

Total Transit Investments

Total Transit Investments - Allocation to Project

Traffic/Signals Engineering Investments

CCTV Camera @ 5 locations

Variable Message Signs (VMT)

Traffic Signals (South Street and Terry Francois Boulevard, and 16th Street and Terry Francois Boulevard, and Illinois Street / Mt

Transportation Management Center Network Upgrades

Total Traffic/Signals Engineering Investments

Mariposa Street Restricting Study

Total Estimated Capital Uses

Total Estimated Capital Uses - Allocation to Project

PRELIMINARY CAPITAL SOURCES

In Lieu TDF (SFMTA)

General Fund Capital Sources (see Financial Feasibility Study)

Total Estimated Capital Sources

CAPITAL SOURCES LESS USES

CAPITAL SOURCES LESS USES ALLOCATION TO PROJECT

ESTIMATED COST	5-Year Plan					Total 5-Year Plan
	FY13-14 \$	FY14-15	FY15-16	FY16-17	FY17-18	
	1	2	3	4	5	
\$18,300,287	-	-	-	21,000,000	-	\$21,000,000
\$176,134	\$182,299	\$0	\$0	\$0	\$0	\$182,299
\$440,691	\$486,130	\$0	\$0	\$0	\$0	\$486,130
\$7,058,715	\$0	\$0	\$7,826,123	\$0	\$0	\$7,826,123
\$650,000	\$0	\$0	\$720,967	\$0	\$0	\$720,967
\$8,354,540	\$668,429	\$0	\$8,546,790	\$0	\$0	\$9,315,219
\$5,848,178	\$467,900	\$0	\$5,582,753	\$0	\$0	\$6,450,653
\$500,000	\$0	\$535,613	\$0	\$0	\$0	\$535,613
\$1,500,000	\$0	\$1,606,838	\$0	\$0	\$0	\$1,606,838
\$17,000,000	\$0	\$0	\$18,848,204	\$0	\$0	\$18,848,204
\$1,500,000	\$0	\$0	\$3,880,513	\$0	\$0	\$3,880,513
\$22,500,000	\$0	\$2,142,450	\$22,728,716	\$0	\$0	\$24,871,166
\$6,800,000	\$0	\$7,539,282	\$0	\$0	\$0	\$7,539,282
\$55,954,827	\$668,429	\$2,142,450	\$38,814,788	\$21,000,000	\$0	\$62,820,667
\$51,448,465	\$467,900	\$2,142,450	\$36,250,751	\$21,000,000	\$0	\$59,861,101
\$175,000	-	\$65,613	\$136,117	-	-	\$191,729
\$405,000	-	\$151,846	\$251,870	-	-	\$443,716
\$1,200,000	-	\$449,915	\$849,800	-	-	\$1,314,714
\$20,000	-	\$29,964	\$57,653	-	-	\$87,648
\$1,860,000	\$0	\$697,367	\$1,340,440	\$0	\$0	\$2,697,807
\$20,000	\$20,000	\$0	\$0	\$0	\$0	\$20,000
\$57,814,827	\$ 668,429	\$ 2,839,817	\$ 40,155,228	\$21,000,000	\$ 0	\$64,663,474
\$55,308,465	\$ 467,900	\$ 2,839,817	\$ 37,591,191	\$ 21,000,000	\$ 0	\$ 61,899,509
\$17,436,000	-	\$0	\$19,434,536	-	\$0	\$19,434,536
\$7,954,799	\$0	\$3,390,000	\$2,255,581	\$2,310,216	\$0	\$7,954,799
\$5,391,791	\$0	\$3,390,000	\$2,255,581	\$2,310,216	\$0	\$5,391,791
\$52,431,038	\$668,429	\$550,183	\$57,895,450	\$744,752	\$0	\$53,771,139
\$29,916,666	\$467,900	\$550,183	\$35,235,466	\$744,752	\$0	\$36,598,770

SFMTA

10/13/2015

Page 1



Capital and Operating Cost Estimates for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (the Project) (please see notes)

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PRELIMINARY OPERATING COSTS

Transit Operating Costs by Event Type

Annual Transit Costs: Playoff Basketball Games (16)

Annual Transit Costs: Basketball Games (43)

Annual Transit Costs: Concerts (30)

Annual Transit Costs: Convention, Theater, Shows & Other Sporting Events (131)

Total Transit Operating Costs (80 large events plus 131 other events/Year)

Enforcement Operating Costs by Event Type

Annual Enforcement Operating Costs: Playoff Basketball Games (16)

Annual Enforcement Operating Costs: Basketball Games (43)

Annual Enforcement Operating Costs: Concerts (30)

Annual Enforcement Operating Costs: Local Hospital Access Plan (52)

Annual Enforcement Operating Costs: Convention, Theater, Shows & Other Sporting Events (131)

Total Enforcement Operating Costs (80 large events, 52 LMAP and 131 other events/Year)

Mitigation Measure Cost

Additional PCDs for events 12,500 and over (MM TR-2a)

Additional PCDs during overlapping events (MM TR-11a)

Additional Strategies to Reduce Transportation Impacts of Overlapping Events (M-TR-11c)

Transit Demand Accommodation (22 Fillmore)

Total Mitigation Measure Operating Costs

Total Operating Cost

PRELIMINARY OPERATING SOURCES

Transit Sources Assumptions by Event Type

Annual Transit Fares: Basketball Games (16)

Annual Transit Fares: Concerts (30)

Annual Transit Fares: Convention, Theater, Shows & Other Sporting Events (131)

Total Annual Transit Fares

Special Event Parking Sources by Event Type

Annual Parking Revenues: Basketball Games (16)

Annual Parking Revenues: Concerts (30)

Annual Parking Revenues: Convention, Theater, Shows & Other Sporting Events (131)

Total Annual Incremental Parking Revenues

Other SFMTA Revenues

Total Other SFMTA Revenue (See Financial Feasibility Study)

General Fund Sources - Mission Bay Transportation Improvement Fund

Total General Fund Sources (See Financial Feasibility Study)

Total Operating Sources

OPERATING SOURCES AND LESS USES

ESTIMATED COST	5-Year Plan					Total 5-Year Plan
	FY13-14 \$	FY14-15	FY15-16	FY16-17	FY17-18	
	1	2	3	4	5	
\$536,670	-	-	-	\$307,920	\$637,395	
\$1,442,300	-	-	-	\$827,536	\$2,713,000	
\$654,000	-	-	-	\$375,240	\$776,747	
\$916,300	-	-	-	\$525,738	\$1,988,277	
\$5,545,270	\$0	\$0	\$0	\$2,036,424	\$4,215,417	1.47
\$34,941	-	-	-	\$192,176	\$397,805	
\$ 900,155	-	-	-	\$516,474	\$1,069,101	
\$ 628,015	-	-	-	\$365,331	\$745,885	
\$ 110,933	-	-	-	\$63,649	\$131,754	
\$ 918,794	-	-	-	\$527,168	\$1,091,239	
\$ 2,852,838	\$0	\$0	\$0	\$1,658,799	\$3,435,784	1.57
\$ 226,967	-	-	-	\$130,225	\$269,566	
\$ 11,476	-	-	-	\$6,584	\$13,630	
\$ 11,476	-	-	-	\$6,584	\$13,630	
\$220,000	-	-	-	\$126,228	\$261,291	
\$ 469,918	\$0	\$0	\$0	\$269,621	\$558,115	1.58
\$6,912,026	\$0	\$0	\$0	\$3,965,854	\$8,209,318	
\$396,947	-	-	-	\$221,223	\$454,612	
\$148,800	-	-	-	\$82,928	\$170,417	
\$332,800	-	-	-	\$179,920	\$359,651	
\$868,547	-	\$0	\$0	\$484,050	\$994,723	1.62
\$411,037	-	-	-	\$226,075	\$470,750	
\$146,243	-	-	-	\$87,076	\$178,941	
\$337,067	-	-	-	\$187,851	\$386,034	
\$904,347	-	\$0	\$0	\$504,002	\$1,036,724	1.62
\$ 2,981,000	\$0	\$0	\$0	\$1,379,142	\$3,405,761	
\$2,158,132	\$0	\$0	\$0	\$1,598,660	\$ 2,773,110	7.40
\$4,912,026	\$0	\$0	\$0	\$3,965,854	\$8,209,318	
\$0	\$0	\$0	\$0	\$0	\$0	

SFMTA

10/13/2015

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## **EXHIBIT 6**

O-MBA16S6

### Warriors Stadium Economics: Uncertainty and Alternatives

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November 2, 2015



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## Executive Summary

In order for the Golden State Warriors (GSW) to move to San Francisco, the City must make significant infrastructure investments in transit and commit to providing over \$6 million in support each year that the new arena operates. Although estimates of the costs to the City and estimates of City revenues exist, a cash flow analysis of this project has not been produced. Nor has the project been subject to a comparison with plausible alternatives. With a project of this magnitude and with the significant external costs imposed on San Francisco, it is deserving of such an analysis.

This report provides both a cash flow analysis of the arena development and a comparison with a plausible alternative. It also provides a discussion of some of the assumed revenues associated with the project. In particular, the assumptions regarding hotel/motel tax revenues and parking taxes are optimistic. The reality could be millions of dollars less than expected.

Although the cash flow analysis suggests that the project will turn a surplus of revenue in the fourth year of arena operations, a comparison with an alternative development suggests that from a financial perspective the City could do much better. If a biotech facility were constructed in place of the arena, it is possible that City revenues over the course of 22 years (two years of construction and 20 years of operation) could be more than \$39.9 million higher in net present discounted value terms, or \$1.8 million per year over 22 years. This comparison is with a conservative investment. With a more aggressive development option, the net present discounted value of revenues could be as much as \$150 million higher, or nearly \$7 million per year.

It is worth noting that the effective subsidy provided by the City of San Francisco to provide transit infrastructure and traffic mediation amounts to roughly \$150 million over the same 22 years, again in present discounted value terms. Were this subsidy not necessary, the Warriors development project would have a revenue impact to the City comparable to that of the more aggressive development option. Unfortunately, the Warriors development project requires the extensive subsidy while a biotechnology center would not. The biotechnology center, whether using conservative or aggressive assumptions, provides greater net revenues to the City of San Francisco than does the development including the Arena, by between \$1.8 and \$7 million per year.

These figures can be thought of as the amount that San Franciscans are paying to bring the Warriors to town. It is the amount of revenues that the City would forgo with the GSW project, relative to a plausible alternative. This is not to say that the project is a bad idea, but merely to point out what is being given up in order to accommodate the Warriors' move.

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## Key Findings

1. A cash flow analysis of the arena through the first twenty years of operation suggests net revenues for San Francisco of \$96 million. This is net of City expenses of approximately \$150 million during this time for transit and traffic mitigation.
2. This \$150 million of City spending in support of the Arena represents an implicit subsidy to the project. The City is funding transit infrastructure and the mitigation of traffic and transportation issues related to the functioning of the arena.
3. Although the Arena generates significant revenues for San Francisco, the City's costs will exceed its revenues from the development for at least the first three years of Arena operation, putting the taxpayers on the hook for the difference.
4. There are elements of the estimates of City revenues that are filled with uncertainty. In particular, the hotel/motel and parking revenues are highly speculative. This uncertainty may imply a broader burden for City taxpayers.
5. If hotel/motel revenues are overstated by half, which is possible, that would reduce City revenues by \$13.2 million in the first 20 years of Arena operation.
6. If an alternative development, one suited to biotechnology, were pursued, the City's net revenues would be nearly \$40 million higher and possibly as much as \$150 million higher over 22 years, or \$7 million per year.
7. An alternative development would have considerably larger economic impacts for the rest of the San Francisco Economy than would an arena, and would generate significantly more jobs, more than 2,000 on-site. Oracle Arena currently generates just 494 jobs.
8. An alternative development would generate as much as \$1 billion in direct economic activity on-site and perhaps as much as an additional \$1 billion in ancillary benefits to the broader San Francisco economy.
9. Forgoing the biotechnology development and pursuing the Arena reduces net revenues to the City of San Francisco by \$2 to \$7 million per year.

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## 1: Introduction

In 2017, the Golden State Warriors are expected to begin playing in San Francisco. Although this is an exciting development for the City of San Francisco, the economics of the Warriors presence in the City are unclear. There are likely to be significant revenue benefits for the City, but welcoming the Warriors will also involve significant infrastructure investments and ongoing expenses for the City and County of San Francisco. The net effects of these revenues and costs have not been adequately addressed.<sup>1</sup>

It is not clear whether San Francisco is importing a lucrative asset or a financial burden; that is, it is not clear whether the revenues associated with the Warriors play in San Francisco exceed the considerable upfront investments that the City must make. It is also an open question as to what exactly the City might be giving up in order to host the Warriors. The 12-acre parcel on which the arena is to be built is a valuable piece of real estate. In 2010, Salesforce paid \$278 million for a 14-acre site that includes the property in question. The property, located as it is across the street from UCSF and near a variety of biotech companies, seems a likely candidate for a biotech friendly building.<sup>2</sup> Were this to happen, it would yield significant benefits for the City. Whether or not these financial benefits exceed those associated with the Warriors is the subject of this report.

The report proceeds to review the costs and benefits associated with the Warriors, as they have been made public. This is followed by an estimate of the likely benefits of a biotech development occupying the same space. The benefits of the GSW plan are then examined from a perspective of robustness, whether or not they are likely to come to pass.

This report provides a cash flow analysis of the GSW project and compares that analysis with an alternative development that includes a biotechnology-oriented commercial structure in place of the arena. The GSW project is cash flow positive, but not until at least the fourth year of operations. Relative to the alternative development, even after 20 years of operating, the GSW project falls short in terms of net government revenues by approximately \$39.9 million, or \$1.8 million per year over 22 years. Alternative developments, with more aggressive assumptions, though still plausible, suggest that City revenues could increase by as much as \$151.6 million after 22 years, or \$6.9 million per year, without the need for heavy subsidization on the part of the City in the early years. From a purely financial perspective, the GSW project is a significant drain on City revenues relative to what alternative developments might yield.<sup>3</sup>

<sup>1</sup>Accepting the team also results in a significant revenue hole for the City of Oakland in that most events that currently take place at Oracle Arena are projected to move to the new arena.

<sup>2</sup>Its neighbors would include UCSF, Celgene Corporation, National Multiple Sclerosis Society, venBio, Nurix, Clovis Oncology, FibroGen, and Illumina, among others.

<sup>3</sup>The methodology used in this report is comparable to the methods and assumptions used by EPS in producing its fiscal impact analysis of the GSW arena. The Appendix provides a set of tables that indicate where common assumptions are used.

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## 2: Benefits and Costs of Hosting the Warriors

### — Benefits/Revenues

As with any economic activity, there are certainly financial benefits for the City of San Francisco associated with hosting the Warriors. A report has been produced for the City of San Francisco that provides a fiscal analysis of the GSW project.<sup>4</sup> These benefits are derived from one-time revenues from the purchase of the land and arena construction and ongoing benefits associated with the events that the stadium hosts. The ongoing benefits also include revenues from commercial and retail activity built into the project, as well as parking revenues both on-site and off-site and off-site hotel and motel taxes. Table 1 provides a summary of an estimate of those benefits. Annually, stadium, retail, and office operations associated with the development are estimated to provide just over \$14.1 million in revenues to the City of San Francisco.

**Table 1. Summary of San Francisco Revenues from Ongoing Stadium Operations**  
(Thousands of 2014 dollars)

Annual Project-Generated Revenues	General Fund Revenues	Dedicated and Restricted Accounts	All Accounts
Revenues From on-Site Businesses	\$9,626 (84%)	\$1,883 (73%)	\$11,509 (82%)
Revenues From off-Site Hotels and Parking	\$1,887 (16%)	\$714 (27%)	\$2,601 (18%)
<b>Total Annual Project-Generated Revenues</b>	<b>\$11,513 (100%)</b>	<b>\$2,597 (100%)</b>	<b>\$14,110 (100%)</b>

Source: EPS and Keyser Marston Associates

Of these \$14.1 million in revenues, \$11.5 million are associated with the arena and on-site businesses. Although the majority of these revenues accrue to the general fund (\$9.6 million), nearly \$2 million goes directly to dedicated and restricted accounts. At the same time, nearly \$2.6 million are estimated to be from off-site sources, \$714 thousand of which are destined for dedicated and restricted accounts.

Table 2 provides estimates of detailed categories of revenues associated with ongoing economic activity once the development is completed. The largest categories of revenue include the stadium admission tax (\$4.3 million), gross receipts taxes (\$2.5 million) property taxes (\$2.5 million, including both general fund and MTA revenues), hotel/motel or transient occupancy taxes (\$1.7 million), and parking taxes (\$2.4 million). These five categories account for the vast majority of revenues associated with the development.

As mentioned, there will also be one-time revenues associated with the construction of the arena and the accompanying office and retail space (Table 3). These benefits amount to just over \$27.6 million, the vast majority of which is associated with the TIDF, or Transportation Impact Development

<sup>4</sup>Economic Planning Systems, *San Francisco Multi-Purpose Venue Project - Fiscal Impact Analysis: Revenues*, 9/25/15. (EPS)

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**Table 2. Details of San Francisco Revenues from Ongoing Stadium Operations**  
(2014 dollars)

Item	Amount
<b>Annual General Revenue</b>	
Property Tax (General Fund)	\$912,000
Property Tax in Lieu of VLF	\$868,000
Sales Tax	\$521,000
Hotel/Motel Tax (General Fund)	\$1,667,000
Parking Tax	\$482,000
Stadium Admission Tax	\$4,336,000
<b>Gross Receipts Tax</b>	
On-site	\$2,431,000
Off-site	\$42,000
Utility User Tax	\$254,000
Subtotal	\$11,513,000
<b>Annual Other Dedicated and Restricted Revenue</b>	
Special Fund Property Taxes (Children's, Library, and Open Space)	\$148,000
Public Safety Sales Tax	\$260,000
San Francisco County Transportation Authority Sales Tax	\$260,000
MTA Parking Tax	\$1,929,000
Subtotal	\$2,597,000
<b>Total Ongoing Revenues</b>	<b>\$14,110,000</b>

Source: EPS, 9/25/15, Table 1

Fee.<sup>5</sup> Another significant source of one-time revenue comes in the form of a Property Transfer Tax, \$4.2 million. Sales taxes and gross receipts taxes collected during construction add another \$5.4 million.

<sup>5</sup>[http://www.sf-planning.org/ftp/files/legislative\\_changes/new\\_code\\_summaries/120523\\_TIDF\\_Transportation\\_Impact\\_Development\\_Fee\\_Update.pdf](http://www.sf-planning.org/ftp/files/legislative_changes/new_code_summaries/120523_TIDF_Transportation_Impact_Development_Fee_Update.pdf) Medical and Health Services, and Retail/Entertainment economic activity categories was increased to \$13.30 per square foot, except that the rate for museums, a subcategory of CIE, are \$11.05 per square foot, a reduction from the current amount. The rate for the Management, Information and Professional Services (MIPS) and Visitor Services economic activity categories was increased to \$12.64 per square foot, and the rate for the Production/Distribution/Repair (PDR) category was reduced to \$6.80 per square foot.

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**Table 3. Summary of One-Time Revenues from Stadium Construction (2014 dollars)**

Item	Difference
<b>City Fees</b> (per gross building sq. ft.)	
Child Care	\$662,000
Transit Impact Development Fee	\$17,436,000
<b>Other One-Time Revenues</b>	
Sales Taxes During Construction	\$2,355,000
Gross Receipts Tax During Construction	\$2,953,000
Property Transfer Tax from Initial Land Sale	\$4,200,000
<b>Total One-Time Revenues</b>	\$27,605,000

Source: EPS, 9/25/15, Table 2. Revised by Marin Economic Consulting to reflect changes in Table A-6 of the EPS report.

### — Costs

As with the benefits, there are also one-time and ongoing costs. The one-time costs are primarily those associated with enhancing transportation infrastructure and amount to \$55.3 million.<sup>6</sup> These costs include Transit Investments (the purchase of light rail vehicles), the installation of crossovers, the construction of a new center boarding platform, power augments to idling event trains, traffic/signals engineering investments, and a Mariposa Street restriping study.

These expenses are spread out over a four-year period, with the vast majority of expenses occurring in the 2016-17 MTA fiscal year. A major expenditure on light rail vehicles is slated to take place in the 2017-18 FY, when the Event Center begins operating. The costs to MTA are heavily loaded in the early years of the project, before ongoing revenues have begun. Estimated one-time revenues will be available during this time to cover expenses, but they will fall short of the total by approximately \$30.2 million.<sup>7</sup> This difference will be covered by contributions from San Francisco's General Fund, whether all at once or through the financing of these expenditures that are net of revenues.

Table 4 provides the details of the City's estimates of ongoing expenses related to the operation of the Event Center. As of early October, estimated annual net ongoing costs associated with operations at the Event Center amount to \$6.2 million.<sup>8</sup> The vast majority, \$5.1 million, are associated transit costs. It is worth noting that this estimate has decreased by \$0.4 million between May and

<sup>6</sup>One-time costs are from SFMTA, **Capital and Operating Cost Estimates for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32**, 10/6/2015. Estimates are in 2014 dollars.

<sup>7</sup>This figure is the difference between \$57.8 million, the total estimated capital uses estimate (not just that allocated to the project), and the total one-time revenues from Table 3.

<sup>8</sup>Ibid. The word "net" is included because the City has estimated revenues from fares and parking from riders going to events at the arena. These revenues amount to approximately \$1.8 million, split roughly evenly between the two sources.

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October of this year. Other expenses are reported as they were presented in May, including nearly \$1 million in additional policing, and \$200 thousand in expenses incurred by DPW.

**Table 4. Ongoing Costs of the Arena (millions of 2014 dollars)**

Agency	May 18 Estimates	October 6 Revisions
SFMTA	\$5.5	\$5.1
SFPD	\$0.9	
DPW	\$0.2	
<b>Total</b>	\$6.6	\$6.2

Source: Golden State Warriors Arena: Event Management  
OCH Commission Presentation, May 18, 2015,  
and MTA, October 6, 2015.

### — Net Benefits

The project comes with considerable costs and benefits. Both upfront net costs and ongoing net revenues are considerable. It is our view that the original EPS report was incomplete in not considering the implications of the project over time. It failed to provide a comparison of overall costs and benefits associated with the GSW project. The reviewer, Keyser Marston Associates, appeared to agree with the EPS approach, saying that a "cash flow approach is appropriate to evaluate a multi-phase project, which does not apply to this project." We respectfully disagree. There are two stages to this project: first, the one-time infrastructure investments and revenue implications of construction and parcel purchase, and second, the ongoing costs and revenues. The project's benefits to the City come inherently in two stages. If both stages yielded a net benefit, the need for a cash flow approach would not be nearly as acute. As the first stage is significantly negative, the overall net benefits must be evaluated over time in order to properly evaluate the project.

This has not been publicly done. Here, we consider a 20-year period following the construction of the Event Center. Given that many of these revenues accrue many years in the future, it is necessary to discount them to today's dollars. The bottom line is the present discounted value of the net stream of revenues to the City of San Francisco.

Assumptions crucial to the present value discount calculation:

1. Discount Rate: 4.0%
2. Rate of inflation: 2.5% (2% for property taxes, as per Proposition 13)

Table 5 provides an estimate of the present discounted value of net revenues to the City of San Francisco, using estimates from the EPS report of September 25, 2015 and from documents from the City of San Francisco. Once the facility has been operating for 20 years, net revenues are ex-

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pected to be on the order of \$95.7 million, or approximately \$4.3 million per year over a 22-year period including two years of construction and 20 years of operation. This estimate includes the upfront expenses incurred by the City as well as the ongoing expenses associated with event traffic mitigation.

**Table 5. Net Benefits of GSW Event Center Project over 22 years (Millions of Present Discounted 2014 dollars)**

	Benefits	Costs	Net Benefits
One-Time	\$27.6	\$55.3	-\$27.7
Ongoing	\$221.4	\$98.0	\$123.4
<b>Total</b>	<b>\$249.1</b>	<b>\$153.3</b>	<b>\$95.7</b>

Source: Calculations by Marin Economic Consulting.

The project pencils out as estimated. This calculus, however, begs two important questions:

1. This is a 12-acre plot of land in the middle of a biotechnology hub. Are there better uses for this land from a revenue perspective?
2. Estimating the costs associated with event management is a more certain endeavor than estimating the benefits. How certain is it that the benefits will materialize?

For a project of this magnitude, it is vitally important to evaluate the potential for plausible alternatives to provide more benefits than the project in question. It is also important to consider robustness tests for the revenues in question. Neither of these issues has been publicly addressed. This report will present plausible revenues associated with an alternative development, a space designed with biotech in mind, and will discuss weak points in the revenue estimates presented above.

### 3: On the Economics of Biotech as an Alternative

When evaluating the benefits of an economic endeavor, an exploration of alternatives is vital to understanding the full implications of an investment. Suppose that instead of building a 750,000-square-foot arena, the amount of commercial space on the property were doubled. In this section, we consider such an investment. In this exercise, we follow as closely as possible the assumptions contained in the EPS estimate of revenues associated with the GSW project.

Important assumptions associated with this analysis include:

1. Instead of a 750,000-square-foot arena, a commercial facility is constructed that provides 522,000 square feet of space. This constitutes an exact doubling of the commercial space in the GSW plan. This alternative development is otherwise comparable to the Warriors plan, including the original commercial, retail, and parking structures.

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2. The space is designed with biotechnology in mind, which brings with it significant laboratory space. As such, it has a relatively high amount of space per worker associated with it: 250 square feet per employee.<sup>9</sup>
3. The transaction price for the land is unchanged at \$172.5 million.<sup>10</sup>
4. It is assumed that just two-thirds of the biotech revenues generated onsite are subject to gross receipts taxation in San Francisco.<sup>11</sup>
5. It is also assumed that a commercial facility would have ancillary benefits in terms of indirect and induced economic activity in San Francisco. Consistent with the EPS report, it is assumed that 90% of the ancillary output generated is subject to the Gross Receipts Tax.<sup>12</sup>

With the addition of these assumptions, an exercise analogous to that undertaken by EPS is performed for the new development. The new development includes the same retail revenues and costs, the same parking revenues, and essentially double the revenues associated with commercial development. Doubling the office space and maintaining other assets leads to an assessed value of at least \$605.5 million. This is considerably less than the project's assessed value with an arena.

Support for the notion that this construction is feasible comes not only from the 750,000-square-foot arena that the buildings will be replacing, but also from a similar planned development. UCSF was planning to build 500,000 square feet on four acres of blocks 33-34, right next to the site.<sup>13</sup> A new building of the size being considered is clearly feasible on the space currently to be occupied by the arena.

Table 5 presents a comparison of the one-time revenues and expenditures associated with the Event Center versus doubling the commercial space on the 12-acre property. While the Event Center brings with it a need for considerable infrastructure to accommodate the development, it is not clear that a doubling of the commercial space does. Accordingly, the Event Center brings with it a net upfront cost of \$37.5 million, relative to a commercial facility in place of the Center.

<sup>9</sup>This is an extremely conservative assumption. Some estimates suggest that a ratio of 150 to 11 is possible. This would considerably increase employment and hence output at the site, increasing the resulting income to both City residents and City coffers.

<sup>10</sup>The actual transaction price has been announced as \$150 million. San Francisco Times, **Warriors buy Mission Bay arena site from Salesforce**, 10/13/2015. In this analysis, the transaction price is kept at \$172.5 million to maintain comparability with the original EPS study. The change in sales price does have an effect on revenue estimates, but the effect is the same for both the Warriors plan and for the alternative, so it does not affect comparisons between the two.

<sup>11</sup>There are several avenues through which revenues may be exempt from gross receipts taxes in San Francisco. This analysis is extremely conservative in assuming that this is more likely the case for biotechnology firms (perhaps because of significant revenues accruing through pass-through companies) than for firms in other industries.

<sup>12</sup>Estimates of these benefits are derived from the 2013 San Francisco County model of IMPLAN. It should be noted that the EPS report does not provide estimates of the ancillary effects of the commercial aspect of the current project. This report similarly omits those benefits for the existing commercial development, but does include them for the commercial property that could be built in place of the stadium. These ancillary benefits are also reduced by one-half to provide a conservative estimate of the development's contribution to net revenues.

<sup>13</sup>UCSF, **Salesforce in talks for S.F. Mission Bay land deal**, SFGate, March 15, 2014.

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**Table 5. Summary of One-Time Revenues from Development**  
(Thousands of 2014 Dollars)

Category	Biotech	GSW Arena	Difference
Property Transfer Tax	4,200	4,200	0
City Fees - TIDF	10,902	17,436	-6,534
- Child Care	1,263	662	601
Construction			
- Sales Taxes	1,617	2,354	-737
- Gross Receipts Taxes	2,028	2,953	-925
<b>Total</b>	<b>20,010</b>	<b>27,605</b>	<b>-7,595</b>

**One-Time Expenses Associated with Development**

Infrastructure Improvements	10,901	55,308	-44,407
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**Net One-Time Revenues Associated with Development**

Immediate Net Revenue Impact	9,108	-28,410	37,518
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Source: EPS Report (9/25/15) and calculations by Marin Economic Consulting.

Although capital expenditures related to the Event Center are significantly higher than the revenues brought in through the TIDF, such is not expected to be the case for additional commercial space. The TIDF was put in place with developments such as this alternative in mind. Therefore, the transit costs associated with the development are better approximated using the TIDF taxation formula. The TIDF collected from the hypothetical alternative development (including the commercial, retail and parking in the GSW project) will serve as our estimate of related transit costs, \$10,901.

In the analysis above, the sales price for the property on which the event center and accompanying commercial and retail structures will be built is the same as in the EPS report: \$172,546,000. Property transfer tax would result regardless of the purchaser and the end use, but conceivably at a higher price. Salesforce originally paid \$278 million dollars for 14 acres (including the space in question) in 2010. The current sales price is \$172.5 million for 12 acres (actual is \$150 million). The plot of land in question represents the majority of the plot originally purchased by Salesforce, and is the largest single contiguous piece. Property values have also increased substantially since the original purchase by Salesforce.<sup>14</sup> It seems likely then that the value of the land would have increased significantly over the last five years as San Francisco is currently starved for commercial real estate. In the end, the price that the Warriors have paid for the land is surprisingly low. It represents the bulk of a property that was valued at \$278 million in 2010 and market values have only increased in the intervening years. Therefore, the actual market value of the land may well be higher than the price the Warriors have been offered and have paid, with correspondingly higher transfer taxes resulting from some alternative development.

<sup>14</sup> [Salesforce.com Is Said to Plan Sale of San Francisco Land](#), Bloomberg Business, March 11, 2014.

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Table 6 provides an analysis of the annual City revenues and expenses that can be attributed to each of the projects.<sup>15</sup> The first column is for the alternative development which targets the biotechnology industry. The second column reflects estimates regarding the current Golden State Warriors project, and the final column presents the difference in expected revenue between the two.

**Table 6. Summary of Annual Revenues and Expenses (in Thousands of 2014 Dollars)**

Category	Biotech	GSW Arena	Difference
<b>Annual Direct General Revenue</b>			
Property Tax (General Fund)	\$603	\$912	-\$309
Property Tax in Lieu of VLF	\$570	\$868	-\$298
Sales Tax	\$253	\$521	-\$268
Hotel/Motel Tax (General Fund)	\$0	\$1,667	-\$1,667
Parking Tax	\$243	\$482	-\$239
Stadium Admission Tax	\$0	\$4,336	-\$4,336
Gross Receipts Tax			
On-site	\$4,078	\$2,431	\$1,647
Off-site	\$0	\$42	-\$42
Utility User Tax	\$249	\$254	-\$5
<b>Subtotal</b>	<b>\$5,996</b>	<b>\$11,513</b>	<b>-\$5,517</b>
<b>Annual Other Dedicated and Restricted Direct Revenue</b>			
Special Fund Property Taxes (Children's, Library, and Open Space)	\$98	\$148	-\$50
Public Safety Sales Tax	\$127	\$260	-\$133
San Francisco County Transportation Authority Sales Tax	\$127	\$260	-\$133
MTA Parking Tax	\$971	\$1,929	-\$958
<b>Subtotal</b>	<b>\$1,322</b>	<b>\$2,597</b>	<b>-\$1,275</b>
<b>Total Revenues</b>	<b>\$7,318</b>	<b>\$14,110</b>	<b>-\$6,792</b>
<b>Annual Development-Related Expenses</b>			
SFMTA	\$0	\$5,100	-\$5,100
SFPD	\$0	\$900	-\$900
DPW	\$0	\$200	-\$200
<b>Total Expenses</b>	<b>\$0</b>	<b>\$6,200</b>	<b>-\$6,200</b>
<b>Net Annual Revenues</b>	<b>\$7,318</b>	<b>\$7,910</b>	<b>-\$592</b>
<b>Ancillary Benefits Associated with Each Project</b>			
Gross Receipts Tax	\$754	\$0	\$754
<b>Total Annual Net Revenue Expectation</b>	<b>\$8,071</b>	<b>\$7,910</b>	<b>\$162</b>

Source: EPS Report and calculations by Marin Economic Consulting.

In most categories, the annual revenues are greater for the Event Center than for a development with additional commercial space. The exception is in the Gross Receipts Taxes, where a biotech firm occupies the additional commercial space. Taken as a whole, annual revenues from a purely

<sup>15</sup> This alternative is chosen because it will allow the use of most of the EPS parameters and assumptions in producing annual revenues for the alternative project. See the Appendix for a comparison of calculations between this project and the EPS report.



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commercial development are \$6.8 million less than for the project under consideration. Once the expenses related to the activities at the Event Center are taken into consideration, annual net revenues are nearly identical. However, expanding the commercial element of the development has considerable ancillary benefits. Most economic functions both make purchases from the broader economy and also compensate workers, who then in turn make purchases from the broader economy. The gross receipts taxes associated with output in the San Francisco economy that is related to activities in the additional commercial space are estimated to be \$754,000 per year.<sup>16</sup> Once these benefits have been considered, the commercial development results in \$162,000 more in revenues annually than would the arena (last line of Table 6). From a net revenue perspective, a commercial development dominates the Event Center.

As discussed above, merely calculating the one-time costs and an estimate of the ongoing revenue is insufficient. Were it sufficient, a commercial project focused on biotech would clearly dominate the current project. Table 7 provides an evaluation of the 22-year net benefits of an alternative development with space devoted to biotechnology comparable to the evaluation for the current project.

**Table 7. Net Benefits of Alternative Developments after 22 Years**  
(Millions of Present Discounted 2014 Dollars)

	Biotechnology		Net Benefits		
	Benefits	Costs	Biotech	GSW	Difference
One-Time	\$20.0	\$10.9	\$9.1	-\$27.7	\$36.8
Ongoing	\$126.5	\$0.0	\$126.5	\$123.4	\$3.1
<b>Total</b>	<b>\$146.5</b>	<b>\$10.9</b>	<b>\$135.6</b>	<b>\$95.7</b>	<b>\$39.9</b>

Source: Calculations by Marin Economic Consulting

According to these calculations, an alternative development would provide an extra \$39.9 million in revenues for the City of San Francisco (as in Table 7). Net present discounted revenues for the project with an Event Center are \$95.7 million, while a project with commercial space devoted to attracting biotechnology firms has a discounted value of net revenues expected to be \$135.6 million, a difference of \$39.9 million dollars, or an additional \$1.8 million each year on average over the 22 years.

From a cash flow perspective, there is a deep hole early on with the Event Center. The first three columns of Table 8 present annual present discounted flows of revenues into San Francisco City coffers. The final three columns provide a cash flow, or cumulative contribution to City coffers. Several things are immediately apparent from the table:

1. The Event Center puts an enormous hole in the City's budget in the first year (row 1, column 4).

<sup>16</sup>This is half of what is implied by IMPLAN in order to maintain the conservative nature of these estimates.

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2. Substituting a commercial development is cash flow positive in the first year (row 3, column 5).
3. It will take four years of operation of the Event Center to dig the City out of the hole (column 6).
4. Although the gap in annual discounted net revenue closes over time, it remains significant even in year 20 (last row, column 4).
5. In year 20 of Event Center operations, there remains a surplus of revenue in the amount of \$39.9 million for the biotechnology development (last row, last column), which continues to grow in subsequent years.

A final issue that differentiates a biotechnology-centric development over an arena is one of economic impact. It is clear from the economics literature that sports stadiums and arenas provide little economic boost to the local economy. At the same time, it is clear that these facilities are responsible for generating some local economic activity. The failure to add to a region's economy is because they tend to displace other entertainment purchases from the broader economy rather than to stimulate new spending. An individual may go to a basketball game instead of to a play, opera, symphony, or rock concert. These facilities are therefore not additive to the economy.

Nonetheless, it has been estimated that economic activity associated with Oracle Arena accounts for \$44.9 million in economic activity and 494 jobs in Alameda County.<sup>17</sup> It seems likely that the impact of the new arena will be of a similar magnitude.

By comparison, a 522,000 square foot biotechnology facility, with a ratio of space to employee of 250 to 1 can accommodate more than 2,000 employees. That represents four times more employment for biotechnology than for the Arena. It is also consistent with an estimate of economic output on the order of \$1 billion, an order of magnitude higher than for the Arena. Accordingly, the biotechnology development can serve as a much more significant engine of economic growth for the region than can the new event center. Ancillary (indirect and induced) economic benefits for the City of San Francisco are estimated to similarly be in excess of \$1 billion. The gross receipts tax implications for the City of San Francisco are conservatively estimated to be \$754,000 per year.<sup>18</sup>

<sup>17</sup>Memo to Patrick Soluri, Attorney at Law, from Philip King, Ph.D., regarding Urban Decay Analysis of Proposed Relocation of Golden State Warriors from Oakland to San Francisco, page 9.

<sup>18</sup>These estimates are from the 2013 San Francisco County model of IMPLAN and have been scaled to 2014 dollars. The actual estimates of ancillary output generated were divided by two in order to keep the estimates conservative. The actual revenues could be significantly greater.



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**Table 8. Stream of Net Revenues over Time**  
(Thousands of 2014 Discounted Dollars)

Year	Annual			Cumulative		
	Biotech	GSW	Difference	Biotech	GSW	Difference
<b>One-Time Net Revenues:</b>						
2016	\$9,108	-\$27,704	\$36,812	\$9,108	-\$27,704	\$36,812
<b>Start of Ongoing Revenues:</b>						
2017	\$7,600	\$7,440	\$160	\$16,708	-\$20,264	\$36,972
2018	\$7,450	\$7,290	\$160	\$24,158	-\$12,974	\$37,132
2019	\$7,302	\$7,142	\$160	\$31,460	-\$5,831	\$37,292
2020	\$7,157	\$6,998	\$159	\$38,618	\$1,167	\$37,451
2021	\$7,016	\$6,857	\$159	\$45,633	\$8,024	\$37,609
2022	\$6,877	\$6,718	\$158	\$52,510	\$14,742	\$37,768
2023	\$6,740	\$6,583	\$157	\$59,250	\$21,325	\$37,925
2024	\$6,607	\$6,450	\$157	\$65,857	\$27,775	\$38,082
2025	\$6,476	\$6,320	\$156	\$72,333	\$34,095	\$38,238
2026	\$6,348	\$6,192	\$155	\$78,681	\$40,288	\$38,393
2027	\$6,222	\$6,068	\$154	\$84,903	\$46,355	\$38,547
2028	\$6,099	\$5,945	\$154	\$91,001	\$52,300	\$38,701
2029	\$5,978	\$5,825	\$153	\$96,979	\$58,126	\$38,854
2030	\$5,860	\$5,708	\$152	\$102,839	\$63,834	\$39,006
2031	\$5,744	\$5,593	\$151	\$108,583	\$69,427	\$39,157
2032	\$5,630	\$5,480	\$150	\$114,213	\$74,907	\$39,307
2033	\$5,519	\$5,370	\$149	\$119,732	\$80,277	\$39,456
2034	\$5,410	\$5,262	\$148	\$125,142	\$85,538	\$39,603
2035	\$5,303	\$5,156	\$147	\$130,444	\$90,694	\$39,750
<b>Year 20 of Event Center operation:</b>						
2036	\$5,198	\$5,052	\$146	\$135,642	\$95,746	\$39,896

Source: Marin Economic Consulting

### 4: Questioning the Benefits and Costs of the GSW Project

There are few guarantees with economic endeavors. Assuming that the conditions that exist today will exist tomorrow, the day after that, or 20 years from now is of dubious merit. Conditions change. The level of success of a basketball team ebbs and flows (though hopefully not for the Warriors), the economy grows and shrinks, modes of transportation change, and the availability of hotel rooms may decline as demand grows but supply does not.

This certainly holds true for the construction of an arena. While it is quite likely that the Warriors will play at the arena for the foreseeable future and experience a high level of success for some time, it is not certain that the estimated revenues will materialize. As a case in point, the EPS study assumes a sales price for the land of \$172,546,000. It has just been announced that the sales price was \$150,000,000. That represents a reduction in sales price of 13%, with a corresponding reduc-

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tion in revenues that are tied to the sales price: transfer taxes and ongoing property taxes. Although the long-term implications of a decline in ongoing property taxes is likely small, the transfer tax is reduced from \$4.2 million to \$3.65 million, a reduction in one-time revenues of \$549,000. Granted, this is just one percent of the one-time transit costs associated with the project, but it is more than half a million dollars no longer available for other city needs.

Two categories of revenue are particularly suspect: hotels and parking. With regard to hotels, it is not immediately clear that moving the venue from Oakland to San Francisco will necessarily lead to a significant increase in demand for hotel rooms in San Francisco. With regard to parking, the demand for parking ebbs and flows with the economy. It is also likely that demand for parking will decline significantly in the coming years. Estimates included in the EPS report are therefore likely biased upward and those revenues will not fully materialize.

### — Hotel/Motel Occupancy Tax

There are primarily two concerns related to forecasts of increased demand for hotel rooms in San Francisco resulting from the construction of the Event Center. First, San Francisco hotel occupancy rates for much of the year are very high, implying little excess capacity to be filled by basketball fans. During times of high demand for hotel rooms in San Francisco, many of those staying overnight for an event at the arena may choose to stay outside of the City. Alternatively, the demand resulting from arena events may well divert others to hotel rooms outside of the City. Second, it is also likely that many overnight visitors for the Warriors games currently stay in San Francisco, despite attending a game played in Oakland. Despite the change of venue to San Francisco, it is not clear that this shift will result in a significant net increase in demand for San Francisco hotel rooms.

The EPS estimates of revenues associated with the GSW project indicate an increase in hotel room occupancy. However, San Francisco is generally regarded as having a significant shortage of hotel rooms and to be operating near full capacity. Indeed, occupancy rates for San Francisco are high by any standard. San Francisco ranks third nationally in occupancy rates; New York is ranked #1.

The EPS report assumes that 10% of Event Center attendees are potential overnight visitors but that only half of them will constitute new demand for hotel rooms in San Francisco. This assumption represents an increase in demand for hotel rooms of approximately 50,000. However, it is likely that many current overnight visitors to Oracle Arena stay in San Francisco. It is entirely possible that a new arena will have a much smaller net impact on the demand for hotel rooms in San Francisco. This puts some \$1.7 million in expected additional revenues in question. If half of this demand does not materialize, or is displacement of other demand for hotel rooms in the City, this could reduce overall revenues by half, or by \$800,000 to \$900,000 in each year of operation, amounting to more than \$13 million in present discounted terms over 20 years of arena operation.

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### — Parking

Going forward, the use of personal vehicles and hence the demand for parking, as well as transit services, is going to be subject to significant disruption. In particular, ride-sharing services continue to grow, especially in San Francisco. With the use of these vehicles, the demand for parking at an event site will likely decline. There is also growing evidence that autonomous vehicles will be available in the near future. Several automobile and tech companies have announced a target date of 2020 for making these cars, or cars with this capacity, available to the general public. The growth of ride-sharing and the development of autonomous vehicles will likely reduce the demand for parking, particularly the demand related to attending events. The advent of autonomous cars being used in car-sharing will significantly increase the rate at which parking demand declines. Current estimates are that the Event Center will result in the demand for parking spaces on the order of 422,000 per year. Some of this demand for parking is likely to evaporate over time.

There could also be a significant decline in the demand for public transportation resulting from increased car-sharing. This has several implications. First, planned investments in infrastructure designed to expand transit availability to serve events may be rendered to some extent obsolete as people move away from transit and toward the use of autonomous vehicles, whether shared or privately owned. This represents a move away from transit toward private vehicles. Despite the projected decline in parking demand, this represents increased need for traffic mitigation of some sort. There will likely be an increase in vehicular traffic to and from the Event Center that could have implications for the arena's neighbors.

With the advent of autonomous vehicles and greater use of ride-sharing services, it is possible that demand for parking could decline significantly over the coming years. If we assume that it declines at a rate of 1% each year, that would reduce revenues associated with parking by \$3.8 million over the 20-year time horizon. It will also reduce parking demand for a biotechnology development, but by less, just \$1.9 million over 20 years. Should parking demand decline more quickly (5%/year), revenues could decline by as much as \$15 million

### — Net Benefits

The point of this discussion is that estimated revenues are suspect, while estimated costs are much more likely accurate. Fixed investments, in particular, are known and not subject to market whims. However in this case, there are unknowns lurking in the cost estimates. It is likely that the revenue implications are biased high, resulting in uncertainty over their future stream with more downside risk than upside. It is already the case that actual one-time revenues have turned out to be less than anticipated (such as the transfer tax, which was lower by \$549,000) and that the City has revised its

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estimates of one-time costs upward (by nearly \$16 million) and its estimates of ongoing expenses upward (by \$1.4 million in each year). Clearly, there is great uncertainty in almost all of these estimates.

### 5: Some Sensitivity Analysis

In each case, the revenue estimates relating to the GSW project and the revenue estimates relating to a biotechnology center are uncertain. It is therefore worthwhile to experiment with basic assumptions to better understand the implications for City revenues. Table 9 offers some evidence for the implications of particular assumptions. We provide four separate alternatives that relax in different ways the assumptions inherent in the baseline analysis. The top line of the table presents the baseline results of the analysis, the estimates of present discounted net revenues accruing to the City (corresponding to the last row in Table 7). In the case of the biotechnology development net present discounted revenues are \$135.6 million whereas they are just \$95.7 million for the GSW project, a difference of \$39.9 million.

**Table 9. Summary of Net Present Discounted Value Associated with Alternatives (22 Years, 2015-2036)  
Comparing the Multi-Purpose Venue with a Biotechnology Center (Millions)**

Item	Biotech	GSW	Difference	
			Over 22 Years	Per Year
Baseline	\$135.6	\$95.7	\$39.9	\$1.8
Alternative 1	\$135.6	\$82.6	\$53.1	\$2.4
- Hotel/Motel Revenues are overstated by 50% in EPS report		<i>Over Baseline :</i>	\$13.2	
Alternative 2	\$147.0	\$95.7	\$51.2	\$2.3
- Area to employee ratio for Biotech of 200/1		<i>Over Baseline :</i>	\$11.3	
Alternative 3	\$154.5	\$95.7	\$58.7	\$2.7
- Add 200,000 sq ft to New Commercial Space (722,000 total)		<i>Over Baseline :</i>	\$18.0	
Alternative 4 (Extreme)	\$234.2	\$82.6	\$151.6	\$6.9
- Area to employee ratio for Biotech of 150/1		<i>Over Baseline :</i>	\$111.7	
- 100% of Biotech revenues are subject to GRT				
- Hotel/Motel Revenues are overstated by 50%				
- Add 200,000 sq ft to New Commercial Space (722,000 total)				

Source: Marin Economic Consulting

The first alternative scenario assumes that one-half of the demand for hotel rooms in San Francisco fails to materialize with the GSW project. This results in a reduction of approximately \$13.2 million

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in net present discounted revenues. The revenues associated with the biotechnology development are unchanged because there are no transient occupancy tax revenues assumed to occur.

The second alternative assumes a greater density of employment in the new commercial facility, leaving the existing commercial plans constant. If there are 200 square feet per employee, rather than 250, revenues associated with the new facility increase by more than \$11.3 million relative to the baseline. This increase in revenue stems largely from an increase in the output produced by the building's occupants, resulting in increased gross receipts tax revenues. It also increases the occupants interactions with the broader San Francisco economy, having a positive impact on ancillary benefits. Further reducing the space per employee will have correspondingly larger increases in revenues.

A third alternative assumes a larger facility is constructed, with 722,000 square feet of space rather than 522,000 square feet of space. This increases the number of employees working in the space by nearly 40%, holding the assumption that 250 square feet per employee is required. With greater space comes increased employment and increased output and increased demand for the output of the rest of the San Francisco economy. Accordingly, revenues are estimated to increase by nearly \$18.0 million with an expanded space. Under this scenario, the net discounted value of City revenues increases by \$58.7 million relative to the GSW project. Even larger spaces would have a correspondingly larger impact on City revenues.

Finally, an extreme alternative is offered. Alternative 4 allows for a 150 to 1 ratio of square feet to employees, assumes that all of the revenues accruing to the biotech occupants are subject to the GRT, reduces by one-half assumed hotel/motel TOT revenues associated with the Event Center, and involves a building with 722,000 square feet. Under this alternative, City revenues increase by \$111.7 million relative to the baseline, with biotechnology revenues exceeding GSW revenues by nearly \$151.6 million over 22 years and \$6.9 million per year.

These alternatives are not put forward to suggest that there is \$151.6 million being left on the table (though there may be), but rather to illustrate the range of differences that underlying assumptions can make. At the same time, even the extreme alternative is plausible.

## 6: Re-Evaluating the Net Benefits of Hosting the Warriors

There are two fundamental points made in this report:

1. Estimates of costs and revenues are highly speculative, and the evidence suggests that there is more downside risk to the GSW project than upside.
2. There is significant revenue that is forgone by the City in order to bring the Warriors to town.

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Both of these points raise significant questions about the Warriors arena project from a financial perspective. First, how comfortable are taxpayers in their understanding of the implications of this development? Second, is this the right development?

The respective answers are "not very" and "quite possibly no." There is uncertainty in the information available and replacing the Event Center in the project with additional commercial space has the potential to increase City revenues significantly.

Another way of thinking about the differences in revenues between the GSW project and a biotechnology development is that these differences reflect the price the City is paying in order to bring the Warriors to town. There are certainly other more tangible costs, but these costs are also real.

The above analysis indicates that even with relatively conservative assumptions, in particular those surrounding employment in the new development and the size of the new development, a biotechnology center would increase City revenues significantly relative to the Event Center. Under the baseline scenario, the difference is \$39.9 million over 22 years. Under the most extreme, yet plausible, scenario presented, an additional \$151.6 million could be raised over the 22-year period. This analysis presents a range of increases of between \$1.8 and \$6.9 million per year. It should be noted that the extreme alternative does not include the possibility of a larger facility. Were it to do so, the forgone annual revenues would be significantly higher. This suggests that the City of San Francisco is likely paying more than \$1.8 million and possibly upwards of \$7 million per year in forgone revenues in each of the next 22 years to accommodate the Warriors.

Every economic development represents a choice. That choice is between the proposed development and plausible alternatives. The City has chosen to pursue a basketball team without exploring or disclosing the relative merits of the project compared with plausible alternatives. This report is not designed to condemn the choice, but rather to better inform the debate on the implications of this choice.



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**APPENDIX: Details of Annual Revenue Calculations for Biotech in Comparison with the Warriors Project**

This appendix provides tables illustrating key differences in the assumptions and results between the analysis presented in the EPS report of 9/25/15 and the biotechnology project discussed in the text. The tables very closely mirror those in the EPS report and reproduce assumptions and results from that report. Some tables are not applicable to the biotechnology project and are omitted. In particular, Tables A-9 through A-11 are omitted. It should also be noted that these tables have not been updated to reflect the actual purchase price paid by the Warriors. It does, however, include updates to the City's estimates of one-time and ongoing costs.

**Table A-1. San Francisco Revenue Summary (Thousands of 2014 dollars)  
Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	GSW	Biotech	Difference
<b>Annual General Revenue</b>			
Property Tax (General Fund)	\$912	\$603	-\$309
Property Tax in Lieu of VLF	\$868	\$570	-\$298
Sales Tax	\$521	\$253	-\$268
Hotel/Motel Tax (General Fund)	\$1,667	\$0	-\$1,667
Parking Tax	\$482	\$243	-\$239
Stadium Admission Tax	\$4,336	\$0	-\$4,336
<b>Gross Receipts Tax</b>			
On-site	\$2,431	\$4,078	\$1,647
Off-site	\$42	\$0	-\$42
Utility User Tax	\$254	\$249	-\$5
Subtotal	\$11,513	\$5,996	-\$5,517
<b>Annual Other Dedicated and Restricted Revenue</b>			
Special Fund Property Taxes (Children's, Library, and Open Space)	\$148	\$98	-\$50
Public Safety Sales Tax	\$260	\$127	-\$133
San Francisco County Transportation Authority Sales Tax	\$260	\$127	-\$133
MTA Parking Tax	\$1,929	\$971	-\$958
Subtotal	\$2,597	\$1,322	-\$1,275
<b>TOTAL REVENUES</b>	<b>\$14,110</b>	<b>\$7,318</b>	<b>-\$6,792</b>

Source: EPS and Marin Economic Consulting

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**Table A-2. San Francisco City One-Time Fee Revenue Summary (2014 dollars)  
Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	GSW	Biotech	Difference
New Gross Building Area (sq.ft.)		1,156,500	
<b>City Fees (per gross building sq.ft.)</b>			
Child Care	\$661,870	\$1,263,240	\$601,370
Transit Impact Development Fee	\$17,435,765	\$10,901,655	-\$6,534,110
<b>Total Development Impact Fee</b>	<b>\$18,097,635</b>	<b>\$12,164,895</b>	<b>-\$5,932,740</b>
<b>Other In-Lieu Impact Fees</b>			
<b>Other One-Time Revenues</b>			
Sales Taxes During Construction	\$2,354,634	\$1,617,159	-\$737,475
Gross Receipts Tax During Construction	\$2,953,050	\$2,027,835	-\$925,215
Property Transfer Tax from Initial Land Sale	\$4,200,000	\$4,200,000	\$0

Source: EPS and Marin Economic Consulting

Note: The gross building area for the biotechnology development includes four commercial buildings with 1,044,000 square feet and retail of 112,500 square feet.

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Table A-3. San Francisco Property Tax Estimates (2014 dollars)  
Comparing the Multi-Purpose Venue with a Biotechnology Center

Item	Assumptions	GSW	Biotech	Difference
<b>Secured Assessed Value</b>				
Multi-Purpose Venue		\$550,000,000	\$0	\$550,000,000
<b>Other Development</b>				
Event Management/Team Operations Space		\$14,500,000	\$0	\$14,500,000
Retail		\$41,343,750	\$41,343,750	\$0
Office		\$302,760,000	\$605,520,000	-\$302,760,000
Parking		\$33,250,000	\$33,250,000	\$0
Subtotal		\$941,853,750	\$680,113,750	\$261,740,000
<b>New Taxable Value</b>				
Gross Secured Possessory Interest/Property Tax	1.0% of new AV	\$9,418,538	\$6,801,138	\$2,617,400
Unsecured Tax from the Warriors		\$183,333	\$0	\$183,333
Unsecured Tax from Other Uses		\$391,854	\$0	\$391,854
Subtotal		\$9,993,725	\$6,801,138	\$3,192,587
(less) Existing Taxes		-\$1,795,169	-\$1,795,169	\$0
Total		\$8,198,556	\$5,005,969	\$3,192,587
<b>Property Tax</b>				
Tier 1 Property Tax Pass Through	20.00%	\$1,639,711	\$1,001,194	\$638,517
Tier 2 Property Tax Pass Through	16.8%	\$1,377,357	\$841,003	\$536,355
Tier 1 and 2 Property Tax Pass Throughs	36.80%	\$3,017,068	\$1,842,196	\$1,174,872
Net New General Fund Share (after ERAF)	55.59% property tax tier 1 pass through	\$911,515	\$556,564	\$354,952
Special Funds	9.00% property tax tier 1 pass through	\$147,574	\$90,107	\$57,467
SF Unified School District	7.70% property tax pass through	\$232,314	\$141,849	\$90,465
Affordable Housing Set Aside		\$1,639,711	\$1,001,194	\$638,517

Source: EPS and Marin Economic Consulting

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Table A-4. Property Tax in Lieu of VLF Estimates (2014 dollars)  
Comparing the Multi-Purpose Venue with a Biotechnology Center

Item	GSW	Biotech	Difference
Citywide Total Assessed Value (millions \$)	\$172,489	\$172,489	
Total Assessed Value of Project (millions of \$)	\$941.85	\$680.11	\$261.74
(less) Existing Value	-\$179.52	-\$179.52	
Net Increase in Project Assessed Value (millions \$)	\$762.34	\$500.59	\$261.75
Growth in Citywide AV due to Project	0.442%	0.290%	
Total Property Tax in Lieu of Vehicle License Fee (VLF) (FY2014-15)	\$196,480,000	\$196,480,000	
<b>New Property Tax in Lieu of VLF</b>	<b>\$868,372</b>	<b>\$570,220</b>	<b>\$298,152</b>

Source: EPS and Marin Economic Consulting

Table A-5. Property Transfer Tax (2014 dollars)  
Comparing the Multi-Purpose Venue with a Biotechnology Center

Item	Assumptions	GSW	Biotech
One-Time Transfer Tax			
Estimated Land Sale		\$172,546,000	\$172,546,000
<b>One-Time Transfer Tax</b>	<b>\$24.34 per \$1,000 value</b>	<b>\$4,199,770</b>	<b>\$4,199,770</b>

Source: EPS and Marin Economic Consulting

Note: The actual transaction price for the property is \$150 million.

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**Table A-6. Sales Tax Estimate (thousands of 2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Biotech	Difference
<b>Taxable Sales from Multi-Purpose Venue</b>				
Warriors Game Concessions and Merchandise	\$21.60 per attendee	\$15,768		
Other Event Concessions	\$11.00 per attendee	\$12,859		
Total		\$28,627		
Sales Tax to General Fund	1.0% of taxable sales	\$286		
(less) Existing Sales Shift		-\$18		
Net New Sales Tax		\$267		
<b>Taxable Sales From Commercial Space</b>				
Retail	\$450 per sq ft	\$50,625	\$50,625	\$0
Sales Tax to San Francisco	1.0% of taxable sales	\$506	\$506	\$0
(less) Shift From Existing Sales		-\$253	-\$253	\$0
Net New Sales Tax		\$253	\$253	\$0
<b>Annual Sales Tax after Shift of Existing Sales</b>				
Sales Tax to the City General Fund	1.00%	\$521	\$253	-\$268
Public Safety Sales Tax	0.50% of taxable sales	\$260	\$126	-\$133
San Francisco County Transportation Authority	0.50% of taxable sales	\$260	\$127	-\$134
SF Public Financing Authority (Schools)	0.25% of taxable sales	\$130	\$63	-\$67
<b>One-Time Sales Taxes on Construction Materials and Supplies</b>				
New Taxable Value		\$941,854	\$680,114	-\$261,740
Supply/Materials Portion of Development Value	50.00%	\$470,927	\$340,057	-\$130,870
San Francisco Capture of Taxable Sales	50.00%	\$235,463	\$170,028	-\$65,435
Sales Tax to San Francisco	1.0% of taxable sales	\$2,355	\$1,700	-\$654

Source: EPS and Marin Economic Consulting

**Table A-7. Transient Occupancy Tax Estimates Estimate (2014 dollars)**  
**The implications of over-estimating hotel and motel occupancy.**

Item	Assumptions	GSW	50% of GSW	Difference
<b>Overnight Attendees in San Francisco for Multi-Purpose Venue Events</b>				
Events per Year		205	205	0
Total Turnstile Attendance		1,899,000	1,899,000	0
Potential Overnight Visitors		189,900	189,900	0
Net New Overnight Visitors	50% (25%)	94,950	47,475	-47,475
Hotel Room Demand	1.90 people per room	49,974	24,987	-24,987
Off-Site Hotel/Motel Room Proceeds	\$238 per-room night	\$11,907,203	\$5,946,868	-\$5,960,335
<b>Total Hotel/Motel Tax Revenue</b>	14% of room revenue	\$1,667,012	\$832,562	-\$834,450

Source: EPS and Marin Economic Consulting

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**Table A-8. Parking Tax Estimates (2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Assumptions	50% of GSW	Difference
<b>Total Spaces On-Site</b>		950		950	
<b>Parking Revenues On-Site</b>					
Total	\$25 per day	\$8,668,750	\$20 per day	\$6,935,000	
(less) Vacancy	30%	-\$2,600,625	30%	-\$2,080,500	
Total		\$6,068,125		\$4,854,500	
<b>Spaces Off-Site</b>					
Annual Demand (spaces)		178,791			\$0
Total Parking Revenue	\$20 per day	\$3,575,821			\$0
<b>San Francisco Parking Tax</b>					
Parking Tax Allocation to Gen'l Fund/Special Projects	25% of annual revenue	\$2,410,987	25% of annual revenue	\$1,213,625	-\$1,197,362
Parking Tax Allocation to Municipal Transportation Fund	20% of tax proceeds	\$482,197	20% of tax proceeds	\$242,725	-\$239,472
Parking Tax Allocation to Municipal Transportation Fund	80% of tax proceeds	\$1,928,789	80% of tax proceeds	\$970,900	-\$957,889

Source: EPS and Marin Economic Consulting



# O-MBA16S6

Table A-12. Parking Tax Estimates (2014 dollars)  
Comparing the Multi-Purpose Venue with a Biotechnology Center

Item	Assumptions	GSW	Biotech	Difference
<b>Arena Utility Cost</b>		\$1,490,000	\$0	-\$1,490,000
<b>Other Uses</b>				
Retail	\$2.87 per sq.ft.	\$322,875	\$322,875	\$0
Office (Including Event Management and Team Operations)	\$2.87 per sq.ft.	\$1,569,890	\$2,996,280	\$1,426,390
Total Annual Commercial Utility Cost		\$3,382,765	\$3,319,155	-\$63,610
<b>Utility User Tax</b>	7.5% of commercial utility cost	\$253,707	\$248,937	-\$4,771

Source: EPS and Marin Economic Consulting

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# O-MBA17L5

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November 2, 2015

By personal delivery to:	By email to: <a href="mailto:warriors@sfgov.org">warriors@sfgov.org</a> :
Commission on Community Investment and Infrastructure Attn: Claudia Guerra, Commission Secretary Office of Community Investment and Infrastructure 1 South Van Ness Avenue, 5th Floor San Francisco, CA 94103	Ms Tiffany Bohee OCII Executive Director c/o Mr. Brett Bollinger San Francisco Planning Department 1650 Mission Street, Suite 400 San Francisco, CA 94103
and email to: <a href="mailto:claudia.guerra@sfgov.org">claudia.guerra@sfgov.org</a>	

**Re: Warriors Arena Project: Secondary Use Finding, Lack of Fair Trial, and Request for Documents under the California Public Records Act and the San Francisco Sunshine Ordinance.**

Dear Ms Bohee and Mr. Bollinger:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project"). The Mission Bay Alliance objects to approval of this Project and certification of the Project SEIR.

I write today regarding the discussion of secondary uses in Attachment C to the Memorandum to the CCII from Executive Director Tiffany Bohee for Items 5(a), 5(b), 5(c), 5(d) & 5(e) the November 3, 2015, CCII meeting agenda. The short time period between the October 29, 2015, publication of this memorandum and the November 3, 2015, OCII hearing to determine the "secondary use" question for the public to respond deprives my client of a fair trial under subdivision (b) of section 1094.5 of the Code of Civil Procedure.

The November 17, 2014 Initial Study for the Project asserted the event center is an allowable secondary use under the Redevelopment Plan because "The proposed event center uses are

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Commission on Community Investment and Infrastructure  
Ms Tiffany Bohee  
Mr. Brett Bollinger

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considered 'nighttime entertainment uses.'"<sup>1</sup>

Then on July 26, 2015, Susan Brandt-Hawley, my co-counsel for the Alliance, submitted a letter to OCII arguing that "The Event Center is not 'Nighttime Entertainment' as Defined in the Mission Bay South Redevelopment Plan." (July 26, 2015, Brandt-Hawley Law Group letter, p. 3.)

Now, almost a year after the Initial Study and three months after Ms Brandt-Hawley's letter, the first suggestion that OCII might change its position on whether or how the event center is an allowable secondary use under the Redevelopment Plan is a short line in the Responses to Comments published on October 23, 2015, stating that "the Mission Bay Redevelopment Plan analyzed under the 1998 SEIR permits all of the project uses as either principally permitted uses (Office, Retail, Arts Activities, Open Recreation / Outdoor Activity Areas, Parking) or as secondary uses (Assembly and Entertainment Uses, including Nighttime Entertainment and Recreation building uses, as well as other uses such as Public Structures and Uses of a Nonindustrial Character)." (FSEIR/RTC, Volume 4, p. 13.3-27.)

Then, only three business days before the OCII hearing to determine this question, Ms. Bohee's memorandum for the first time publicly asserts a rationale for considering the event center an allowable secondary use as either a "recreation building" or a "public structure or use of a nonindustrial character." (See Attachment C, pp. 6-7.) Aside from the substantive inadequacy of the rationale, which will be the topic of separate correspondence, this short turnaround time on a question of this importance deprives the public, and my client, of a fair trial under subdivision (b) of section 1094.5 of the Code of Civil Procedure.

In addition, Attachment C states that the "determination" that the event center is a "public structure or use of a nonindustrial character" is "consistent with OCII precedent; for example, in approving the UCSF Medical Center the Executive Director found that it constituted a secondary use as a public structure notwithstanding those members of the public generally pay for medical services provided at the center." (Attachment C, p. 7.)

My client hereby requests, under the fair trial requirement of Code of Civil Procedure section 1094.5(b), the California Public Records Act, and the San Francisco Sunshine Ordinance, that OCII produce to my office, immediately and before the November 3, 2015, OCII hearing, a copy of any

<sup>1</sup>"The proposed project would result in the construction and operation of an event center, office and retail uses, parking facilities and open space areas within the project site. The retail and office uses would be generally consistent with the previously proposed uses for the site, such that no new or more severe conflicts with land use character would occur. The proposed event center uses are considered "nighttime entertainment uses...." (Initial Study, p. 33)

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Warriors Arena Project: Secondary Use Finding, Lack of Fair Trial, and Request for Documents  
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documents that memorialize any previous determinations by the OCII, the Redevelopment Agency, or the Executive Director on whether a proposed building in the Mission Bay South Redevelopment Plan area is an allowable as a secondary use because it is either (1) a place for night time entertainment, (2) a recreation building, or (3) a public structure or use of a nonindustrial character; including any document memorializing the Executive Director's finding that the UCSF Medical Center "constituted a secondary use as a public structure."

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

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November 2, 2015 [2 of 2]

By personal delivery at Nov. 3, 2015, hearing to:	By email to: <a href="mailto:warriors@sfgov.org">warriors@sfgov.org</a> :
Commission on Community Investment and Infrastructure Attn: Claudia Guerra, Commission Secretary Office of Community Investment and Infrastructure 1 South Van Ness Avenue, 5th Floor San Francisco, CA 94103	Ms Tiffany Bohee OCII Executive Director c/o Mr. Brett Bollinger San Francisco Planning Department 1650 Mission Street, Suite 400 San Francisco, CA 94103
and email to: <a href="mailto:claudia.guerra@sfgov.org">claudia.guerra@sfgov.org</a>	

**Re: Warriors Arena Project: Violation of Variance Requirement.**

Dear Ms Bohee and Mr. Bollinger:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project"). The Mission Bay Alliance objects to approval of this Project and certification of the Project SEIR.

I write today regarding the OCII's failure to require a variance or "variation" for this Project under section 305 of the Mission Bay South Redevelopment Plan ("Plan"). The November 2, 2015, letter from Susan Brandt-Hawley, my co-counsel for the Alliance, demonstrates this Project is not an allowable secondary use under the Plan. Thus, a variance is not available because, as shown by Brandt-Hawley, the Project "will change the land uses on this Plan." (Plan, § 305.) However, in the alternative, if the Project is an allowable secondary use under the Plan, then the OCII must process this Project application as a variance and make the findings required by Plan section 305 before Project approval.

Both California and San Francisco planning law provide a process for landowners to obtain a "variance" from the "uniformity" of zoning limits that, while appropriate for the zone district in general, would impose undue hardship due to unique characteristics of a specific parcel. Government Code section 65906 governs the grant of zoning variances by municipalities and prohibits local agencies from granting "special privileges" to individual landowners. Similarly, San

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Francisco Planning Code, section 305, subdivision (a), provides that a variance permit must be approved for any exception to the requirements of the Planning Code. Subdivision (c) thereof mirrors the requirements of state law, and requires a finding that "owing to such exceptional or extraordinary circumstances the literal enforcement of specified provisions of this Code would result in practical difficulty or unnecessary hardship ...."

Similarly, the Plan includes a variance provision that reflects the same substantive requirements as Government Code section 65906 and Planning Code section 305:

The Agency may modify the land use controls in this Plan where, owing to unusual and special conditions, enforcement would result in undue hardships or would constitute an unreasonable limitation beyond the intent and purposes of these provisions. Upon written request for variation from the Plan's land use provisions from the owner of the property, which states fully the grounds of the application and the facts pertaining thereto, and upon its own further investigation, the Agency may, in its sole discretion, grant such variation from the requirements and limitations of this Plan. The Agency shall find and determine that the variation results in substantial compliance with the intent and purpose of this Plan, provided that in no instance will any variation be granted that will change the land uses on this Plan.

(Plan, § 305.)

Because the Plan's variance provision imposes virtually identical requirements as Planning Code section 305, both apply. (Plan, §'s 101 ["Regardless of any future action by the City or the Agency, whether by ordinance, resolution, initiative or otherwise, the rules, regulations, and official policies applicable to and governing the overall design, construction, fees, use or other aspect of development of the Plan Area shall be (i) this Plan and the other applicable Plan Documents, (ii) to the extent not inconsistent therewith or not superseded by this Plan, the Existing City Regulations and (iii) any new or changed City Regulations permitted under this Plan"]; 304.9.C.(iv)).

Here, the Project creates at least sixteen inconsistencies with the Design for Development (D4D). The OCII now proposes to amend the D4D, the Owner's Participation Agreement (OPA), and other Plan documents to resolve these inconsistencies by, including but not limited to, raising maximum height limits from 90 to 135 feet, allowing a second 160+ foot tower, increasing bulk limits to accommodate the arena, and changing arena setbacks, street wall heights, view corridors, public rights of way, and parking standards. (See e.g., Draft SEIR, pp. 4-7 - 4-9, § 4.2.4; Proposed Resolution 2015, exhibit A; Memorandum to the OCII from Executive Director Tiffany Bohee for Items 5(a), 5(b), 5(c), 5(d) & 5(e) the November 3, 2015, CCII meeting agenda, pp. 4, 22.)

Even if the Project's land uses are allowable secondary uses, these amendments "modify the land use controls in this Plan" as provided in Plan section 305. But the Project Sponsor has made

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no showing that due to “unusual and special conditions, enforcement would result in undue hardships or would constitute an unreasonable limitation beyond the intent and purposes of these provisions.” (Plan, § 305.)

“Variances are, in effect, constitutional safety valves to permit administrative adjustments when application of a general regulation would be confiscatory or produce unique injury.” (Curtin’s California Land Use and Planning Law, p. 55.) Variance requirements also implement the State Planning and Zoning Law’s requirement of “uniformity” of zoning rules within zoning districts. (See Gov. Code, § 65852 [“All such [zoning] regulations shall be uniform for each class or kind of building or use of land throughout each zone, but the regulation in one type of zone may differ from those in other types of zones;” *Neighbors in Support of Appropriate Land Use v. Cnty. of Tuolumne* (2007) 157 Cal.App.4th 997, 1008 (*Neighbors*).) The State Planning and Zoning Law also requires vertical consistency between local agencies general plans, zoning ordinances, and land use permits. (Gov. Code, § 65860, subd. (c) [“County or city zoning ordinances shall be consistent with the general plan of the county or city... ”]; see *DeVita v. Cnty. of Napa* (1995) 9 Cal.4th 763, 772 [“A general plan is a ‘constitution’ for future development [citation omitted] located at the top of ‘the hierarchy of local government law regulating land use’”].)

California courts have vigorously enforced the requirements for granting a variance, and have developed extensive jurisprudence to corral the many stratagems local agencies have used to avoid its requirements. (See e.g., *Topanga Association v. County of Los Angeles* (1974) 11 Cal.3d 506, 511-12 (*Topanga*); *Orinda Assn. v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1166 (*Orinda Assn*) [“A zoning scheme, after all, is similar in some respects to a contract ... If the interest of these parties in preventing unjustified variance awards for neighboring land is not sufficiently protected, the consequence will be subversion of the critical reciprocity upon which zoning regulation rests...”].)

Variance findings must focus on a comparison of the subject property to other properties in the zone district with which the variance is intended to bring it into parity, and the benefits to the community or “public interest” associated with a zoning exception are irrelevant. (*Orinda Assn, supra*, at p. 1166.) By amending the Plan documents to accommodate this Project, the OCII would cast these requirements aside and grant a “special privilege” to this Project Sponsor.

In *Neighbors*, rather than adopt a rezone or grant a variance, the County created a special exception to the zoning ordinance for one landowner by including it in a development agreement adopted under the development agreement law. (*Neighbors, supra*, 157 Cal.App.4th at p. 1003.) In rejecting this stratagem, the Court in *Neighbors* noted that there are limits on the power to rezone: “‘The foundations of zoning would be undermined, however, if local governments could grant favored treatment to some owners on a purely ad hoc basis ... [R]ezoning, even of the smallest parcels, still necessarily respects the principle of uniformity.” (*Id.* at pp. 1009-10.)

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Commission on Community Investment and Infrastructure  
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A similar result occurred in *Trancas Prop. Owners Assn. v. City of Malibu* (2006) 138 Cal.App.4th 172 (*Trancas*). In *Trancas*, the court held an exemption from a city’s zoning requirements accomplished by contract functionally resembled a variance, and held that “such departures from standard zoning by law require administrative proceedings, including public hearings ... followed by findings for which the instant [density] exemption might not qualify... Both the substantive qualifications and the procedural means for a variance discharge public interests. Circumvention of them by contract is impermissible.” (*Id.* at p. 182.)

In sum, the OCII’s proposed grant of zoning exceptions to this Project by way of amending the Plan documents rather than by variance violates the Plan, the variance requirements of the San Francisco Planning Code and state law, and the uniformity requirement of state law.

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

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November 2, 2015

Tiffany Bohee, OCII Executive Director  
c/o Brett Bollinger, San Francisco Planning Department  
via email [warriors@sfgov.org](mailto:warriors@sfgov.org)

Subject: Warriors Event Center & Mixed Use Development  
Inconsistency with Mission Bay South Redevelopment Plan  
'Secondary Use' Classification

Dear Director Bohee and Mr. Bollinger:

The Mission Bay Alliance (the Alliance) contends that the Warriors' Event Center is unlawfully inconsistent with every use allowed by the Mission Bay South Redevelopment Plan (the Plan). Although the Alliance raised this issue in comments on the Draft Subsequent EIR (DSEIR), both the Responses to Comments in the Final SEIR and OCII's findings of project consistency remain materially inadequate.

The Plan designates uses allowed at a 'Commercial Industrial/Retail' site. The Alliance notes that while OCII now concedes that a sports arena is not within the scope of allowed 'principal uses' in that zoning, OCII contends that an arena is consistent with 'secondary uses.' As this letter will explain, all such secondary uses are similarly and demonstrably insufficient to permit the Warriors' sports arena.

**Nighttime Entertainment.** The Initial Study concluded, in error, that the DSEIR did not need to address land use issues — at all. It asserted that the entire Event Center, including the sports arena use, somehow met the secondary 'Nighttime Entertainment' use analyzed in the 1998 Plan EIR. Secondary uses were then generally referenced in the DSEIR (*e.g.*, pp. 3-8, 3-51, 4-5, 5.2-115), but there was no discussion of which category of secondary use would be allocated to the Event Center, inferring acceptance of the Nighttime Entertainment category.

The Plan describes Nighttime Entertainment in terms of small-scale local uses like dance halls, bars, nightclubs, discotheques, nightclubs, private clubs, and

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Warriors Event Center  
Secondary Use Inconsistency  
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restaurants. (Plan, p. 50.) At the time of the 1998 EIR, several small neighborhood bars occasionally offered nighttime entertainment, consistent with the secondary use category. Such minor uses were compatible with the 3rd Street Corridor and the waterfront. Clearly, no mammoth regional entertainment venue was anticipated in Mission Bay South and no such use was considered in the 1998 Plan EIR.

And while professional basketball games are held at night, the Event Center also projects 31 annual events "related to conventions, conferences, civic events, corporate events and other gatherings," with an estimated attendance of between 9,000 and 18,500 patrons. "[T]he majority of events are expected to occur during day time hours." Such events are not 'Nighttime Entertainment.'

The Director's currently-proposed findings that the sports arena is 'Nighttime Entertainment' contemplated as a secondary use in the Plan are unsupported. The findings fail to match the scope and impacts of a professional sports venue with the analysis or description of uses in the Plan or in the 1998 EIR. The findings are fatally conclusory; that somehow a professional sports venue would be "similar" to a nightclub or bar use in the 'Nighttime Entertainment' category "because" it will serve alcohol, provide amplified live entertainment, and provide a venue for evening gatherings. The findings fail to address the core inconsistency of a regional sports arena with the intent of the adopted Plan and the Design for Development, which focus on commercial entertainment uses in Mission Bay North to complement the Giants' ballpark.

OCII's reliance on the negative; to wit, that the 'Nighttime Entertainment' secondary use has no specific size limitations, is not enough. The Plan provides for the continued development of Mission Bay South as a walkable urban community intended to facilitate world-class medical and biotechnology development. The Event Center project violates the Plan Area Map carefully designed in classic, walkable Vara Blocks. (Plan, Attachment 2, p. 40.) Neither the Plan nor the Design for Development contemplate any uses comparable in scope or impact to the Event Center as 'Nighttime Entertainment.'

That being said, in fact in the Final SEIR and as reflected in the proposed Plan consistency findings, OCII now implicitly agrees with the Alliance that the 'Nighttime Entertainment' secondary use standing alone does not encompass a sports arena. Now, OCII additionally relies on the Plan's alternate 'secondary uses.' No such uses are consistent with the Plan, as explained below.

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Warriors Event Center  
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**Recreation Building.** One of the Plan's secondary use categories is for an undefined 'Recreation building.' (Plan, p. 15.) The Plan describes 'Outdoor Recreation' as "an area, not within a building, which is provided *for the recreational uses of patrons* of a commercial establishment." (Plan, p. 50, italics added.)

OCII's proposed findings as to the 'Recreation building' category stretch the regional sports arena use not only beyond what was contemplated by the Plan or studied in the 1998 EIR, but beyond logic. To state the obvious: there is a difference between 'recreation' and 'entertainment.' Both involve enjoyment and leisure, and may involve ancillary eating and drinking, and the Alliance has no quarrel with the Director's reference to recreation as "something people do to relax or have fun; activities done for enjoyment." (OCII Proposed Secondary Use Determination, p. 6.) But myriad dictionary definitions confirm and it cannot readily be denied that 'recreation' is commonly understood to involve one's personal physical activities while 'entertainment' refers to events or performances designed to entertain others.

None of the Plan's various references to 'entertainment' include athletic activities normally considered 'recreation:' Adult Entertainment [bookstore or theater], Amusement Enterprise [video games], Bar [drinking and theater], Theater [movies and performance]. (Plan, Attachment 5, pp. 44-51.) Consistently, the 1998 EIR's discussion of 'recreational' land uses focused in turn on open space, bicycles, parks, and water-based activities. (Mission Bay EIR, Volume IIB, pp. V.M. 15-28.)

In context, the Plan's reference to 'Recreation building' as a secondary use contemplates participatory recreational uses like the 'recreation facilities' referenced in the 1998 Plan EIR for the existing golf driving range and in-line hockey rink, with the expressed expectation that the size of recreational 'facilities' would decrease as redevelopment of the Plan area progressed. (OCII Proposed Secondary Use Determination, p. 6.)

Reliance on the secondary use of 'Recreation building' is unsupported.

**Public Structure or Use of a Nonindustrial Character.** As presented in the Plan, the category of "other secondary uses" labeled 'Public structure or use of a nonindustrial character' references *one* secondary use, not *two*. (Plan, p. 13.) The use is required to be public, and either a structure *or* a use.

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Warriors Event Center  
Secondary Use Inconsistency  
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The interpretation urged by the Director is, again, strained beyond the plain words of the Plan. 'Public' is not defined in the Plan and so its common meaning is assumed. But as proposed in the consistency findings, OCII interprets a 'public' use as simply requiring that the public be somehow 'served.' That would encompass every kind of principal and secondary use listed in the Plan, from child care to animal care to hotel, *etc.*, and renders the category meaningless: *i.e.*, "Any use is ok."

Instead, a public structure or use is commonly understood to be under the control and management of a public agency for the benefit of its constituency — such as the University of California<sup>1</sup> or the City of San Francisco. The Plan provides a description of a range of anticipated public improvements in Attachment 4. This list includes both public buildings and public uses. None of the public improvements listed in Attachment 4 include anything like a private professional sports arena.

The Event Center is a private project and is not within the scope of the secondary use category for a public structure or use of a nonindustrial character.

**Director's Findings.** As explained, the sports arena uses that are the impetus for the Event Center project are not allowed by the Plan's allowed principal or secondary uses. An allowed use is prerequisite for a finding of Plan consistency. The Alliance will not belabor the myriad other inconsistencies with the Plan's objectives, design, incompatibility with UCSF, and creation of significant environmental impacts, as those have been described in the DSEIR comments and throughout the administrative record, but hereby objects to their insufficiencies and lack of supporting substantial evidence for the Plan consistency finding.

Consideration of the Event Center project must be preceded by amendment of the Plan to be consistent with the delineated principal and secondary uses and the adopted Plan Area Map of the Mission Bay South Redevelopment Plan.

Thank you.

Sincerely yours,

Susan Brandt-Hawley  
Attorney for Mission Bay Alliance

<sup>1</sup> See attached 2005 Resolution and Secondary Use finding regarding the "UCSF hospital" as a "public structure or use of a non-industrial character" for "a public body specifically created by the California Constitution."

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O-MBA19B3

RESOLUTION NO. 176-2005

Adopted November 1, 2005

APPROVING A MEMORANDUM OF UNDERSTANDING WITH THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, A CALIFORNIA PUBLIC CORPORATION, AND ACKNOWLEDGING THE EXECUTIVE DIRECTOR'S FINDINGS OF CONSISTENCY WITH THE MISSION BAY SOUTH REDEVELOPMENT PLAN, FOR THE EXPANSION OF UCSF FACILITIES IN THE MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA; MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA

BASIS FOR RESOLUTION

1. On September 17, 1998, by Resolution No. 193-98, the Redevelopment Agency of the City and County of San Francisco's (the "Agency") Commission (the "Agency Commission") conditionally approved the Mission Bay South Owner Participation Agreement (the "South OPA") and related documents between Catellus Development Corporation (the "Owner") and the Agency for development in the Mission Bay South Redevelopment Project Area (the "Project Area").
2. On November 2, 1998, the Board of Supervisors of the City and County of San Francisco (the "Board") by Ordinance No. 335-98 approved and adopted the Redevelopment Plan for the Mission Bay South Redevelopment Project Area (the "Plan"). The Board's adoption of the Plan satisfied the conditions to the effectiveness of Agency Resolution No. 193-98.
3. On November 16, 1998, the Agency entered into the South OPA with the Owner. The South OPA sets forth phasing principles that govern the development of property in the Project Area. Those principles include the Owner's obligations to deliver to the Agency affordable housing sites as market rate housing is built in the Project Area. They also include the Owner's commitments to construct public open space and other public infrastructure adjacent to – or otherwise triggered by – development on any of the private parcels governed by the South OPA.
4. Under the South OPA and the related Mission Bay South Tax Increment Allocation Pledge Agreement (the "Pledge Agreement"), dated as of November 16, 1998, between the Agency and the City and County of San Francisco (the "City"), approximately 20% of the total property tax increment (plus certain excess tax increment) generated by development in the Project Area is contractually dedicated to develop affordable housing units on parcels that the Owner will contribute to the Agency, to achieve the affordable housing program contemplated by the Plan.

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5. The South OPA requires the Owner to construct the public infrastructure directly related to each of the major phases in accordance with the incremental build-out of each project. Under the South OPA and the Pledge Agreement, the Agency is obligated to fund, repay or reimburse the Owner, subject to certain conditions, for the direct and indirect costs of constructing the infrastructure. The Agency has established a Community Facilities District ("CFD") for infrastructure in the Project Area. The Agency has also established a separate CFD to pay the costs of maintaining the public open space in the Project Area.
6. The South OPA provides that as a condition to any transfer of property in the Project Area, the Owner must obtain the agreement of the transferee to assume all of Owner's obligations under the South OPA with respect to the transferred parcels.
7. The Project Area includes an approximately 43-acre biomedical research and educational campus site (the "Campus Site") for the University of California, San Francisco ("UCSF"). UCSF has already invested about \$675 million on projects completed or underway on the Campus Site within the Plan Area and has plans to invest another \$225 million on projects in design.
8. The Regents of the University of California, a California public corporation ("The Regents") wishes to lease or acquire, and the Owner wishes to transfer Parcels 36, 37, 38 and 39 in the Project Area, comprising approximately 9.65 acres of land for the possible expansion of UCSF in Mission Bay (the "Expansion Parcels"). These parcels are not part of the 43 acres that the Plan originally designated as the Campus Site.
9. On November 30, 2004, The Regents released proposed amendments in draft form to its long range development plan, as LRDP Amendment #2. Those amendments contemplate an expansion of UCSF facilities onto the Expansion Parcels, including the possibility of developing by 2012 new integrated specialty Children's, Women's and Cancer hospitals containing about 210 beds, together with ambulatory and research facilities. In March 2005, The Regents approved LRDP Amendment #2 (the "Project") and certified a related final environmental impact report (the "LRDP #2 FEIR") which analyzed the environmental effects of the proposed UCSF development on the Expansion Parcels. Copies of the LRDP #2 FEIR are on file with the Agency Secretary.
10. The Owner and The Regents have entered into an Option Agreement and Grant of Option to Lease, dated as of January 1, 2005 (the "Option to Lease"), which provides that upon the satisfaction of certain conditions and the exercise by The Regents of its option (i) Catellus, as landlord, and The Regents, as tenant, will enter into a long-term ground lease of the Expansion Parcels (the "Lease") and (ii) the Owner and The Regents will at the same time enter into an Option Agreement and Grant of Option to Purchase (the



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"Option to Purchase") under which The Regents will have an option to purchase the Expansion Parcels.

11. If The Regents exercises the Option to Lease within the option term, the Lease would allow for The Regents to develop up to 1,020,000 leasable square feet on the Expansion Parcels, provided that (a) any development of those parcels is the subject of further environmental review under the California Environmental Quality Act ("CEQA"), and (b) the Owner does not lose any of its entitled development potential for the balance of its land nor lose any of its other rights and privileges under the South OPA.
12. Pursuant to Section 302 of the Plan, the development of the contemplated UCSF facilities on the Expansion Parcels is permitted as a subset of "Other Uses" as a secondary use. Such secondary uses are permitted provided that such use generally conforms with redevelopment objectives and planning and design controls established pursuant to the Plan and based on certain findings of consistency by the Agency's Executive Director (the "Consistency Findings"). The Executive Director has made the Consistency Findings, and such findings are hereby incorporated herein by this reference as if fully set forth.
13. The City must make substantial improvements to San Francisco General Hospital ("SFGH") by 2013 and is evaluating a number of alternatives, including rebuilding on site and co-locating a new SFGH with new UCSF medical facilities in Mission Bay.
14. As a State agency, The Regents is exempt under the State Constitution from local land use regulation and property taxes to the extent it uses property exclusively in furtherance of its educational mission.
15. The Agency, City and The Regents negotiated a non-binding term sheet to guide the preparation of final transactional and related documents, such as a Disposition and Development Agreement ("DDA") for The Regents to acquire property for, and to construct and subsidize, affordable housing for low-income workers of UCSF, which DDA is being considered by the Agency Commission concurrently with this Resolution, pursuant to Resolution No. 160-2005, and provided terms for a Memorandum of Understanding regarding design standards and cooperation on the development of the Expansion Parcels (the "MOU"). The Agency Commission approved the non-binding term sheet on May 17, 2005 by Resolution No. 81-2005.
16. The proposed MOU addresses, among other things: the potential loss of tax increment from the transfer of the Expansion Parcels to a tax-exempt entity; the obligations to build infrastructure associated with development on the Expansion Parcels; the potential assistance of UCSF in the planning of the co-location, if any, of SFGH with the new UCSF facilities; the standards for design review for construction on the Expansion Parcels; local hiring and

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equal opportunity for jobs associated with the development on the Expansion Parcels; and other matters designed to provide the Agency and City with significant public benefits.

17. Agency staff is recommending that the Agency Commission approve the MOU, and the associated Consistency Findings.
18. The Agency Commission has reviewed and considered the information contained in the LRDP #2 FEIR.
19. The Agency Commission hereby finds that the MOU is an action in furtherance of the implementation of the Project for purposes of compliance with CEQA.
20. By Resolution 175-2005, the Agency Commission adopted environmental findings related to the LRDP #2 FEIR, pursuant to CEQA and the CEQA Guidelines (the "Findings"). Such Findings are made pursuant to the Agency's role as the responsible agency under CEQA for the Project. The Findings are hereby incorporated herein by this reference as if fully set forth.

RESOLUTION

ACCORDINGLY, IT IS RESOLVED by the Redevelopment Agency of the City and County of San Francisco that the findings of consistency with the Mission Bay South Redevelopment Plan are approved and the Executive Director is authorized to execute the "Expansion of UCSF Facilities in Mission Bay South Redevelopment Project Area (Blocks 36-39) Memorandum of Understanding", substantially in the form lodged with the Agency General Counsel; Mission Bay South Redevelopment Project Area.

APPROVED AS TO FORM:

  
James B. Morales  
Agency General Counsel

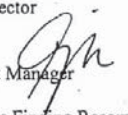


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MEMORANDUM

126-03405-001  
October 12, 2005

To: Marcia Rosen  
Executive Director

From: Amy Neches   
Senior Project Manager

Re: Secondary Use Finding Recommendation for UCSF Hospital in Mission Bay South Redevelopment Area

Pursuant to a Term Sheet dated as of August 1, 2005 between the City, the Agency and The Regents of the University of California, which was endorsed by the Commission on May 17, 2005 (Resolution No. 81-2005), the Agency is considering agreements, including a Memorandum of Understanding ("MOU"), under which the University of California at San Francisco ("UCSF") may develop a hospital in the Mission Bay South Redevelopment Area ("Redevelopment Area").

The UCSF hospital would be located on Blocks 36-39 within the Commercial Industrial land use district of the Redevelopment Area, as described in the Mission Bay South Redevelopment Plan (the "Plan"). The UCSF hospital development may also include all or portions of Block X3 within the Commercial Industrial/Retail land use district. In both of these land use districts "public structure or use of a non-industrial character" is permitted as a subset of "Other Uses" as a secondary use.

The University of California, of which UCSF is a component, is a public body specifically created by the California Constitution. A hospital or medical center is described in §790.44 of the San Francisco Planning Code as a "public or private institutional use which provides medical facilities for inpatient care, medical offices, clinics, and laboratories." The proposed UCSF hospital development will include these components. The hospital will not including manufacturing, warehousing, or distribution of goods, and can reasonably be considered a "non-industrial use." This interpretation is supported by the San Francisco Planning Code, under which hospitals are permitted as a conditional use in all C districts and NC-3 districts.

Section 302 of the Plan provides as follows:

"Secondary uses shall be permitted in a particular land use district...provided that such use generally conforms with redevelopment objectives and planning and design controls established pursuant to this Plan and is determined by the Executive Director to make a positive contribution to the character of the Plan Area, based on

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a finding of consistency with the following criteria: the secondary use, at the size and intensity contemplated and at the proposed location, will provide a development that is necessary or desirable for, and compatible with, the neighborhood or the community."

Staff believes that the UCSF hospital is appropriate as a secondary use, based on the following:

- 1) The proposed hospital will be located on approximately 10 to 14 acres of land adjacent to the Mission Bay UCSF research campus that have been determined to be blighted and are affected by environmental contamination. UCSF plans close integration of its basic academic research activities with the teaching, research and patient care activities within the planned hospital. The plan for development of the UCSF hospital generally conforms to the Redevelopment Project Objectives as described in §103 of the Plan, particularly with objective A of eliminating blight and correcting environmental deficiencies, and objective B of retaining and promoting UCSF's research and academic activities within the City and County of San Francisco.
- 2) Under the MOU, the UCSF hospital development will generally conform to the planning and design controls established pursuant to the Plan, including the street layout, setbacks, and streetscape plan. To accommodate the needs of the hospital, the MOU will include specific adjustments to the existing height and bulk standards of the Commercial Industrial and Commercial Industrial/Retail land use zones of the Mission Bay South Design for Development. These changes will lower the maximum height of a hospital to 105 feet, compared to the existing 160 foot limit, but would allow for somewhat greater bulk in the mid-rise area. These changes have been studied and presented to the public at two well-noticed public meetings. In staff's opinion, the proposed adjustments represent reasonable variation from the existing standards, which will have little if any negative effect on the surrounding community in the context of overall Mission Bay development.
- 3) The hospital will contain no more development, as calculated under the Plan in leasable square feet, than would have been permitted under the principal uses permitted in these land use districts, and there will be no net increase in the overall size of development within the Redevelopment Area. The hospital will be developed on parcels that would otherwise likely have been developed with commercial office or life science/biotechnology uses. These uses would have been constructed in buildings of reasonably similar size and appearance as the proposed hospital use.
- 4) The proposed hospital will allow UCSF to continue to provide needed tertiary health care to the residents of San Francisco in a modern seismically safe hospital, and will assist UCSF in furthering its research and academic mission.

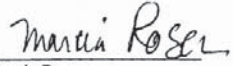


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Based on these factors, staff believes that it is appropriate to make the finding of consistency cited above, and recommends that the Executive Director permit the development of the UCSF hospital as a secondary use in Mission Bay, subject to the approval of the MOU by the Commission.

Approved on October 12, 2005:

  
Marcia Rosen  
Executive Director

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Law Offices of  
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November 2, 2015

Ms Tiffany Bohee  
OCII Executive Director  
c/o Mr. Brett Bollinger  
San Francisco Planning Department  
1650 Mission Street, Suite 400  
San Francisco, CA 94103  
[warriors@sfgov.org](mailto:warriors@sfgov.org)

**Re: Comments on Final Subsequent Environmental Impact Report for the  
Warriors Arena Project Re Air Quality, Transportation, Hydrology, Water  
Quality, Biological, and Noise Impacts**

Dear Ms Bohee and Mr. Bollinger:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project"). The Mission Bay Alliance objects to approval of this Project and certification of the Final Subsequent Environmental Impact Report (FSEIR).

The Alliance incorporates by reference, as comments on the FSEIR and Responses to Comments (RTC), the contents of Exhibits A through S identified in the list of exhibits at the end of this letter.

**General Comment 1.** Many of the responses to comments reflect a basic misunderstanding of the relationship, under CEQA, between determination of significance, the feasibility and effectiveness of mitigation measures, and whether social or economic considerations outweigh environmental harm. For projects for which an EIR has been prepared, both the EIR and the mandatory findings required by CEQA section 21081, the analysis starts with whether an impact is significant. A finding of significance triggers the obligation to identify and adopt feasible mitigation measures that are effective in substantially reducing the significant impact. Once all feasible and effective mitigation measures have been identified and adopted, if the impact remains significant, the agency may approve the project if it finds that social or economic considerations outweigh environmental harm.

Each of these steps in the analysis is distinct. Here, many of the RTC's responses to comments conflate and confuse these steps, and thereby undermine the integrity of the analysis. One

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[LC-ERP-1]



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example discussed below is Response NOI-2a regarding construction noise thresholds.

**General Comment 2.** The October 23, 2015, notice of publication of the Response to Comments informed the public they would have no further opportunity to comment on the FSEIR/RTC. But the OCII hearing agenda for November 3, 2015 published on October 29, 2015, suggests that public comment on the SFEIR/RTC will be heard at the hearing. The October 23, 2015, notice of publication is inconsistent with CEQA section 21177(a), which contemplates public comment on EIRs up to the end of the hearing at which the project is approved. Therefore, the October 23, 2015, notice of publication has frustrated the ability of the public to comment. The OCII should remedy this misstep by continuing its November 3, 2015, hearing on this Project and re-noticing the hearing with full disclosure that the public may comment on the FSEIR/RTC.

### I. Air Quality Impacts.

The Alliance's comments on the Responses to Comments related to Air Quality issues are set forth in the November 2, 2015, letter from John Farrow attached as Exhibits A and B, the November 2, 2015, letter from Greg Gilbert attached as Exhibit C, and in this letter.

#### A. The Response to Comment AQ-6a is Inadequate.

Mitigation Measure M-AQ-1 requires the use of Tier 2 or better engines for all off-road equipment. The "step-downs" from Tier 4 to Tier 3 to Tier 2, or from Tier 3 to Tier 2, are allowed when Tier 4 (or Tier 3) is not "commercially available." But step-downs from Tier 2 are not available under any scenario.

Mr. Gilbert's July 19, 2015, letter commented that this mitigation is not feasible because there is not enough Tier 2 or better equipment available for the Project Sponsor to use. The response to this comment states that "in 2014 approximately 59 percent of all off-road equipment in the state were operating with Tier 2 engines or better" and, therefore, it appears the measure is feasible. (RTC, p. 13.13-53.)

But the response does not specify whether the diesel off-road equipment sampled included equipment in private or government fleets that are not potentially available to the Project Sponsor to use, or alternatively, whether it consisted only of equipment that is potentially available to the Project Sponsor to use. If the former is true, then the 59% sampling result is meaningless, because the relevant population to sample is equipment that is potentially available to the Project Sponsor to use. A review of Figure 4 in the document cited in footnote 20 on RTC page 13.13-53 appears to indicate that the population of equipment sampled is all equipment, including equipment that is not potentially available to the Project Sponsor to use. Therefore, the 59% sampling result appears to be meaningless.

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Moreover, even if the population of equipment sampled is equipment that is potentially available for the Project Sponsor to use, the idea that the Project Sponsor will be able to acquire 100% of its equipment at Tier 2 or better when only 59% of the potentially available equipment is Tier 2 or higher is illogical. It is more plausible that the Project Sponsor will be able to acquire only about 59% of its equipment at Tier 2 or better.

As stated in Mr. Gilbert's November 2, 2015, report attached as Exhibit C:

Further, the statistic provided by the Lead Agency does not say that 59% of all construction equipment vehicles in CA will meet Tier 2 or better status – rather, it says that all **offroad** vehicles do (as of 2014). All offroad vehicles are not all construction vehicles; in fact, construction vehicles are a small subset of all offroad vehicles. Moreover, the rate of compliance for construction vehicles, particularly large, expensive, long-lived ones (scrapers, excavators, pile drivers, etc.) will be far lower than the average for all offroad vehicles that include such non-construction equipment as ground support vehicles at airports, agricultural forklifts, and myriad other offroad, nonconstruction equipment types. Because the statistic represents all offroad vehicles in CA and not construction vehicles, it cannot be used to even roughly determine the proportion of construction vehicles supposedly available to the project with Tier 2 engines, VDECs, and 40% NOx control; hence, the statistic is irrelevant to the Events Center project environmental review and does nothing to refute our concerns expressed clearly at the SDEIR review stage.

(Exhibit C, p. 11.)

#### B. The Response to Comment AQ-6e is Inadequate.

Mr Gilbert's July 19, 2015, letter commented that:

Further, M-AQ-1 specifies numerous sub-part requirements (A 1 through 5) to be included in the Construction Emissions Mitigation Plan, and in each case compliance with those sub-parts is left to the "project sponsor". So, too, is compliance with the Measure's additional duties required under M-AQ-1 items B and C. This is not appropriate when considering the extent, complexity, and costs that will be incurred for effective mitigation measure compliance across the 26-month construction period; permitting the project sponsor to create, implement, report, and determine compliance with the Measure is akin to having the fox guard the henhouse and must not be allowed. As written, the measure is not enforceable due to the subjective, undefined nature of "Air Quality Specialist" who will approve the project sponsor's Construction Emissions Mitigation Plan. Further, it is unacceptable that the Measure will permit the project sponsor to determine compliance with each of the measure's

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components, record and report information signifying compliance, and then, under part C certify their own compliance with the Plan and its various requirements. We have inspected construction project sites, under air district contract, to determine compliance with air district-imposed construction equipment mitigations and have found uniformly poor compliance; to exemplify, at one residential subdivision project in south Sacramento County we determined that only one offroad construction vehicle out of nearly twenty were actually compliant with the mitigation requirements that had been imposed on the project by the Lead Agency. This is because there has traditionally been very little, if any, post- EIR follow-through to verify mitigation compliance by Lead Agencies or by the local air district after the CEQA project has been approved for development and construction has started. Knowing this, construction and development firms commonly let air quality mitigations go unmet, although records purporting to show compliance can be easily formulated and submitted post hoc in order to fulfill a paper requirement. Without an independent, qualified 3rd party contractor onsite each day to track, verify, and record emissions- and activity-related information on construction vehicles used at the project site to ensure the EIR's mitigations are implemented effectively, the project is very unlikely to produce more than a token of the emission reductions claimed in the DSEIR.

The Responses to Comments (RTC) codes this comment as "AQ-6e." (Volume 5, p. 13.13-60.) The response to comment AQ-6e states:

The City and OCII have successfully monitored implementation of emissions minimization requirements on numerous construction projects over the past several years. Examples of past and ongoing projects with CEMP emissions minimization requirements include Candlestick Point-Hunters Point Shipyard Phase II Development Project, which requires staged increases in the percentage of Tier 4 equipment; the Seismic Upgrade of BDPL Nos. 3 & 4 at Hayward Fault Project, which had one year of tiered engine requirements for on-road spoils hauling trucks and off-road construction equipment; and the Pacific Rod and Gun Club Upland Soil Remedial Action Project, which also had tiered engine requirements for off-road construction equipment.

(Volume 5, p. 13.13-60.)

The RTC's assertion is made without any evidentiary support. Well before the Response to Comments issued, the Alliance attempted to discover if the City or the OCII have any evidence to support the DSEIR's assumption that the Project's compliance with adopted air quality mitigation measures will be effectively monitored. In this regard, on August 13, 2015, I submitted a request to the City and OCII for:

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All records relating to monitoring or enforcement of compliance with mitigation measures adopted to reduce potentially significant air quality impacts of development projects approved by the City, the Redevelopment Agency of the City and County of San Francisco, or the Successor Agency to the Redevelopment Agency of the City and County of San Francisco, including any records reflecting audits of such compliance.

(See Exhibit D attached to this letter). In my email to the OCII and City dated September 30, 2015, I provided further definition to this request, stating:

With respect to all construction projects in these areas for which the EIR identified significant air quality impacts from construction activities that could not be entirely avoided, the City, Redevelopment Agency, or the Successor Agency would have adopted mitigation measures to reduce the projects' significant air quality impacts and would have adopted a Mitigation Monitoring and Reporting Plan ("MMRP"). These MMRPs should have resulted in the generation of reports documenting the project's compliance, or lack thereof, with these adopted air quality impact mitigation measures. I want to obtain these reports."

(See my email exchanges between the OCII and City dated September 11 through September 30 of 2015, attached as Exhibit E.)

Despite these requests, neither OCII nor the City have produced a single record showing they have either themselves conducted monitoring of CEQA required air quality mitigation measures or have taken steps to ensure that Project Sponsors tasked with self-monitoring their own compliance have faithfully done so. The agencies' failure to produce any such records leads inescapably to the conclusion that Mr. Gilbert's observation applies to the OCII and the City, and no such records exist because no such monitoring has been done.

*Once again, I hereby request that the OCII and the City produce any such records, and if such records exist, continue the OCII's hearing regarding certification of the SEIR until a date after the records are produced. If such records exist, certification of the SEIR before producing the records would deny my client a fair trial under subdivision (b) of section 1094.5 of the Code of Civil Procedure.*

## C. The Response to Comment AQ-7 is Inadequate.

Comment AQ-7 is that the per ton charge for emission offsets is too low to achieve complete offset of the Project's emissions. The response is cagey on this point, but it appears the BAAQMD agreed with the comment, because the response states:

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[LC-AQ-1]



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SF Planning has been in communication with BAAQMD with regard to its suggestion that a higher fee may be warranted to offset project emissions to a less than significant level and found that BAAQMD could not establish that an increased rate beyond that of the Carl Moyer Program plus a five percent administrative fee could meet the “rough proportionality” standard required under CEQA.

(RTC, p. 13.13-67.) The RTC’s rationale for contending that a higher offset fee would not meet the “rough proportionality” standard is that offsets fees in other areas of the state are not higher than the offset fee proposed in the DSEIR. This is an error of law. The “rough proportionality” requirement requires a comparison of the cost of the mitigation to the degree of severity of the impact. The fee charged in other areas of the state are irrelevant to “rough proportionality.”

### D. Changes to the Project Since Publication of the DSEIR Require Recirculation of a Revised DSEIR Due to New and More Severe Significant Impacts.

Under CEQA, if the project changes after publication of the Draft EIR, and these changes create a new significant impact not identified in the Draft EIR, or a substantial increase in severity of a significant impact that was identified in the Draft EIR, the lead agency must recirculate the draft EIR for public comment. (CEQA section 21092.1.)

Here, the RTC describes a number of “construction refinements”, including using dewatering generators, using a soil treatment pug mill, and removing rapid impact compaction from the construction plan. With respect to the air quality impacts of these “construction refinements” the RTC states:

The addition of the construction refinements would not substantially increase (approximately 2 percent for ROG and 4 percent for NOx) the average daily construction-related emissions disclosed in the Draft SEIR. This would not result in a substantial increase in the severity of the previously identified significant and unavoidable impact, and the same mitigation measures would apply requiring the project sponsor to minimize construction emissions.

(RTC, p 12-22.)

The RTC also describes a new variant, the Muni UCSF/Mission Bay Station Variant, and discloses that:

The Muni UCSF/Mission Bay Station Platform Variant would not substantially increase (approximately 2 percent for ROG and 5 percent for NOx) the average daily emissions disclosed in the Draft SEIR for the proposed project (see Table 5.4-7, page 5.4-31). Furthermore, Mitigation Measure M-AQ-1 (Construction Emissions

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[LC-AQ-8]

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Minimization) would also apply to the variant. While the estimated construction emissions under the variant shown in Table 12-2 are slightly higher than those identified for the proposed project in the Draft SEIR, this impact is not substantially more severe than the previously identified significant and unavoidable impact.

(RTC, p 12-22.)

There are several problems with these assertions. First, the RTC does explain whether construction refinement caused increases of 2 and 4 percent for ROG and NOx, respectively, are included within or additive to the Platform Variant caused increases of 2 and 5 percent for ROG and NOx. Without this information, the public does not know what additional quantum of ozone pollution the RTC deems insubstantial.

Assuming for the moment that the construction refinement caused increases are included within or the Platform Variant caused increases, the RTC offers no rationale why the 2 and 5 percent increases are not considered a “substantial” increase in the severity of the previously identified significant effect that Project construction will have on ozone precursor pollution. The RTC authors apparently believe these number speak for themselves. They do not. In fact, reliance on these appears to reflect a silent assumption that these increases above the previously identified quantities of emissions for these pollutants is “de minimis.” It must be remembered, however, that these increases are not above a previously identified less-than-significant quantity of emissions; the previously identified quantities were significant!

The RTC thus commits the exact errors of law rejected by the Court of Appeal in *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98 (“CBE”), i.e., using a “de minimis” rationale or any type of simple numerical ratio of the incremental impact compared to the pre-existing impact. “[T]he relevant question... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether ‘any additional amount’ of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant.” (Id. at p. 120; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-721.)

These increases should be considered substantial and the SEIR recirculated for public comment. Instead, the October 23, 2015, notice of publication of the Response to Comments informed the public they would have no opportunity to comment on the environmental effects of these changes in the Project.

## II. Transportation Impacts.

The Alliance’s comments on the Responses to Comments related to Transportation issues

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are set forth in the November 2, 2015, letter from Dan Smith attached as Exhibit F, and the November 2, 2015, letter from Larry Wymer attached as Exhibit G.

### III. Water Quality Impacts, Water Quality Related Utility Impacts, and Biological Impacts.

The Alliance's comments on the Responses to Comments related to Air Quality issues are set forth in the November 2, 2015, letter from Matt Hageman attached as Exhibit H; the November 2, 2015, letter from Erik Ringelberg and Kurt Balasek attached as Exhibit I; the November 2, 2015, letter from Erik Ringelberg attached as Exhibit J; the July 16, 2015 Technical Memorandum Erik Ringelberg and Kevin Grove attached as Exhibit K; and the October 29, 2015, Draft Waters and Wetland Delineation Report Proposed Mission Bay Development, Blocks 29-32 San Francisco, California, by Erik Ringelberg and Kevin Grove of BSK Associates attached as Exhibit L.

#### A. The Response to Comment UTIL-3 is Inadequate.

The response to comment UTIL-3 states:

Impact C-UT-2 explains that the project, in combination with past, present, and foreseeable future development in the drainage area of the Mariposa Pump Station, would require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. As the owner and operator of the combined sewer system, the SFPUC is responsible for design and construction of the needed improvements to the wastewater facilities in the Mariposa sub-basin. The SFPUC has not identified the specific improvements that would be required to accommodate wastewater flows from the reasonably foreseeable projects and site-specific analysis cannot be performed until they are identified by the SFPUC. (SEIR, p. 5.7-15.) For this reason, site-specific environmental review for the future improvements cannot be included in the SEIR.

Although it is not possible to analyze the impacts of construction of the permanent pump station improvements in greater detail than provided in the SEIR because the SFPUC has not identified specific improvements required, Impact C-UT-2 discloses the type of environmental impacts that would be expected from construction of new wastewater treatment facilities or expansion of existing facilities and the likelihood that such impacts will occur. This discussion satisfies CEQA's requirements for cumulative impacts analyses. (CEQA Guidelines, § 15130, subd. (b); see also Association of Irrigated Residents v. County of Madera, supra, 107 Cal.App.4th at p. 1403 [cumulative impacts analysis satisfies CEQA when it "sets forth the possible cumulative impacts . . . and then analyzes the likelihood of the actual occurrence of such impacts"].)

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Any future permanent improvements to address cumulative wastewater impacts are not part of the project and are not a reasonably foreseeable consequence of the project itself. (SEIR, pp. 5.7-11 to 5.7-13 [the existing wastewater treatment facilities have sufficient capacity for the proposed project by itself].) Rather, as explained in Impact C-UT-2, the improvements would be necessary only as a result of the combined demand on the wastewater system from the project in combination with other future cumulative development projects in the drainage area of the Mariposa Pump Station. Future improvements in the SFPUC's wastewater system are beyond the project sponsor's control.

(FSEIR, Vol. 5, pp. 13.17-11.)

This response essentially says that the Project is "first come, first served" for purposes of using up remaining sewer system capacity in the Mariposa sub-basin. But the assertion that the cumulative future projects listed in the referenced report by Hydroconsult Engineers (i.e., Blocks 25b, 33-34, 40 and Hospital Phase 2),<sup>1</sup> will be operational further in the future than the Project is unsupported. In fact, these cumulative future projects are not even listed in the cumulative future projects list on page 5.1-8 - 10. As a result, the SEIR's assertions are unsupported and untestable.

The response's assertion that "Future improvements in the SFPUC's wastewater system are beyond the project sponsor's control" is also unsupported; in fact, it is contradicted by overwhelming evidence. Where it is advantageous to the project, the SEIR assumes the City will do things over which the project sponsor has no control to support the project, e.g., comply with its NPDES permit, provide transportation infrastructure to handle the crowds, etc. Indeed, the City is named as a responsible party or is directly involved in dozens of mitigation measures identified in the proposed Mitigation Monitoring and Reporting Program.<sup>2</sup> But here, the SEIR takes an inconsistent position, disclaiming any Project Sponsor control over a different matter within the City's control, i.e., expansion of the sewer system, apparently for no reason other than it is advantageous to the project

<sup>1</sup>Hydroconsult Engineers, Inc. 2015. Combined Sewer Impact Analysis, Golden State Warriors Arena EIR. February 25, referenced on RTC, p. 13.17-15, n 8.

<sup>2</sup>One example is Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts: "The project sponsor shall work with the City to pursue and implement commercially reasonable, if feasible, additional strategies (i.e., in addition to those included in the project TMP) to reduce transportation impacts. In addition, the City shall pursue and implement, if feasible, additional strategies to that could be implemented by the City or other public agency (e.g., Caltrans)."

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to do so.<sup>3</sup>

**B. The Responses to Comments Hyd-3 - Hyd-6 are Inadequate.**

My July 24, 2015 comment letter regarding hydrology, water quality and biological impacts observed that the DSEIR's heavy reliance on City compliance with its NPDES permit to ensure the Project's combined stormwater and sewage impacts are less than significant is an unsupported assumption. The RTC simply repeats this unsupported assumption many, many times. Some examples follow.

Implementation of these actions in compliance with the requirements of the NPDES permit would ensure that water quality impacts would be less than significant.

(RTC at p. 13.21-17.)

It is reasonable to conclude that compliance with the Bayside NPDES permit would not result in adverse water quality effects because the permit specifies discharge prohibitions, dry-weather effluent limitations, wet-weather effluent performance criteria, and receiving water limitations that are protective of the beneficial uses and associated water quality objectives for San Francisco Bay, the receiving water. Monitoring and reporting requirements to demonstrate compliance with water quality objectives are also specified in the permit.

(RTC at p. 13.18.)

Compliance with these plans, policies, and water quality criteria and objectives as enforced through the Bayside NPDES permit ensures that discharges of treated effluent from the SEWPCP are protective of water quality in San Francisco Bay. Therefore, compliance with the Bayside NPDES permit effluent and receiving water limitations is protective of water quality and it is appropriate to use the requirements of the NPDES permit as a threshold of significance for effluent discharges from the SEWPCP. Using this threshold, the SEIR properly concluded that water quality impacts related to effluent discharges from the SEWPCP are less than significant as described in Impact HYD-6 (pp. 5.9-33 to 5.9-41).

(RTC at p. 13.21-19.)

<sup>3</sup>The San Francisco Public Utilities Commission is a department of the City and County of San Francisco.

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My previous comment requested that the City support this assumption with evidence. The RTC fails to do so. Therefore, the Alliance has gathered that evidence, and it shows the City has a continuous, consistent, and pervasive pattern of violating its NPDES permits. Exhibit M, attached, details these violations. Therefore, the SEIR's assumed basis for finding water quality impacts less than significant is false.

My July 24, 2015 comment letter regarding hydrology, water quality and biological impacts observed that the DSEIR's threshold of significance for the effect of untreated wastewater discharges to the Bay, which consists of limiting such discharges to 10 per year, ignores the quantity and duration of such discharges. The response stresses the work the City must do to prevent municipal wastewater from degrading water quality in the Bay, stating:

As described in the permit, and on p. 5.9-20 of the SEIR, the SFPUC must implement the following nine minimum controls in accordance with the Combined Sewer Overflow Policy to reduce the frequency of combined sewer discharges and their effect on receiving water quality:

1. Conduct proper operation and regular maintenance programs for the combined sewer system and combined sewer discharge outfalls;
2. Maximize the use of the collection system for storage;
3. Review and modify pretreatment programs to minimize the effect of non-domestic discharges to the collection system;
4. Maximize flow to the SEWPCP and North Point Facility for treatment;
5. Prohibit combined sewer discharges during dry weather;
6. Control solids and floatable materials in combined sewer discharges;
7. Develop and implement a pollution prevention program focused on reducing the effect of combined sewer discharges on receiving waters;
8. Notify the public of combined sewer discharges; and
9. Monitor to effectively characterize combined sewer discharge effects and the efficacy of combined sewer discharge controls.

These controls represent the best conventional and best available technology economically achievable as required under the Clean Water Act. The City is currently implementing these controls as required by the Combined Sewer Overflow Control Policy.

(RTC at p. 13.21-26.) This is all good and important work, but it is non-responsive to the Alliance's comment. The fact that these measures are the best the City can, or is legally required to do, is not relevant to whether the impact is significant. It may be relevant to whether further mitigation of the impact is feasible or effective, but these considerations cannot affect whether the impact is deemed significant.

The top two paragraphs on page 13.21-27 of the RTC assert that all waste water is treated.

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This is beside the point that the City anticipates and is allowed by its NPDES permit up to 10 discharges per year of waste water subject to only primary, rather than secondary, treatment.

The RTC appears to reject the Alliance's comment that the SEIR ignores duration and quantity, not just frequency, of the 10 discharges per year on grounds the NPDES permit does not address the duration and quantity of these discharges. But the issue here is whether impacts on Bay water quality are significant. CEQA does not allow the use of the NPDES permit terms as an absolute proxy for that determination.

### C. The Response to Comment Bio-5 is Inadequate.

#### 1. Waters of the U.S. and Waters of the State are Present on the Site

The FSEIR argues that the wetland feature on the site is not a state or federal wetland. Yet Response BIO-5 provides no evidence of consultation with either the U.S. Army Corps of Engineers ("Corps") or the State Water Resources Control Board ("SWRCB") regarding the status of the feature. With respect to the jurisdiction of the Corps, the FSEIR claims that under draft regulations that are stayed, the feature would be exempted from jurisdiction. This interpretation is not supported by any specific language in the referenced Sixth Circuit Court of Appeals decision, and thus has no authority.

The FSEIR also argues that the site was never abandoned such that the feature would have been "recaptured" as a wetland under the Clean Water Act. Yet no explanation is provided for the lack of any activities at the site or changes to the wetland feature between 2007 and 2014, a period of seven years. This inactivity at the site is demonstrated in the plates included in the July 16, 2015, BSK Technical Memorandum Regarding the Proposed Warrior Arena Wetland Features. (Attached as Exhibit K, see Figures 2a-2e.)

The FSEIR also makes the circular argument that the existence of priority pollutants within the wetland feature is irrelevant because the City does not consider the wetland feature to be jurisdictional. Again, no credible evidence is provided to support the argument that the wetland is not subject to federal jurisdiction in the first place.

The FSEIR incorrectly relies exclusively on federal law and ignores the broader jurisdiction of the state over all of its waters, including wholly constructed features. As such the SEIR fails to adequately describe the site physical features, the relevant regulatory requirements, and the avoidance, minimization and mitigation requirements it would be subject to. State waters are more broadly defined than waters of the U.S.: "'Waters of the state' means any surface water or groundwater, including saline waters, within the boundaries of the state." (Wat. Code, 13050, subd. (e).) This has been interpreted by the SWRCB to literally "include all waters within the state's boundaries, whether private or public, including waters in both natural and artificial channels."

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Contrary to RTC BIO-5, the fact that the remediation at the site was at one time overseen by the San Francisco Regional Water Quality Control Board ("RWQCB") has no bearing on whether the feature would be considered jurisdictional by the SWRCB. While the SWRCB may choose to follow jurisdictional determinations by the Corps, the SWRCB has much broader authorities and may also assert jurisdiction under the parameters of Water Code section 13050, subdivision (e). As the FSEIR cannot point to any jurisdictional determination by the Corps, there is nothing for the SWRCB to follow; therefore, it would follow its own regulations and orders. (Executive Order W-59-93 attached as Exhibit N; State Water Resources Control Board Memorandum, January 25, 2001, Effect of SWANCC v. United States on the 401 Certification Program attached as Exhibit O; State Water Resources Control Board Guidance, June 25, 2004, for Regulation of Discharges to "Isolated" Waters attached as Exhibit P; State Water Resources Control Board Order NO. 2004-0004-DWQ attached as Exhibit Q; State Water Resources Control Board Resolution NO. 2008-0026 attached as Exhibit P).

The FSEIR's attempted rebuttal of the need for a Coastal Zone Management Act ("CZMA") consistency determination is also incorrect. In addition to claiming that the requirement does not apply because the City (not the Corps or the SWRCB) has determined that the feature is not jurisdictional, the FSEIR argues that filling the wetland would have no effect on resources in the coastal zone. As explained below, however, the wetland complex has significant habitat value to biological resources and supports coastal resources.

To further substantiate the existence of the wetland features on the site, BSK Associates has prepared a desktop delineation for submittal to the Corps to finally resolve the issue of jurisdiction. (See Exhibit L.) The exact nature of the wetland feature is described in the attached report, which determines that there are 0.51 acres of permanent wetlands at the site. The delineation also explains that the wetland provides the following nexus functions with the San Francisco Bay: (i) Sediment trapping, (ii) Nutrient recycling, (iii) Pollutant trapping, transformation, filtering, and transport, (iv) Retention and attenuation of flood waters, (v) Runoff storage, (vii) Export of organic matter, (viii) Export of food resources, and (ix) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species.

The purpose of environmental review is to inform the public of the likely effects of carrying out a project. Here, the IS/NOP failed to accurately describe the wetland on the site, or to even provide a process by which the feature would be further investigated and the appropriate mitigation required. The information submitted by the Alliance constitutes substantial evidence of a fair argument that the Project will have a significant adverse effect on biological resources. In the alternative, per CEQA section 21166 and CEQA Guidelines section 15162, the facts described above constitute a change in circumstances since the 1998 SEIR involving, and significant new information showing, a new significant effect not previously analyzed in the 1998 SEIR. Under either standard, the OCH and the City must prepare and circulate for public comment an environmental impact report to review the Project's impacts on this wetland resource.

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IV. Noise Impacts.

The Alliance's comments on the Responses to Comments related to Air Quality issues are set forth in the November 2, 2015, letter from Frank Hubach attached as Exhibit S and in this letter.

A. The Construction Refinements and New Project Require Recirculation.

As noted above, the RTC describes a number of "construction refinements," including using dewatering generators, using a soil treatment pug mill, and removing rapid impact compaction from the construction plan and a new Project Variant. With respect to the air quality impacts of these construction refinements and new Project Variant, the RTC finds these changes do not create a new significant noise impact, or a substantial increase in severity of a previously identified significant noise impact, and therefore, recirculation is not required.

As described in the letter from Frank Hubach (Exhibit S), the construction refinements and new Project Variant will create new significant impacts. The RTC's findings to the contrary reflect the same flawed "existing ambient plus project increment" thresholds of significance discussed in my previous comment letter (dated July 25, 2015) regarding noise impacts.

B. The Response to the Alliance's Comments Regarding Construction and Operational Noise Are Inadequate.

Response NOI-2a regarding construction noise thresholds states:

For this project, as discussed on pages 5.3-17 and 5.3-18, the SEIR applies a threshold of a 10 dBA increase over the existing noise levels, which represents a perceived doubling of loudness as the threshold representing a substantial temporary increase in noise levels warranting implementation of construction noise control measures. A more liberal threshold was developed to be applied to construction impacts given that construction is an inherently noisy activity and application of a lesser threshold, such as the 5 dBA increase applied to operational impacts which denotes a readily perceptible increase, would be exceeded by the most routine construction activity and is therefore not considered to be a realistically applicable criterion for construction. Additionally, a 10 dBA increase threshold is codified in Section 2909 (c) of the Police Code as a noise limit for noise affecting public property. This increase is an appropriate threshold for construction activity as it reflects OCII's understanding that *allowable* increases in noise levels can be dependent on a number of factors, including source and the duration of the noise and the receiver of the noise.

(RTC, p. 13.12-7 (italics added).) The response regarding operational noise thresholds is similar. ✓

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(RTC, p. 13.12-15.)

This is an example of the General Comment described above. This response has injected the question of what is "allowed" into the determination of "significance." The question of what is allowed is the final step in the CEQA process, and involves weighing considerations relating to the social and economic benefits of the Project. Injecting it into the first step subverts the integrity of the entire analysis.

This conflation of the distinct steps in the analysis also explains why the RTC's insistence on using the San Francisco Police Code's regulatory requirements (i.e., the City's final resolution of what is allowed and what is not allowed) as thresholds of significance is inconsistent with CEQA. The Police Code's regulatory requirements reflect the City's effort to balance the protection of people from harmful noise against the need for social and economic activity. That balance does not necessarily reflect the point at which impacts become significant. Under CEQA, such balancing is also required, but not at the point where significance is determined. In short, even where the lead agency believes an activity should be "allowed" because the social or economic considerations outweigh the environmental harm, the EIR must still disclose whether the impact is significant.

The RTC's reliance on Appendix G to the CEQA Guidelines as support for its use of Police Code's regulatory requirements (RTC, p. 13.12-15) is misplaced because the Guidelines cannot authorize a violation of CEQA.

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

List of Exhibits

- A. November 2, 2015, letter from John Farrow with exhibits 1 - 4 thereto.
- B. Exhibits 4-8 to November 2, 2015, letter from John Farrow described in Exhibit 1A above.
- C. November 2, 2015, report by Greg Gilbert, Autumn Wind Associates.
- D. August 13, 2015, Public Records Act Request from Thomas N. Lippe to OCII and City of San Francisco.

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- E. Email exchanges between Thomas N. Lippe and the OCII and City of San Francisco dated September 11, 2015, through September 30, 2015.
- F. November 2, 2015, letter from Dan Smith.
- G. November 2, 2015, letter from Larry Wymer.
- H. November 2, 2015, letter from report from Matt Hageman.
- I. November 2, 2015, letter from Erik Ringelberg and Kurt Balasek.
- J. November 2, 2015, letter from Erik Ringelberg.
- K. July 16, 2015, BSK Technical Memorandum Regarding the Proposed Warrior Arena Wetland Features by Erik Ringelberg and Kevin Grove.
- L. October 29, 2015, Draft Waters and Wetland Delineation Report Proposed Mission Bay Development, Blocks 29-32 San Francisco, California, by Erik Ringelberg and Kevin Grove of BSK Associates.
- M. Summary of NPDES permit violations by the City of San Francisco since 2004 with supporting documents.
- N. Executive Order W-59-93
- O. State Water Resources Control Board Memorandum, January 25, 2001, Effect of SWANCC v. United States on the 401 Certification Program
- P. State Water Resources Control Board Guidance, June 25, 2004, for Regulation of Discharges to "Isolated" Waters
- Q. State Water Resources Control Board Order NO. 2004-0004-DWQ.
- R. State Water Resources Control Board Resolution NO. 2008-0026.
- S. November 2, 2015, letter from Frank Hubach.

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**EXHIBIT A**



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November 2, 2015

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Law Offices of Thomas N. Lippe, APC  
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San Francisco, CA 94105  
[lippelaw@sonic.net](mailto:lippelaw@sonic.net)

Re: **Air Quality Impacts** - Comments on Final Subsequent Environmental Impact Report for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (Warriors Arena Project); San Francisco Planning Department Case No. 2014.1441E; State Clearinghouse No. 2014112045

Dear Mr. Lippe:

Acting as consulting counsel to you, we have reviewed the analysis of Toxic Air Contaminants (TACs) in the Draft and Final Subsequent Environmental Impact Report for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (the "Project"). For the reasons set forth below, we concur with your determination that the assessment TACs in the DSEIR and FSEIR (collectively, SEIR) is inconsistent, confusing, and legally erroneous and that it fails adequately to disclose the Project's impacts. This letter incorporates by reference the November 2, 2015 letter report authored by Paul Rosenfeld and Jessie Jaeger (attached as Exhibit 1).

**I. The SEIR fails to provide a project-specific assessment of TAC health risks.**

The DSEIR fails to provide a project-specific assessment of TAC health risks because it does not adopt or apply a threshold of significance for the project-specific impact. The SEIR's only threshold of significance for TACs is a threshold for cumulative impacts. The SEIR's threshold would find a considerable contribution to a significant cumulative impact only if (1) there were 100 excess cancers from all sources and (2) the project itself contributed 10 excess cancers. The SEIR's approach is wrong as a matter of law because it conflates project-specific and cumulative analysis and because it assumes without justification that the only relevant threshold is the threshold for whether the project makes a considerable contribution to a significant cumulative impact.

CEQA requires that an EIR assess both project-specific and cumulative impacts. (CEQA Guideline, §§ 15126.2, 15130.) Because assessment of project-specific and assessment of cumulative impacts are a distinct obligations, they require a distinct set of

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thresholds of significance. Whereas a project-specific analysis requires only that an EIR compare a project's effects to a single threshold, cumulative analysis requires two thresholds because cumulative impact analysis is a two-step process. In cumulative analysis an agency must separately (1) determine whether the impacts of the project in combination with those from other projects with related impacts are cumulatively significant by comparing that total impact to a "step-one" threshold, and (2) if so, determine whether the project's own effect is a considerable contribution by comparing the project's own effect to a "step-two" threshold. (CEQA Guideline, § 15130(a); *see* Kostka and Zischke, *Practice Under the California Environmental Quality Act* (2nd Ed., 2011 Update), §§ 13.39, 15.52; Remy, Thomas, et al, *Guide to CEQA* (11th Ed., 2007), pp. 474-475.)

CEQA recognizes that the thresholds used for project-specific analysis and for the second step of cumulative analysis differ. The step-two threshold of significance in cumulative analysis is used to determine whether the project's contribution to a significant cumulative impact is "considerable," i.e., "whether 'any additional amount' of effect should be considered significant in the context of the existing cumulative effect." (*Communities for a Better Environment v. California Resources Agency* ("CBE") (2002) 103 Cal.App.4th 98,119.) Even if a project's impact is "individually minor" and, thus, not found significant in a project-specific analysis, it may make a considerable contribution because it is "collectively significant." (*Id.* at 119-120; *Los Angeles Unified School Dist. v. City of Los Angeles* ("LAUSD") (1997) 58 Cal.App.4th 1019, 1025-1026.) Indeed, the step-two threshold may need to be a sliding scale because "the greater the existing environmental problems are, the lower the threshold should be for treating a project's contribution to cumulative impacts as significant." *CBE*, supra, 103 Cal.App.4th at 120. In sum, because CEQA specifically recognizes that the step-two threshold in cumulative analysis may be lower than the threshold to determine whether an impact is individually significant, there can be no routine assumption that the project-specific threshold is the same as the threshold for step-two in a cumulative analysis.

Here, the SEIR does not provide, much less justify, any threshold for a project-specific analysis. The only form of analysis was cumulative analysis, and the SEIR simply declines to consider whether the Project's TAC impacts would be individually significant.

The omission of a project-specific analysis is legally erroneous. Furthermore, there is ample evidence that the omission is prejudicial to informed decision-making and public participation. Had the EIR provided a legally adequate project-specific analysis, it may well have determined that the project's individual impacts are significant, even if there were no significant cumulative impact from all projects taken together. First, as indicated in the attached letter from Paul Rosenfeld and Jessie Jaeger, the Project causes at least 42 excess cancers in one million. This impact is four times the 10-excess cancer threshold used by the majority of California Air districts, including BAAQMD, to assess the significance of single source impacts. Indeed, the Project's excess cancers nearly double the total ambient cancer risk. Finally, regardless of the conclusion that the EIR

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might have reached had it provided a project-specific analysis, the EIR is insufficient as an informational document without this analysis. To correct this error, the EIR should be revised and recirculated.

### II. The SEIR's assessment of cumulative TACs is invalid because it fails to include all sources of related impacts.

As set forth in the attached letter from Jessie Jaeger and Paul Rosenfeld, the SEIR fails to include foreseeable future development in its analysis of cumulative TAC health risks. In particular, the SEIR fails to include the TAC emissions from the future construction and operation of the Mission Bay area redevelopment projects. This build-out was projected in the Mission Bay EIR to generate 218,549 vehicle trips and 2,684 truck trips per day. Because the EIR projects that excess cancers will be at least 86 per one million with the existing development plus the Project, this level of additional traffic clearly has the potential to cause excess cancers to exceed the 100 excess cancer threshold identified by the EIR as the threshold for a significant cumulative impact.

Cumulative analysis must include all sources of "related impacts," including past, present, and potential future projects. (CEQA Guideline, § 15130(a)(1), (b).) The unjustified omission of related sources of TACs is an error because without this disclosure the public and decision makers cannot "determine whether such information would have revealed a more severe impact." (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720, 724.) The future development of the rest of the Mission Bay project is clearly foreseeable because it has already been approved at the program level. The Warriors Arena Project is but one phase of the overall Mission Bay project. The California Supreme Court has held that it is error for an EIR for one phase of a project to omit impacts from future phases in its analysis of cumulative impacts. (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 396.) The omission of this foreseeable future development is error.

The DSEIR implies that that impacts from future development may be ignored because "[o]ther future projects, whose emissions have not been incorporated into the existing Citywide health risk modeling . . . would similarly be subject to CEQA requirements to analyze the health risk impact of their project."<sup>1</sup> (DSEIR, p. 4.4-28.) However, the SEIR may not tier from future environmental reviews: "CEQA's informational purpose 'is not satisfied by simply stating information will be provided in the future.'" (*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 440-441 (emphasis in original).)

<sup>1</sup> The DSEIR mentions Pier 70 and Seawall Lot 337/Pier 48 as examples of such future projects, and then dismisses their impacts because they are allegedly too distant to affect the same receptors. (DSEIR, p. 5.4-28). But the DSEIR ignores the Mission Bay buildout adjacent to the project.

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### III. The SEIR's assessment of TAC health risks is inadequate because it ignores current OEHHA guidance.

Comments on the DSEIR objected that the health risk assessment fails to use the most recent OEHHA Air Toxics Hotspots Program Risk Assessment Guidelines. OEHHA has revised its daily breathing rate for children upward to 1.090 L/kg-day, almost doubling the 581 L/kg-day breathing rate from the outdated 2000 guidelines used by the DSEIR. In response, the FSEIR does not dispute the validity of the new guidance and admits that BAAQMD intends to use the revised guidance in the future, but declined to provide an assessment of health risks based on the new guidance.

Children are the most vulnerable to TAC exposure, as evidenced by the elevated excess cancer rates for children as compared to adults. (*See, e.g.,* DSEIR, Table 5.4-11, p. 5.4-49). The area of maximum vulnerability to TAC's from the project happens to be a children's hospital.

As the attached letter from Paul Rosenfeld and Jessie Jaeger indicates, contrary to the FSEIR, OEHHA published and recommended use of higher, differential breathing rates for children well before the SEIR's health risk assessment was prepared. Rosenfeld and Jaeger demonstrate that if excess cancers were determined using the OEHHA guidance for children's breathing rate rather than the outdated 2000 guidance, the excess cancers for the maximally exposed receptors at the UCSF Benioff Children's Hospital would in fact substantially exceed the 100 excess cancer threshold used by the DSEIR to determine a significant cumulative impact. Based on the threshold of significance adopted by the SEIR, the Project would make a considerable contribution to this significant cumulative impact because the Project adds well more than 10 excess cancers to this total. Thus, the SEIR's failure to use the most recent scientific data and its failure to provide reasoned analysis in response to comments requesting this analysis results in a failure to disclose this significant cumulative impact.

Refusal to respond to responsible comments from experts regarding analytic parameters with reasoned analysis, as well as mischaracterization of the currency of those Parameter, are failures to meet CEQA's disclosure obligations. For example, a court set aside an analysis of TAC's that was based on outdated CARB guidance after comments pointed out this flaw and the final EIR declined to provide corrected analysis:

" . . . the use in the final EIR of data extrapolated from CARB's 1991 speciation profile # 508 for measuring aircraft emission of TAC's did not meet the standard of "a good faith effort at full disclosure" required by CEQA. (Guidelines, § 15151.) " " "[W]here comments from responsible experts or sister agencies disclose new or conflicting data or opinions that cause concern that the agency may not have fully evaluated the project and its alternatives, these comments may not simply be ignored. *There must be good faith, reasoned analysis in response.*" ' " (*Cleary v. County of Stanislaus* (1981) 118 Cal.App.3d 348, 357, 173 Cal.Rptr. 390, original italics.) By using scientifically outdated information derived from

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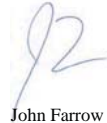
the 1991 profile, we conclude the EIR was not a reasoned and good faith effort to inform decision makers and the public about the increase in TAC emissions that will occur as a consequence of the Airport expansion.

(*Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs* (2001) 91 Cal.App.4th 1344, 1367 [111 Cal.Rptr.2d 598, 615], as modified on denial of reh'g (Sept. 26, 2001).)

Here, the EIR should be revised and recirculated to provide a health risk assessment that is based on current science regarding the parameters that determine actual risk to children.

Yours sincerely,

M. R. WOLFE & ASSOCIATES, P.C.



John Farrow

JHF:hs

List of Exhibits

Exhibit 1 is referenced in this letter.  
Exhibits 2-8 are referenced in Exhibit 1 to this letter.

1. November 2, 2015 letter report from Jessie Jaeger and Paul Rosenfeld.
2. "Health Risk Assessments for Proposed Land Use Projects," California Air Pollution Control Officers Association 2009, available at: [http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA\\_HRA\\_LU\\_Guidelines\\_8-6-09.pdf](http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf).
3. CEQA Air Quality Handbook, A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review, San Luis Obispo Air Pollution Control District 2012, available at: [http://www.slocleanair.org/images/cms/upload/files/CEQA\\_Handbook\\_2012\\_v2%20%28Updated%20Sept%202015%29.pdf](http://www.slocleanair.org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20Sept%202015%29.pdf).

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4. Mission Bay Land Use Plan, November 2005, available at: <http://sfocii.org/Modules/ShowDocument.aspx?documentid=783>.
5. "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessment." Office of Environmental Health Hazard Assessment, February 2015, available at: [http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html).
6. Adoption of the Revised Air Toxics Hot Spots Program Technical Support Document for Cancer Potency Factors, Office of Environmental Health Hazard Assessment, June 1, 2009, available at: [http://www.oehha.ca.gov/air/hot\\_spots/tsd052909.html](http://www.oehha.ca.gov/air/hot_spots/tsd052909.html).
7. Adoption of the Revised Air Toxics Hot Spots Program Risk Assessment Guidelines: Revised Technical Support Document for Exposure Assessment and Stochastic Analysis, Office of Environmental Health Hazard Assessment, August 27, 2012, available at: [http://www.oehha.ca.gov/air/hot\\_spots/tsd082712.html](http://www.oehha.ca.gov/air/hot_spots/tsd082712.html).
8. *Technical Support Document for Exposure Assessment and Stochastic Analysis*, Office of Environmental Health Hazard Assessment, August 2012, available at: [http://www.oehha.ca.gov/air/hot\\_spots/pdf/2012tsd/Chapter3\\_2012.pdf](http://www.oehha.ca.gov/air/hot_spots/pdf/2012tsd/Chapter3_2012.pdf).



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November 2, 2015

Thomas N. Lippe  
The Law Offices of Thomas N. Lippe  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Comments on the Event Center and Mixed-Use Development Project at Mission Bay Blocks 29-32**

Dear Mr. Lippe:

We have reviewed the October 23, 2015 Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 Project ("Project") Final Subsequent Environmental Impact Report (FSEIR), which includes responses to comments ("Responses") we made on the June 2015 Draft Environmental Subsequent Impact Report (DSEIR).

The FSEIR fails to resolve several issues raised in comments to the DSEIR. We maintain that the SEIR's health risk assessment remains flawed for three reasons:

- The FSEIR fails to provide a project-specific health risk assessment for the Project. The thresholds of significance and the analysis in the FSEIR provide only a cumulative impact analysis. Thus, the FSEIR fails to consider whether the Project's toxic air contaminant (TAC) emissions are, by themselves, a significant impact. Although the FSEIR fails to identify a threshold of significance for project-specific effects, Project-caused excess TAC cancers are more than four times the threshold used by most California air districts to determine the significance of an individual project's impacts.
- The FSEIR fails to include all foreseeable sources of TAC emissions in its cumulative impact analysis, as it omits foreseeable future construction and operation of developments approved in the vicinity of the Project. The health risk assessment should be revised to include TAC emissions from these sources, as they could potentially result in a significant cumulative impact.
- The FSEIR fails to incorporate updated child breathing rates, set forth by OEHHA, in its health risk assessment. Even though OEHHA published these higher breathing rates for children in 2012 and recommends that TAC analyses use these rates, and even though comments

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EXHIBIT 1



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requested that the FSEIR provide an updated analysis using these breathing rates, the FSEIR failed to do so.

### Failure to Assess Individual Health Risk from Proposed Project

In our July 27, 2015 comment letter, we found that the DSEIR failed to adequately evaluate the health risk posed to nearby sensitive receptors from exposure to toxic air contaminants (TACs) emitted during Project construction and operation. We maintain that the FSEIR incorrectly relies upon criteria used to identify communities located within an Air Pollutant Exposure Zone (APEZ), as defined by Article 38 under the San Francisco Health Code, and propose that the Project's individual health risk and PM<sub>2.5</sub> emissions be compared to the Bay Area Air Quality Management District's (BAAQMD) project-level significance thresholds of 10 in one million and 0.3 micrograms per cubic meter (µg/m<sup>3</sup>), respectively.<sup>1</sup>

As we pointed out in our July 27 letter, to evaluate the cumulative and individual health risk impacts of the Project, the DSEIR relies upon criteria used to define communities located within an APEZ. The DSEIR states,

"an APEZ [is] defined as an area in which modeled air pollution exceeds either: (1) a cancer risk of greater than 100 per one million exposed, and/or (2) PM<sub>2.5</sub> concentrations in excess of 10 microgram per cubic meter (µg/m<sup>3</sup>) (including ambient)" (Appendix AQ, p. 9).

Using these criteria, both the DSEIR and the FSEIR's Responses concluded that because the Project's health risk, combined with background ambient sources, would not result in sensitive receptor locations meeting the Air Pollutant Exposure Zone criteria, the Project would have a less-than-significant health risk impact (FSEIR, p. 13.13-25). The FSEIR states,

"The project site is not within an Air Pollutant Exposure Zone and, based on citywide modeling, the highest mitigated risk at a receptor near the project site (UCSF Hospital) from the contribution of emissions from all modeled sources is an excess cancer risk of 86 per one million persons exposed with an increased risk of 44 per one million due to background ambient sources and the remainder from modeled vehicles (construction and operation) and stationary source contributions from the project. These levels are below the SEIR threshold levels for identifying when sensitive populations may be exposed to substantial pollutant concentrations." (DSEIR p. 5.4-27; FSEIR p. 13.13-26).

The APEZ 100 excess cancer threshold is a threshold for cumulative analysis, not for evaluation of project-specific impacts. CEQA requires both assessments. BAAQMD's project-specific threshold of significance of 10 excess cancers is for "single source impacts;" thus, a single source such as the Project should be deemed to have a significant impact if it causes 10 or more excess cancers regardless of cumulative conditions.

<sup>1</sup> "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2011, available at: [http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines\\_May%202011\\_5\\_3\\_11.ashx](http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx), p. 5-3

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The 10 excess cancers threshold is widely used by California Air Districts as a threshold for project-specific impacts. The California Air Pollution Control Officers Association reports that, for TACS, "[f]or the majority of the air districts the **excess cancer risk** significance threshold is set at **10 in a million**."<sup>2</sup> For example, the San Luis Obispo Air Pollution Control District finds that individual projects that generate over 10 excess TAC cancers have significant impacts.<sup>3</sup>

We maintain that the FSEIR's application of APEZ criteria to ignore the significance of project-specific impacts fails to disclose that the Project will expose sensitive populations to substantial pollutant concentrations, as discussed below.

Since the Project is not proposing to construct residential land uses on-site, it will not expose new on-site sensitive receptors to substantial air pollutant concentrations. There are, however, off-site sensitive receptors within the Project vicinity that could be potentially exposed to pollutants emitted by the Project. Sensitive receptor locations located within 1,000 feet of the Project site include: the UCSF Hearst Tower, the Madrone Mission Bay Residential Towers, and the UCSF Hospital (see table below) (p. 5.4-17).

TABLE 5.4-5  
SENSITIVE RECEPTORS IN THE PROJECT SITE VICINITY

Receptor Type	Distance and Direction from the Project Site
Residential: UCSF Mission Bay Housing (Hearst Tower), Block 22	200 feet northwest
Residential: Madrone Mission Bay Residential Towers	800 feet to the north, on Mission Bay Boulevard North
Hospital: UCSF Benioff Children's Hospital facility at Mission Bay, plus the UCSF Betty Irene Moore Women's Hospital and the UCSF Bakar Cancer Hospital	300 feet southwest

Additionally, the DSEIR assessed the risk posed to the UCSF Mission Bay day care facility, located approximately 1,300 feet to the west (p. 5.4-16). Of the sensitive receptor locations evaluated in the DSEIR, a child resident at the UCSF Hospital was found to be the most affected by the Project. As pointed out in the FSEIR Responses, the maximally exposed sensitive receptor location had an estimated background ambient risk of approximately 44 in one million (p. 13.13-26). Mitigated emissions from Project operation and construction at that location would increase this risk to approximately 86 in one million excess cancers (see table below) (Volume 3, pp. 1225).

<sup>2</sup> "Health Risk Assessments for Proposed Land Use Projects," California Air Pollution Control Officers Association 2009, page 11, available at: [http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA\\_HRA\\_LU\\_Guidelines\\_8-6-09.pdf](http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf).

<sup>3</sup> CEQA Air Quality Handbook, A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review, San Luis Obispo Air Pollution Control District 2012, available at: [http://www.slocleanair.org/images/cms/upload/files/CEQA\\_Handbook\\_2012\\_v2%20%28Updated%20Sept%202015%29.pdf](http://www.slocleanair.org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20Sept%202015%29.pdf).



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Source	Lifetime Excess Cancer Risk at off-site Receptors			
	Excess Cancer Risk (in one million)			
	UCSF Hearst Tower		UCSF Hospital Receptor	Uber/ARE Receptor
	Child Resident	Adult Resident	Child Resident	Daycare Child
Background at the maximally impacted receptor	26	26	44	20
Uncontrolled Construction Contribution	54	2.8	26	73
Controlled (Tier 2 + NOx VDECs) Construction Contribution	9.2	0.48	4.8	12.5
Project Operations - Generators	30	30	30	30
Project Operations - Mobile Sources	7.2	7.2	7.2	7.2
Cumulative Total (Uncontrolled/with Mitigation)	117/72	66/44	109/86	131/70
Significance Threshold	100	100	100	100
Significant (Uncontrolled/with Mitigation)?	Yes/ No	No/ No	Yes/ No	Yes/ No

The Project's emissions, alone, nearly double the health risk posed to a child resident at this sensitive receptor location. Similarly, the Project increases the total risk posed to a child resident at the UCSF Hearst Tower sensitive receptor location by a factor of 2.8, increases the total risk posed to an adult resident at the UCSF Hearst Tower location by a factor of 2.5, and increases the total risk posed to a daycare child at the Uber/ARE location by a factor of 3.5 (see table below). The Project's excess cancers are well in excess of the 10 in one million threshold used by BAAQMD and most California Air districts to determine the significance of an individual project's impact.

Sensitive Receptor	Background Risk	Project Risk	Total Risk	Factor by which Risk Increases Due to Project
Excess Cancers in One Million				Total Risk/Background Risk
UCSF Hearst Tower Child Resident	26	46	72	2.8
UCSF Hearst Tower Adult Resident	26	38	64	2.5
UCSF Hospital Child Resident	44	42	86	2.0
Uber/ARE Daycare Child	20	50	70	3.5

The fact that the FSEIR concludes that the Project would not expose sensitive populations to "substantial pollutant concentrations," even though the Project's contributions are equal to or greater than the background health risk at every sensitive receptor location is absolutely absurd. Simply because the Project "would not result in sensitive receptor locations meeting the Air Pollutant Exposure Zone criteria" does not mean that the Project will have a less-than-significant health risk impact, and the FSEIR is wrong to make such a ridiculous assumption (p. 13.13-25). The fundamental problem is that the FSEIR entirely fails to consider whether the Project's own TAC impact is a significant impact regardless of the cumulative context.

### Cumulative Impact Analysis Fails to Account for All Past, Present and Future Sources

The DSEIR utilizes background ambient risk values from a local-scale citywide modeling effort conducted in 2012, and then combines the Project's health risk to this background risk to determine whether or not the Project would have a cumulatively considerable impact. Using this method, the DSEIR concludes that with mitigation, the Project would have a less-than-significant cumulative health risk impact (p. 5.4-49). This determination, however, is based on a flawed analysis that fails to account for "all past,

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present, and foreseeable future sources."<sup>4</sup> As a result, the Project's cumulative health risk impact is greatly underestimated.

As previously stated, the ambient background health risk values, relied upon by the DSEIR, were derived from a city wide modeling effort. The methods used and specific emission sources included in this model can be found in *The San Francisco Community Risk Reduction Plan: Technical Support Documentation*.<sup>5</sup> According to this report, direct emissions from on-road mobile sources on freeways and streets with traffic volumes of more than 1,000 vehicles per day, permitted stationary sources, Caltrain passenger diesel locomotives, ships and harbor craft, local transit buses, and major construction projects in 2010 and 2025 were modeled. Emissions from indirect sources that generate vehicle trips such as distribution centers, retail centers, and postal service stations were not included in the model because they "were judged to be less important than similar sources that are included, such as the case of indirect sources (whose contribution is small compared to freeway and street traffic)..."<sup>6</sup>

While contributions from indirect sources may be negligible when compared to emissions from freeways and major streets, they could present a significant impact relative to local emissions near the Project site for several reasons.

First, the Project site is not located near any major freeways or streets that meet the above criteria; therefore, local impacts from mobile-source emissions within the Project vicinity were not accounted for. This statement is supported by data presented in *The San Francisco Community Risk Reduction Plan: Technical Support Documentation*. As evident from the figure below, excess cancer risks from direct on-road mobile emissions in 2010 within the Project area were not accounted for, as the entire area is white.<sup>7</sup>

<sup>4</sup> "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2011, available at: [http://www.baaqmd.gov/-/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines\\_May%202011\\_5\\_3\\_11.ashx](http://www.baaqmd.gov/-/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx), p. 2-5

<sup>5</sup> "The San Francisco Community Risk Reduction Plan: Technical Support Documentation." BAAQMD, December 2012, available at:

[http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2012\\_12\\_BAAQMD\\_SF\\_CRRP\\_Methods\\_and\\_Finding\\_s\\_v9.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Finding_s_v9.pdf)

<sup>6</sup> "The San Francisco Community Risk Reduction Plan: Technical Support Documentation." BAAQMD, December 2012, available at:

[http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2012\\_12\\_BAAQMD\\_SF\\_CRRP\\_Methods\\_and\\_Finding\\_s\\_v9.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Finding_s_v9.pdf), p. 4

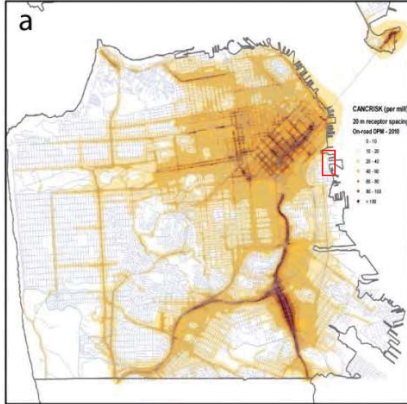
<sup>7</sup> "The San Francisco Community Risk Reduction Plan: Technical Support Documentation." BAAQMD, December 2012, available at:

[http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2012\\_12\\_BAAQMD\\_SF\\_CRRP\\_Methods\\_and\\_Finding\\_s\\_v9.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Finding_s_v9.pdf), p. 40, 42

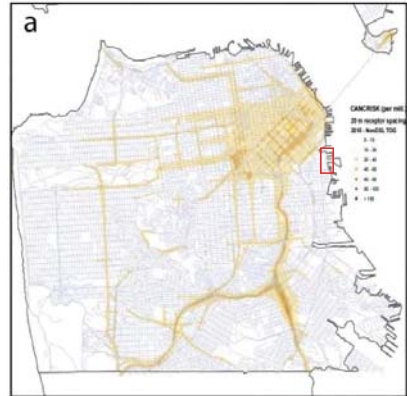


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2010 Cancer risk from **diesel exhaust** emitted by on-road vehicles



2010 Cancer risk from **total organic gases** emitted by on-road vehicles



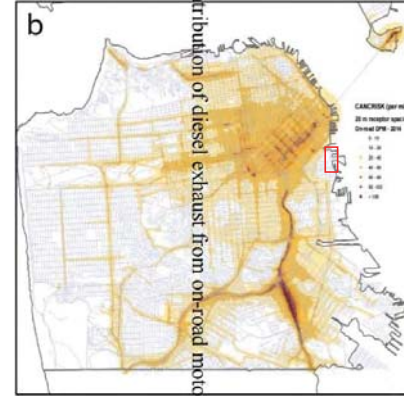
Similarly, figures for projected cancer risks from on-road mobile emissions in 2014 and 2025 demonstrate that these sources were not considered for future years (see figures below).

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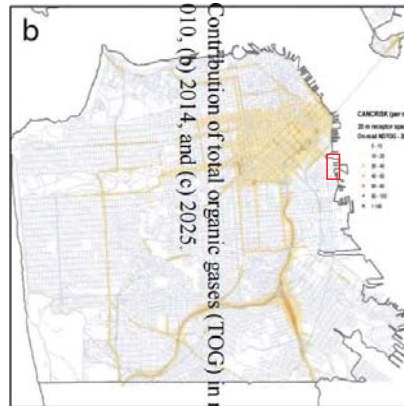
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2014 Cancer risk from **diesel exhaust** emitted by on-road vehicles



2014 Cancer risk from **total organic gases** emitted by on-road vehicles



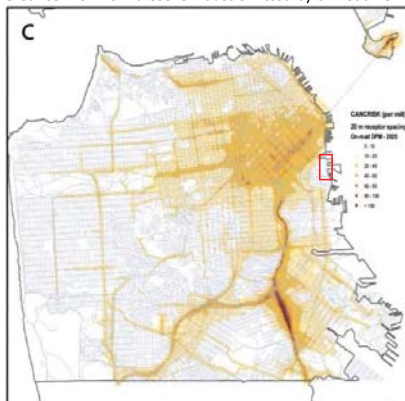
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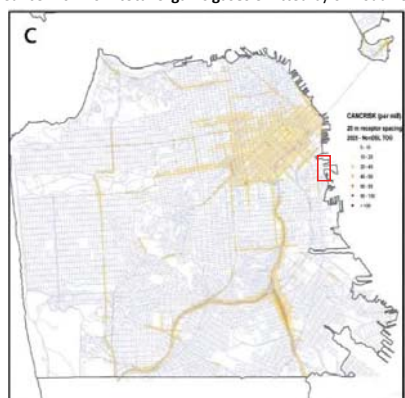


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2025 Cancer risk from diesel exhaust emitted by on-road vehicles



2025 Cancer risk from **total organic gases** emitted by on-road vehicles



Second, major developments within the Project area were under construction at time of modeling. These new developments are anticipated to generate a significant number of vehicle trips, thus

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increasing the amount of diesel particulate matter (DPM) and TAC emissions nearby sensitive receptors would be exposed to.

The DSEIR recognizes that emissions from all "foreseeable future sources" were not accounted for when evaluating the Project's cumulative health risk impact. The DSEIR states,

"The HRA takes into account the cumulative contribution of localized health risks to sensitive receptors from sources included in the Citywide modeling plus the proposed project's sources. Other future projects, whose emissions have not been incorporated into the existing Citywide health risk modeling, such as Pier 70 and Seawall Lot 337/Pier 48 would similarly be subject to CEQA requirements to analyze the health risk impact of their project. However, health risk impacts are localized, and health risks from sources decrease substantially with increasing distance. Thus cumulative impacts from the Pier 70 and Seawall Lot 337/Pier 48 would not combine with the proposed project's emissions to substantially increase health risks within the project vicinity. Thus, because the project-level analysis includes health risks from all known existing sources, the project-level analysis is also a cumulative health risk analysis" (p. 5.4-28).

While the two projects discussed in the DSEIR would not necessarily contribute to the local health risk impact, there are many other projects located within the Project vicinity that could contribute to localized health risks. The proposed Project is one of many developments included in the Mission Bay Redevelopment Area (see figure below).<sup>8</sup>

<sup>8</sup> Mission Bay Land Use Plan, November 2005, available at:  
<http://sfocil.org/Modules/ShowDocument.aspx?documentid=783>



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According to the Mission Bay EIR, at buildout, the proposed developments are anticipated to generate approximately 218,549 vehicle trips per day, and approximately 2,684 truck trips per day (see table below).<sup>9</sup>

Project Land Use	Daily Vehicle Trips	Annual Vehicle Trips	Daily Truck Trips	Annual Truck Trips
Mission Bay North	73,710	26,904,150	674	246,010
Mission Bay South	144,839	52,866,235	2,010	733,650
<b>Total Project</b>	<b>218,549</b>	<b>79,770,385</b>	<b>2,684</b>	<b>979,660</b>

Once construction of the proposed Mission Bay developments are completed, the DPM and TAC emissions from operational mobile-sources alone could result in a potentially significant impact on local health risk. The health risk conducted in the DSEIR failed to account for these additional "foreseeable future sources," and as a result, the Project's cumulative health risk impact is underestimated. It should be noted that the proposed developments encompass approximately 300 acres of land. As is

<sup>9</sup> "Final Mission Bay Subsequent Environmental Impact Report." San Francisco Planning Department, September 17, 1998, available at: <http://www.sfocil.org/index.aspx?page=61>

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demonstrated in the figure below, a significant portion of the proposed developments are within 1,000 feet of the Project site.



Therefore, the indirect vehicle emissions generated by the portion of developments located within 1,000 feet could still significantly contribute to the local cancer risk. When impacts from these sources are accounted for, the mitigated health risk at the UCSF Hospital of 86 in one million could substantially increase, potentially to a level in exceedance of the 100 in one million threshold.

Finally, construction emissions from major developments within the area, while analyzed, were not included in the citywide model. Modeled background ambient cancer risk relied upon by the DSEIR does account for major construction projects approved at time of modeling, including ones at Mission Bay. However, the analysis conducted was extremely limited, and the results of this analysis were not included in the total citywide model. *The San Francisco Community Risk Reduction Plan: Technical Support Documentation* report states,

"No emission estimates were made for project year 2014. Emissions were estimated to represent the phase of construction expected to occur over the course of the modeling year and are not meant to encompass the entire project construction. Only exhaust emissions from construction equipment were included in the inventory; the analysis did not quantify emissions from fugitive dust or road dust. Health risk estimated from the emissions of construction

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projects are for informational purposes only and were not included in the city-wide assessment.”<sup>10</sup>

As is evident from the figure below, there are major construction projects underway in 2010 within the vicinity of the Project, and major construction projects anticipated to occur in 2025.<sup>11</sup>



By failing to account for the additional impacts from these local sources, the cumulative health risk impact at the Project site is greatly underestimated.

### Failure to Utilize Values from Updated Health Risk Assessment Guidelines

In February 2015, the California Environmental Protection Agency’s Office of Environmental Health Hazard Assessment (OEHHa) released updated health risk assessment guidelines that require risk calculations for specific age groupings.<sup>12</sup> The FSEIR fails to incorporate recommended age specific inhalation rates set forth in this updated guidance document, arguing that “air districts do not always

<sup>10</sup> “The San Francisco Community Risk Reduction Plan: Technical Support Documentation.” BAAQMD, December 2012, available at: [http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2012\\_12\\_BAAQMD\\_SF\\_CRRP\\_Methods\\_and\\_Finding\\_s\\_v9.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Finding_s_v9.pdf), p. 23.

<sup>11</sup> “The San Francisco Community Risk Reduction Plan: Technical Support Documentation.” BAAQMD, December 2012, available at: [http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2012\\_12\\_BAAQMD\\_SF\\_CRRP\\_Methods\\_and\\_Finding\\_s\\_v9.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Finding_s_v9.pdf), p. 34

<sup>12</sup> “Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessment.” Office of Environmental Health Hazard Assessment, February 2015, available at: [http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html)

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adopt OEHHa methodologies verbatim or immediately” (p. 13.13-50, 13.13-51). While this may be true, OEHHa is the regulatory agency responsible for determining what default values should be used within a health risk, and until the Air District updates its health risk guidance to reflect OEHHa’s proposed updates, recommendations set forth by OEHHa should be used. Furthermore, these age-specific breathing rates were formally adopted and implemented prior to adoption of this most recent guidance (March 2015), contrary to what the FSEIR suggests. Due to these reasons, prior to certification of the FSEIR, an updated health risk assessment should be prepared to include these updated values.

OEHHa was tasked with to developing guidelines for conducting health risk assessments under the Air Toxics Hot Spots Program (Health and Safety Code Section 43360(b)(2)). OEHHa initially developed Technical Support Documents (TSDs) in 1999-2000 in response to this statutory requirement. Since 2000, they have revised and adopted TSDs in an effort to present updated methodologies that reflect scientific knowledge and techniques developed since the previous guidelines were prepared; in particular, to explicitly include consideration of possible differential effects on the health of infants, children and other sensitive subpopulations, in accordance with the mandate of the Children’s Environmental Health Protection Act (Senate Bill 25, Escutia, Chapter 731, Statutes of 1999, Health and Safety Code Sections 39669.5 et seq.).<sup>13</sup>

Updated breathing rates for children and infants were adopted by OEHHa more than two years prior to the time the FSEIR’s health risk assessment was conducted. In August of 2012, OEHHa formally adopted the *Technical Support Document for Exposure Assessment and Stochastic Analysis*.<sup>14</sup> Chapter three of this document discusses “age-specific breathing rates for use in health risk assessments for short-term exposure...and for long-term daily average exposures resulting from continuous or repeated 8-hour exposure.”<sup>15</sup> OEHHa recommends the long-term daily breathing rates in Table 3.1 of this document (see excerpt below).

**Table 3.1. Recommended Point Estimates for Long-Term Daily Breathing Rates**

	3 <sup>rd</sup> Trimester	0<2 years	2<9 years	2<16 years	16<30 years	16<70 years
<b>L/kg-day</b>						
Mean	225	658	535	452	210	185
95th Percentile	361	1090	861	745	335	290
<b>m<sup>3</sup>/day</b>						
Mean	15.3	6.2	10.7	13.3	15.0	13.9
95th Percentile	23.4	11.2	16.4	22.6	23.5	22.9

<sup>13</sup> Adoption of the Revised Air Toxics Hot Spots Program Technical Support Document for Cancer Potency Factors, Office of Environmental Health Hazard Assessment, June 1, 2009, available at: [http://www.oehha.ca.gov/air/hot\\_spots/tsd052909.html](http://www.oehha.ca.gov/air/hot_spots/tsd052909.html)

<sup>14</sup> Adoption of the Revised Air Toxics Hot Spots Program Risk Assessment Guidelines: Revised Technical Support Document for Exposure Assessment and Stochastic Analysis, Office of Environmental Health Hazard Assessment, August 27, 2012, available at: [http://www.oehha.ca.gov/air/hot\\_spots/tsd082712.html](http://www.oehha.ca.gov/air/hot_spots/tsd082712.html)

<sup>15</sup> [http://www.oehha.ca.gov/air/hot\\_spots/pdf/2012tsd/Chapter3\\_2012.pdf](http://www.oehha.ca.gov/air/hot_spots/pdf/2012tsd/Chapter3_2012.pdf) p. 3-1

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Therefore, to provide an appropriate analysis of the health effects on children, the 95<sup>th</sup> percentile breathing rates for children should have been applied at the time the analysis was conducted, and should be applied now in an updated health risk assessment in an effort to determine the potential cancer risk posed to children and infants residing near the Project site.

The DSEIR utilizes a breathing rate of 581 L/kg-day for children at each sensitive receptor location, and uses a breathing rate of 302 L/kg-day for an adult resident (see table below) (Appendix AQ, Table 6.1-7).

Exposure Parameter	Units	Construction			
		Child Resident	Adult Resident	Hospital Child	Daycare Child
Daily Breathing Rate (DBR) <sup>a</sup>	[L/kg-day]	581	302	581	581
Exposure Time (ET) <sup>b</sup>	[hours/24 hours]	24	24	24	11
Exposure Frequency (EF) <sup>c</sup>	[days/year]	350	350	365	253
Exposure Duration (ED) <sup>d</sup>	[years]	2.0	2.0	1.0	0.67
Averaging Time (AT)	[days]	25,550	25,550	25,550	25,550
Intake Factor, Inhalation (IF <sub>inh</sub> )	[m <sup>3</sup> /kg-day]	0.016	0.0083	0.0083	0.0018
Cancer Risk Adjustment Factor <sup>e</sup>	[-]	10	1.0	10	10
Modeling Adjustment Factor <sup>f</sup>	[-]	N/A	N/A	N/A	3.15

In an effort to demonstrate how greatly the breathing rates affect the overall health risk posed to each sensitive receptor, we conducted a simple analysis where we kept every health risk parameter the same, and only changed the breathing rates between the two assessments. Using the DSEIR's child breathing rate of 581 L/kg-day, and assuming that each receptor would be exposed to an ambient air concentration of 0.5 µg/m<sup>3</sup> for two years, we estimated a child resident cancer risk of 88 in one million (see table below).

Parameter	Description	Units	Child
Cair	Concentration	µg/m <sup>3</sup>	0.5
DBR	Daily breathing rate	L/kg-day	581
EF	Exposure Frequency	days/year	350
ED	Exposure Duration	years	2
AT	Averaging Time	days	25550
	Inhaled Dose	(mg/kg-day)	8.17E-06
CPF	Cancer Potency Factor	1/(mg/kg-day)	1.1
ASF	Age Sensitivity Factor	-	10
Cancer Risk (in one million)			88

When OEHHA's updated breathing rate of 1,090 L/kg-day is used, we estimate a child resident cancer risk of 164 in one million (see table below).

Parameter	Description	Units	Child
Cair	Concentration	µg/m <sup>3</sup>	0.5
DBR	Daily breathing rate	L/kg-day	1090
EF	Exposure Frequency	days/year	350
ED	Exposure Duration	years	2
AT	Averaging Time	days	25550

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	Inhaled Dose	(mg/kg-day)	8.17E-06
CPF	Cancer Potency Factor	1/(mg/kg-day)	1.1
ASF	Age Sensitivity Factor	-	10
Cancer Risk (in one million)			164

This simple analysis demonstrates that when the updated breathing rate for a child receptor is utilized, the cancer risk is nearly doubled.

It is particularly critical that the analysis consider the actual impacts of TACs on child receptors based on their actual breathing rates because the maximally exposed receptors near the Project site are children, including children at the UCSF Benioff Children's Hospital.

### Conclusion

The FSEIR remains inadequate as an assessment of the health risks from the Project's TAC emissions, both by itself and cumulatively in combination with other TAC sources. It should be revised to provide a project-specific analysis, to provide a cumulative analysis that includes all foreseeable future projects, and to assess TAC impacts to children based on current science and OEHHA guidance.

Sincerely,



Paul Rosenfeld



Jessie Jaeger

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EXHIBIT 2

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# Health Risk Assessments for Proposed Land Use Projects



CAPCOA Guidance Document



Prepared by:  
CAPCOA Planning Managers

Approved for Release  
July 2009



## O-MBA20L7

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### Glossary

Acute Hazard Index	Acute Hazard Index is the ratio of the average short term (generally one hour) ambient concentration of an acutely toxic substance(s) divided by the acute reference exposure level set by the Office of Environmental Health Hazard Assessment. If this ratio is above one, then adverse health effects may occur.
Background Risk	Background risk is the risk level found throughout an area. This risk is not caused by a particular facility; it is the cumulative risk and may be partly due to air pollution from vehicle traffic.
Cancer Risk	Cancer risk is defined as the probability that an individual will contract cancer usually expressed as so many chances per million persons exposed to a specified concentration of carcinogenic substance(s).
Chronic Hazard Index	Chronic Hazard Index is the ratio of the average annual ambient concentration of a chronically toxic substance(s) divided by the chronic reference exposure level set by the Office of Environmental Health Hazard Assessment. If this ratio is above one, then adverse health effects may occur.
Commenting Agency	A commenting agency is any public agency that comments on a CEQA document, but is neither a lead agency nor a responsible agency. For example, a local air district, as the agency with the responsibility for air pollution control, could review and comment on an air quality analysis in a CEQA document, even though the project was not subject to an air permit or other air pollution control requirements.
Cumulative impact	Cumulative impacts represent the risks from all onsite sources and from sources near enough to the project to significantly contribute to the total risk levels.
Hot Spots Program	Health and Safety Code §44300-44394, Program which requires existing sources to inventory toxic emissions, prepare risk assessments, notify significantly exposed receptors, and prepare and implement risk reduction plans.
Lead Agency	A lead agency is the public agency that has the principal responsibility for carrying out or approving a project that is subject to CEQA. In general, the land use agency is the preferred public agency serving as lead agency, because it has jurisdiction over general land uses. The lead agency is responsible for determining the appropriate environmental document, as well as its preparation.

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Receptors	Receptors include sensitive receptors and worker receptors. Sensitive receptors refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses where sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (these sensitive land uses may also be referred to as sensitive receptors). Worker receptors refer to employees and locations where people work.
Responsible Agency	A responsible agency is a public agency, other than the lead agency, with discretionary approval authority over a project that is subject to CEQA (i.e., project requires a subsequent permit).
Risk Assessment	An evaluation that assesses the impact of toxic substances affecting receptors. A risk assessment can include minimal input parameters resulting in conservative results (screening risk assessment) or include increasingly detailed input parameters (refined risk assessment).
Source	A source is referred to as the locality where toxic emissions originate and are released into the atmosphere. Sources of emissions are categorized into groups such as point source (e.g., refinery) or line source (e.g., roadway).
Type A Project	Land use project that impacts receptors near the project.
Type B Project	Land use project with receptors that are impacted by nearby, existing toxics sources.



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### Acronyms

ARB:	California Air Resources Board
ATCM:	Air Toxic Control Measure
CAPCOA:	California Air Pollution Control Officers Association
CEQA:	California Environmental Quality Act
DPM:	Diesel Particulate Matter
EIR:	Environmental Impact Report
EPA:	U.S. Environmental Protection Agency
HRA:	Health Risk Assessment
OEHHA:	California Office of Environmental Health Hazard Assessment
PM:	Particulate Matter
REL:	Reference Exposure Level
TAC:	Toxic Air Contaminant
TBACT:	Toxic Best Available Control Technology

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### Executive Summary

### Executive Summary

This guidance was prepared to assist Lead Agencies in complying with the requirements of the California Environmental Quality Act (CEQA)<sup>1</sup>. CEQA requires environmental impacts of a proposed project be identified, assessed, and avoided or mitigated (as possible) if these impacts are significant. To determine the impact of airborne toxic emissions [i.e., toxic air contaminants (TACs)] for CEQA purposes, health risk assessments must be prepared. This document describes when and how a health risk assessment should be prepared and what to do with the results.

In 2005, the California Air Resources Board (ARB) prepared the *Air Quality and Land Use Handbook: a Community Health Perspective (ARB Handbook)*<sup>2</sup>, to help readers understand the potential cancer risks from some common sources of toxic emissions such as:

- Freeways and High Traffic Volume Roads,
- Goods Distribution Centers,
- Rail Yards,
- Ports,
- Refineries,
- Chrome Platers,
- Dry Cleaners using Perchloroethylene, and
- Gasoline Dispensing Facilities.

The ARB Handbook identified the potential cancer risks at various distances from these sources and recommended buffer distances between those sources and receptors.

Recent air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California.

While local air districts have ample experience evaluating and mitigating toxic emissions from permitted stationary sources, most have limited experience preparing or reviewing risk assessments associated with multiple toxic sources or assessments for exhaust from mobile sources that are typically found when evaluating health risks to proposed land use projects.

In order to provide consistency to lead agencies, project proponents and the general public throughout the state, the California Air Pollution Control Officers Association (CAPCOA) formed a subcommittee composed of representatives from the Planning Managers Committee and the Toxic Risk Managers Committee to develop guidance on assessing the health risk impacts from and to proposed land use projects. This CAPCOA guidance document focuses on the acute, chronic, and cancer impacts of sources affected by CEQA. It also outlines the

<sup>1</sup> Title 14 California Code of Regulations, Chapter 3. Guidelines for Implementation of the California Environmental Quality Act.

<sup>2</sup> Air Quality and Land Use Handbook: a Community Health Perspective, CARB, April 2005, <http://www.arb.ca.gov/ch/handbook.pdf>



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recommended procedures to identify when a project should undergo further risk evaluation, how to conduct the health risk assessment (HRA), how to engage the public, what to do with the results from the HRA, and what mitigation measures may be appropriate for various land use projects. With respect to health risks associated with locating sensitive land uses in proximity to freeways and other high traffic roadways, HRA modeling may not thoroughly characterize all the health risk associated with nearby exposure to traffic generated pollutants.

This guidance does not include how risk assessments for construction projects should be addressed in CEQA. As this is intended to be a "living document", the risks near construction projects are expected to be included at a later time as the toxic emissions from construction activities are better quantified. State risk assessment policy is likely to change to reflect current science, and therefore this document will need modification as this occurs.

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Section 1.0  
Requirements to Evaluate Health Risks in CEQA

## 1.0 Requirements to Evaluate Health Risks in CEQA

This guidance was prepared to assist Lead Agencies in complying with the requirements of the California Environmental Quality Act (CEQA)<sup>3</sup>. CEQA requires that environmental impacts of proposed projects be identified, assessed, avoided and/or mitigated (as possible) if the environmental impacts are significant.

Section 15126.2(a) requires the following: *"An Environmental Impact Report (EIR) shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there."*

This language is included here to clearly show that risk assessments can be required for both projects that will impact nearby receptors (Type A), and projects that will be impacted by nearby sources (Type B).

<sup>3</sup> Pub. Resources Code § 21067; 14 Cal. Code Regs., §§ 15150, 15367.



## 2.0 Overview of the Process

Figure 1 shows an overview of the proposed Health risk Assessment (HRA) process. There are basically two types of land use projects that have the potential to cause long-term public health risk impacts:

**Type A** - Land use projects with toxic emissions that impact receptors, and

**Type B** - Land use project that will place receptors in the vicinity of existing toxics sources.

**Type A** project examples (project impacts receptors):

- combustion related power plants,
- gasoline dispensing facilities,
- asphalt batch plants,
- warehouse distribution centers,
- quarry operations, and
- other stationary sources that emit toxic substances.

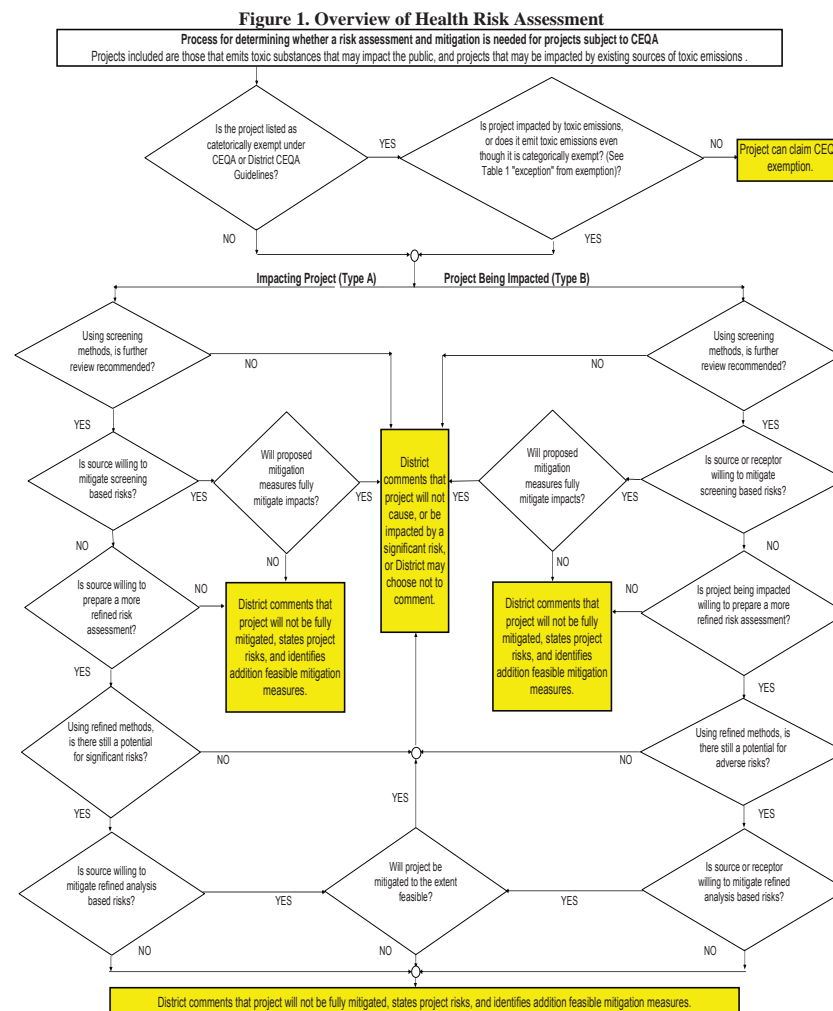
**Type B** project examples (project impacted by existing nearby toxic sources):

- residential, commercial, and institutional developments proposed to be located in the vicinity of existing toxic emission sources such as:
  - stationary sources,
  - high traffic roads
  - freeways,
  - rail yards, and
  - ports.

The flowchart (Figure 1) shows how to proceed with the CEQA process when either a Type A or Type B related project is proposed. The following summarizes the process for proceeding through the flowchart:

- First determine if the project is categorically exempt from CEQA;
- Next, determine if the project is impacting, or being impacted (Type A or B);
- Using screening methods, calculate acute, chronic, and cancer risk;
- If the screening analysis indicates significant health risk as defined by the lead agency, demonstrate that risks will be mitigated with all feasible measures even though a refined risk assessment may show that less mitigation is needed;
- Or, conduct a refined screening risk assessment; and,
- If the risk continues to be deemed significant by the lead agency even with the refined screening, demonstrate that the risks will be adequately mitigated with feasible measures.

Air districts, in their role as either a responsible agency or a commenting agency, should review the HRA and communicate to the lead agency their evaluation of the risk assessment and whether it is fully described (e.g., methodology, assumptions and resulting risk values) and mitigated with all feasible measures.





### 3.0 Overview of Risk Assessment Methodology and Guidance Documents

This document bases the risk assessment methodology on the procedures developed by the California Office of Environmental Health Hazard Assessment (OEHHA) to meet the mandates of the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588). The Hot Spots program applies to stationary sources and requires affected facilities to prepare a toxic emissions inventory, and if the emissions are significant, that a risk assessment be prepared. The OEHHA procedures can be found at [http://www.oehha.ca.gov/air/hot\\_spots/index.html](http://www.oehha.ca.gov/air/hot_spots/index.html) and describe:

- The toxicity factors associated with various substances,
- How these toxicity factor are to be used to determine the acute, chronic, and cancer risks associated with downwind concentrations of chemicals in the air at various receptors, and
- Dispersion modeling procedures.



### 4.0 CEQA Exemptions

The first step in a risk analysis is to determine if the project is statutorily or categorically exempt from CEQA. There are no exceptions to statutorily exempt projects, however, certain projects that are categorically exempt under the state or air district guidelines, may emit toxic emissions or may be impacted by existing toxic sources. Table 1 shows the exceptions from categorical exemptions where an HRA evaluation is needed. These are situations where a project proponent or lead agency may not rely on a categorical exemption because the health risk may trigger an exception (CEQA §15300.2), preventing their use. In such cases, a negative declaration or environmental impact report should be prepared.

**Table 1**  
**Categorical Exemptions Requiring HRA Evaluation<sup>4</sup>**

Categorical Exemption	Exempt Activity with Possible Impact
15301. Existing Facilities	This exemption also allows use of a single-family residence as a day care facility without CEQA review. <i>However, such uses near existing TAC emissions may warrant further review.</i>
15302. Replacement or Reconstruction	This exemption allows the replacement or construction of existing schools and hospitals in certain cases without CEQA review. <i>However, locating new facilities near existing TAC emissions may warrant further review.</i>
15303. New Construction or Conversion of Small Structures	This exemption class allows small new construction projects to proceed without CEQA review. <i>However, projects claiming this exemption should be reviewed for possible TAC impacts from ongoing nearby sources.</i>
15314. Minor Additions to Schools	This exemption class allows small school addition projects to proceed without CEQA review. <i>However, projects claiming this exemption should be reviewed for possible TAC impacts from ongoing nearby sources.</i>
15316. Transfer of Ownership of Land in Order to Create Parks	Exemptions in this class should be reviewed for possible impacts from locating near ongoing sources of TAC.
15332. In-Fill Development Projects.	This exemption class allows certain in-fill development projects to proceed without CEQA review. <i>However, projects claiming this exemption should be reviewed for possible TAC impacts from ongoing nearby sources such as high volume roadways and freeways.</i>

<sup>4</sup> Although methodology for assessing health risk for construction projects is not included in this document, lead agencies under CEQA are required to identify health risk from construction activities or projects and mitigate if they are deemed significant.



## 5.0 Screening Risk Assessments

Various tools already exist to perform a screening analysis from stationary sources impacting receptors (Type A projects) as developed for the AB2588 Hot Spots and air district permitting programs. Local air districts should be contacted for appropriate screening tools for proposed projects. Screening tools may include: prioritization charts, SCREEN3 and various spreadsheets.

For projects being impacted by existing sources (Type B projects), one screening tool is contained in the ARB Handbook<sup>4</sup>. The handbook includes a table (reproduced in these guidance documents as Table 2) with recommended buffer distances associated with various types of common sources. ARB's Handbook focuses on community health and provides important public health information to land use decision makers. In this document, ARB's primary goal is to provide information that will help keep California's children and other vulnerable populations out of harm's way with respect to nearby sources of air pollution.

For example, as shown in Table 2, ARB recommends avoiding siting new sensitive land uses such as residences, schools, daycare centers, playgrounds, or medical facilities within 500 feet of a freeway, urban roads with traffic volumes exceeding 100,000 vehicles/day, or rural roads with volumes greater than 50,000 vehicles/ day. Therefore, siting a residential project within 500 feet of a freeway, and the associated public health risks, should be disclosed as such in a CEQA document. Re-designing the project so that sensitive receptors are moved greater than 500 feet away from such roadways may mitigate the risk. Other non-sensitive land uses such as commercial uses may be sited in this area. ARB recommends that their guidelines be considered by the decision makers along with housing needs, economic development priorities, and other quality of life issues. It should also be noted that health risk assessments conducted on sensitive land uses in close proximity to freeways and other high traffic roadways may not thoroughly characterize all the health risk associated with nearby exposure to traffic generated pollutants.

**Table 2**  
**Recommendations on Siting New Sensitive Land Uses Such As Residences, Schools, Daycare Centers, Playgrounds, or Medical Facilities**<sup>5</sup>

Source Category	Advisory Recommendations
Freeways and high-traffic roads	<ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles per day.</li> </ul>
Distribution centers	<ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week).</li> <li>Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.</li> </ul>
Rail yards	<ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard.</li> <li>Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.</li> </ul>
Ports	<ul style="list-style-type: none"> <li>Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.</li> </ul>
Refineries	<ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.</li> </ul>
Chrome platers	<ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.</li> </ul>
Dry cleaners using perchloroethylene	<ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district.</li> <li>Do not site new sensitive land uses in the same building with perc dry cleaning operations.</li> </ul>
Gasoline dispensing facilities	<ul style="list-style-type: none"> <li>Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.</li> </ul>

<sup>5</sup>

- These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.
- Recommendations are based primarily on data showing that the air pollution exposures addressed here (i.e., localized) can be reduced as much as 80% with the recommended separation.
- The relative risk for these categories varies greatly. To determine the actual risk near a particular facility, a site-specific analysis would be required. Risk from diesel PM will decrease over time as cleaner technology phases in.
- These recommendations are designed to fill a gap where information about existing facilities may not be readily available and are not designed to substitute for more specific information if it exists. The recommended distances take into account other factors in addition to available health risk data (see individual category descriptions).
- Site-specific project design improvements may help reduce air pollution exposures and should also be considered when siting new sensitive land uses.
- This table does not imply that mixed residential and commercial development in general is incompatible. Rather it focuses on known problems like dry cleaners using Perchloroethylene that can be addressed with reasonable preventative actions.
- A summary of the basis for the distance recommendations can be found in the ARB Handbook.



## 6.0 Refined Risk Assessments

If a screening risk assessment shows that a risk is a concern, then a more refined analysis may be prepared. The refined analysis for the project may show lower risks, and provide more accurate information for decision makers. The screening assessment uses more conservative assumptions and thus gives higher risk than refined assessment. Risk assessments are normally prepared in a tiered manner, where progressively more input data is collected to refine the results. These guidelines include the evaluation of both mobile and stationary sources.

Attachment 1 to this document consists of the **Technical Modeling and Risk Assessment Guidance** which address various air quality dispersion modeling issues pertinent to California and is based primarily on information found in ARB, EPA and OEHHA guidance.

Appendix A, **Meteorological Data**, provides information on preparing meteorological data, mixing height and upper air data and land use characterization.

Appendix B, **Modeling and Exposure Assessment Input and Output Data**, is a checklist of parameters designed to provide an overview of all information that should be submitted for a refined air dispersion modeling assessment.

## 7.0 Risk Thresholds

An air district can set CEQA significant risk thresholds (e.g. the excess cancer risk shall be less than ten per million, the acute or chronic hazard index shall be less than one, or other significance levels as arrived at through a public process) that are used on a per-project basis. If the air district's governing board has adopted specific risk thresholds, the lead agency may choose to use them to determine acceptable risk levels. Additionally, clear risk thresholds are helpful when mitigation measures are necessary. The degree of mitigation can be clearly defined when a risk threshold has been determined before a project is proposed.

The absence of a risk threshold does not relieve an agency of its obligation to address toxic emissions from projects under CEQA. The implications of not having a threshold are different depending on the role the agency has under CEQA – whether it is acting as a commenting agency, as a responsible agency, or as a lead agency.

### 7.1 Significant Risk Thresholds - Type A (Impacting Sources)

For Type A projects, those that generate toxic air contaminants (such as gasoline stations, distribution facilities or asphalt batch plants), air districts are uniform in their recommendation to use the significance thresholds that have been established under each district's "Hot Spots" and permitting programs. For the majority of the air districts the **excess cancer risk** significance threshold is set at **10 in a million**. For toxic air contaminants with acute and chronic, non-carcinogenic health effect, a **hazard index of one** must not be exceeded. Depending on the substances being emitted, a project with a hazard index greater than one could result in adverse health effects of various sorts. It should be noted that a hazard index exceeding one may need additional analysis to determine whether the acceptable level of acute or chronic risk could be higher depending upon the safety factors that were incorporated into the reference exposure levels (RELs) associated with the hazard index results. This additional analysis could be considered an additional refinement tier.

It should be noted that these thresholds may be applied differently for air district permitting, the Hot Spots program, and CEQA. For air district permitting, the thresholds apply only to individual permit units. For the Hot Spots program, the thresholds apply to the entire facility excluding vehicle emissions. Neither the permitting programs nor the Hot Spots program apply to vehicle emissions. For CEQA, the thresholds apply to all facilities including vehicle emissions, and road related emissions.

### 7.2 Significant Risk Thresholds - Type B (Projects Impacted by Existing Sources)

For Type B projects, those that are impacted by existing sources, air districts are not uniform in their recommendation on what significance threshold should be adopted or what processes should be undertaken when disclosing potential risks.



The CEQA statutes encourage an air district or any lead agency to establish significance thresholds under CEQA for any pollutant. While there are considerations that support the establishment of thresholds, there is no obligation to do so. The absence of a threshold does not relieve agencies of their obligations to address toxic emissions from projects under CEQA. The implications of not having a threshold are different depending on the role the agency has under CEQA – whether it is acting in commenting agency, as a responsible agency, or as a lead agency.

An air district or other lead agency may elect not to establish significance thresholds for a number of reasons.

A lead agency or air district may also determine there is insufficient information to support selecting one specific threshold over another. Air districts have historically recommended CEQA thresholds for air pollutants in the context of the air district's clean air attainment plan, or (in the case of toxic air pollutants) within the framework of a rule or policy that manages risks and exposures due to toxic pollutants.

Significance levels have been approached differently by air districts as enumerated below:

- Thresholds can be based on a specific risk level such that a 10 per million excess cancer risk and an acute and chronic hazard index of one should not be exceeded. These thresholds tend to be consistent with the Hot Spot Program thresholds.
- Thresholds can also be based on the region's existing background cancer risk value if one exists.
  - One option is to establish a risk level equal to a region's background risk level.
  - Another option is to establish a risk level equal to twice a region's background risk level.
  - Still another option is to look at the ambient risk in the immediate vicinity of the project area rather than the regional risk level.
- Case by case thresholds may also be defined.



## 8.0 Mitigation Measures

CEQA requires that adverse environmental impacts of a proposed project be identified, assessed, avoided, and, if deemed significant, mitigated (as feasible) to a level that is considered less than significant. “Feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” (CEQA Guidelines §15364).

In cases where significant adverse impacts are not avoided or substantially lessened, the public agency may approve the project if it first adopts a “statement of overriding considerations.” The statement of overriding considerations sets forth the specific reasons why the public agency found the project's benefits outweigh its unavoidable adverse environmental effects (CEQA Guidelines §15043).

In addition to being a CEQA requirement, mitigating public exposure to toxic air pollution is needed to achieve air district goals. All potentially significant emission sources must be mitigated to the greatest extent feasible, including placing people out of harm's way.

Table 3 presents mitigation measures that are currently considered to be feasible to reduce health risk from both Type A and Type B projects. The mitigation measures included in the table are not considered to be exhaustive. The lead agency and project proponents are encouraged to think creatively in devising measures to mitigate air quality impacts. However, the air districts recognize that the final determination of feasibility for a project will be determined by the lead agency. Aside from the mitigation measures shown below, knowing about the regulatory programs to reduce air pollutant emissions through statewide strategies provide information to local air districts and lead agencies to help assess and mitigate cumulative air pollution impacts as well.

### 8.1 Mitigations due to Air Toxic Control Measures

ARB has been developing Air Toxic Control Measures (ATCMs) for many years. Many of these measures have a phase-in schedule. Implementation of others has already been completed. While cancer and non-cancer risks from the air toxic sources implementing ATCMs are expected to decrease with time, the Office of Environmental Health Hazard Assessment (OEHHA) recommends that it is inappropriate to assume these yet-to-be realized emissions reductions in a health-risk assessment. However, the project proponent is encouraged to become familiar with existing and proposed ATCMs in order to determine if any of the ATCMs affect project-specific emissions.

### 8.2 Mitigating Through Land Use and Design

To a certain extent, the long-term air quality impact of a project is a function of its design. The layout of streets, the mix of land uses, and the placement of homes and businesses can all affect overall project emissions. Yet in many instances, the air quality impacts of a project are not considered until well after a project has been designed. At such a late stage, it can be very difficult to make any substantial changes to the project to reduce the project's air quality impact.



As indicated throughout the ARB Handbook, land use agencies are strongly encouraged to consult early and often with local air districts. Including air quality considerations during the initial design phase can help an applicant to implement design features that will reduce its air quality impact.

In addition to considering the suitability of the project location, opportunities for mitigation of air pollution impacts through design should be considered. In some cases, control devices and changes in processes may be implemented at the source in order to reduce the risk from toxic air contaminant emissions. Examples of land-use based air quality specific performance standards include the following:

- Placing a process vent away from the direction of nearby receptors, or increasing the stack height so that emissions are dispersed to reduce the emissions impact on the immediate surroundings.
- Limiting the hours of operation of a facility to avoid excess emissions exposure to nearby individuals.
- An ordinance that requires fleet operators to use cleaner vehicles before project approval (if a new business), or when expanding the fleet (if an existing business).
- Providing alternate routes for truck operations that discourage detours into sensitive receptor neighborhoods.

While such measures may reduce the dimensions of a buffer zone, they do not obviate the need to maintain buffer zones to protect public health and safety. This is particularly true in situations where a sensitive receptor is encroaching on an existing source of toxic air contaminant. Also note disclosure statements, community alert procedures, etc., that are targeted at potential receptors are not appropriate mitigations to be used in lieu of buffer zones or technical controls.

Table 3 below contains examples of both project and program-level mitigation measures.

- Project-level mitigation measures are applicable to development which results in the implementation or modification of a land use which creates unacceptable levels of risk. Examples include redesigning the project to locate receptors away from TAC sources, the installation of barriers and/or vegetation and indoor air filtration.
- Program-level mitigation measures, on the other hand, are applicable to long-range community planning such as General Plans, and address land use incompatibility at a much earlier stage. Examples of program-level mitigation measures include rezoning vacant land adjacent to high-volume roadways, ports, railroads or heavy industry to avoid future proposed siting of residential and/or sensitive receptors.

### 8.3 Mitigation Effectiveness

The mitigation measures identified in Table 3 include both quantifiable and unquantifiable measures.

#### 8.3.1 Quantifiable Mitigation Measures

The effect of quantifiable mitigation measures can be modeled or calculated beyond a reasonable doubt. As pertaining to health risk impacts, quantifiable mitigation measures generally result in a measurable reduction of toxic air contaminant emissions (such as DPM), or a measurable decrease in exposure to such emissions through increased buffer distances, reduced exposure durations or control devices having a certified control effectiveness.

Examples of quantifiable mitigation measures include:

- Diesel particulate filters: as of 2008, DPFs reduce the emissions of diesel particulate matter up to 85% as verified by the CARB.
- Increasing the distance between a TAC source and receptor may reduce the receptor's level of exposure to TACs; the effect of this mitigation measure can be estimated through dispersion modeling;
- Idling restrictions can greatly reduce or completely eliminate DPM emissions from stationary trucks; if such restrictions are quantitative and include a concrete limit on the number of minutes a truck (or similar) is allowed to idle, the benefits of this mitigation measure can be modeled.

Several cautionary notes regarding estimating the effectiveness of mitigation measures are warranted:

- Clearly explain the assumptions underlying the environmental document's analysis of mitigation measure effectiveness. The analysis should specifically describe the mitigation measure, identify the source(s) of air pollutants that are expected to be affected by the measure, clearly explain how and to what extent the measure will affect the source(s), and identify the basis for the estimate (empirical observations, computer modeling, case studies, etc.). Critical assumptions should be linked to the mitigation monitoring and reporting program.
- Be specific regarding implementation of mitigation measures. The environmental document should describe each mitigation measure in detail, identify who is responsible for implementing the measure, and clearly explain how and when the measure will be implemented. Methods for assessing the measure's effectiveness once it is in place, and possible triggers for additional mitigation if necessary, may be needed. This level of detail regarding mitigation measure implementation frequently is not addressed until the preparation of the mitigation monitoring and reporting program, which often takes place very late in the environmental review process. In order to reliably assess the effectiveness and feasibility of mitigation



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measures, however, air agencies believe it is necessary to consider the specifics of mitigation measure implementation as early in the environmental review process as possible.

- Be sure not to double count the effect of proposed mitigation measures. The project description and assumptions underlying the analysis of project impacts should be carefully considered when estimating the effect of mitigation measures. If certain conditions or behavior are assumed in the impact analysis, then credit may not be claimed when proposing mitigation measures.
- Health risk assessments discussed in this document estimate outdoor risk. While some mitigation measures may reduce risks by filtering outdoor air to be used indoors, they do nothing to reduce the risk assessment values for outdoor air.

### 8.3.2 Unquantifiable Mitigation Measures

In some cases, it simply may not be possible to quantify the effect of proposed mitigation measures. It may be that the specific conditions surrounding a particular project are so unique as to render extrapolation from other examples unreliable. A proposed measure may be innovative, with little precedent. The combined effects of a package of measures may be too difficult to quantify. While a certain degree of professional judgment is usually involved in estimating the effectiveness of mitigation measures, speculative estimates should be avoided. If the project proponent cannot quantify mitigation effectiveness with a reasonable degree of certainty, the environmental document should at least address effectiveness qualitatively. If the lead-agency makes a finding that non-quantified mitigation measures reduce an impact to a level of insignificance, the document should provide a detailed justification of that conclusion.

#### 8.3.2.1 Effects of Vegetation Next to Roadways

The Sacramento Air District funded a study to measure the removal rates of particulate matter passing through leaves and needles of vegetation. Particles were generated in a wind tunnel and a static chamber and passed through vegetative layers at low wind velocities. Redwood, deodar cedar, live oak, and oleander were tested. The results from this study indicate that all forms of vegetation able to remove 65-85 percent of very fine particles at wind velocities below 1.5 meters per second (roughly 3 miles per hour) with redwood and deodar cedar being the most effective.

This study supports the effectiveness of planting finely needled trees along sources of toxic particulate matter as an air toxics mitigation measure. Though further studies that reflect actual roadway conditions are needed to better quantify the real-world effectiveness of this mitigation measure, projects that propose sensitive receptors adjacent to sources of particulate matter such as freeways, major roadways, rail lines, and rail

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yards should consider tiered plantings of redwood and/or deodar cedar in order to reduce toxic exposures.

#### 8.3.2.2 No Idle Zone

California law currently places restrictions on idling of heavy-duty diesel motor vehicles to reduce health risk impacts from diesel emissions. The 2003 school bus idling airborne toxic control measure (ATCM) requires a driver of a school bus or vehicle, transit bus, or other commercial motor vehicle to manually turn off the bus or vehicle engine upon arriving at a school and to restart no more than 30 seconds before departing. A driver of a school bus or vehicle is subject to the same requirement when operating within 100 feet of a school and is prohibited from idling more than five minutes at each stop beyond schools, such as parking or maintenance facilities, school bus stops, or school activity destinations.

California's more recent anti-idling regulations (with some exemptions) require that drivers of diesel-fueled commercial vehicles weighing more than 10,000 pounds:

- Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location,
- Shall not use diesel-fueled auxiliary power units for more than 5 minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle equipped with a sleeper berth, at any location.

Lead agencies may place additional requirements on heavy duty diesel delivery and haul trucks less than 10,000 pounds, and create "no idle" zones at locations where there is a potential for significant health risk. It may not be possible to quantify the emission reductions associated with the creation of a no idling zone. However, this feasible mitigation measure may eliminate idling emissions and may avoid potentially significant health risk impacts.

**Table 3**  
**Mitigation Measures**

Source Category	Mitigation Measure (listed in order of effectiveness by category)
Stationary Sources Type A (Sources Impacting receptors) (e.g., Auto body shops, Gas Stations, Manufacturers, Metal Platers, Chemical Producers, Rock Quarries, Incinerators, Power Plants, Diesel Engines)	<ol style="list-style-type: none"> <li>1. Move source location to provide effective buffer zone.</li> <li>2. Reduce throughput.</li> <li>3. Install Toxic Best Available Control Technology (TBACT) to reduce the risks to below significance.</li> <li>4. Install other than TBACT air pollution control devices or process operation modifications.</li> <li>5. Address Diesel vehicle engines as listed below.</li> </ol>



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Source Category	Mitigation Measure (listed in order of effectiveness by category)
Onsite Diesel Truck Activities (including transport refrigeration units)	<p><u>Idling Mitigation Measures:</u></p> <ol style="list-style-type: none"> <li>1. Move source location to provide effective buffer zone.</li> <li>2. Establish truck parking restrictions.</li> <li>3. Provide utility hook-ups for trucks that need to cool their load.</li> <li>4. Limit truck idling to &lt;5 minutes (State law limits to 5 minutes of idling, and includes various exemptions).</li> <li>5. Require Trucks to operate an Auxiliary Power Unit.</li> <li>6. Require the installation of electrical hookups at loading docks and the connection of trucks equipped with electrical hookups to eliminate the need to operate diesel-powered TRUs at the loading docks.</li> </ol> <p><u>Onsite Truck Traveling Emissions:</u></p> <ol style="list-style-type: none"> <li>1. Move source location to provide effective buffer zone.</li> <li>2. Restrict operation to 2007 model year or newer trucks.</li> <li>3. Require or provide incentives to use Diesel Particulate Filters for truck engines.</li> <li>4. Re-route truck traffic by adding alternate access for truck traffic or by restricting truck traffic on certain sensitive routes.</li> <li>5. Improve traffic flow by signal synchronization.</li> <li>6. Implement incentive for improved communications of fluctuating demand forecasts for labor and equipment among carriers and operators.</li> </ol>
High-traffic road vehicle emissions impacting adjacent receptors	<ol style="list-style-type: none"> <li>1. Move receptors or source to provide effective buffer zone between the source and the receptor.</li> <li>2. Improve traffic flow by signal synchronization.</li> <li>3. Plant vegetation between receptor and roadway.</li> <li>4. Construct wall barriers between receptor and roadway.</li> <li>5. Install newer electrostatic filters in adjacent receptor buildings.</li> <li>6. Fund "clean" street sweepers.</li> <li>7. Improve road infrastructure to facilitate improved traffic flow without inducing capacity.</li> <li>8. Improve alternative transportation options</li> </ol>
Freeway vehicle emissions impacting adjacent receptors	<ol style="list-style-type: none"> <li>1. Move receptors or source to provide effective buffer zone between the source and the receptor.</li> <li>2. Plant vegetation between receptor and roadway.</li> <li>3. Construct wall barriers between receptor and roadway.</li> <li>4. Install newer electrostatic filters in adjacent receptor buildings.</li> <li>5. Improve road infrastructure to facilitate improved traffic flow.</li> </ol>
Marine Vehicles (e.g., recreational boating, commercial marine operations, hoteling operations, loading and unloading services)	<ol style="list-style-type: none"> <li>1. Move receptors or source to provide effective buffer zone between the source and the receptor.</li> <li>2. Require or provide incentives to install add-on Diesel Particulate Matter control devices or cleaner engines or boilers.</li> <li>3. Require use of electric power when berthed.</li> <li>4. Require cleaner fuels.</li> <li>5. Limit vessel speed.</li> </ol>

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Source Category	Mitigation Measure (listed in order of effectiveness by category)
Railroad (i.e., switch yards, maintenance yards, intermodal centers)	<ol style="list-style-type: none"> <li>1. Move receptors or source to provide effective buffer zone between the source and the receptor.</li> <li>2. When ambient temperatures are above 50 deg F, minimize locomotive engine idling by shutting down and re-starting engines.</li> <li>3. Require Idle Reduction Technologies - The rail industry has developed and designed a new Auxiliary Power Unit (APU) system that provides power during idling conditions and shuts down the main locomotive engine. Installing APU system reduces locomotive PM emissions by 84 percent.</li> <li>4. Require new engine technologies be applied to the engines - Modifying fuel injectors, which includes fuel injection pressure, fuel spray pattern, injection rate and timing, has been found to reduce emissions from locomotive diesel engines.</li> <li>5. Require hybrid switcher locomotives.</li> <li>6. Require use of locomotive technology that meets or exceeds the latest EPA emission regulations for locomotives.</li> <li>7. Apply the 1998 Railroad MOU for South Coast Air Basin.</li> <li>8. Apply the 2005 Statewide MOU for Rail Yard Risk Reduction.</li> </ol>

### 8.4 Mitigation Monitoring and Reporting

#### 8.4.1 Primary Mitigation Measures

As part of CEQA environmental review procedures, Public Resources Code Section 21081.6 requires a public agency to adopt a monitoring and reporting program for assessing and ensuring efficacy of mitigation measures applied to the proposed project. Specifically, the lead or responsible agency must adopt a reporting or monitoring program for mitigation measures incorporated into a project or imposed as conditions of approval. The program must be designed to ensure compliance during project implementation. As stated in Public Resources Code, Section 21081.6 (a) (1):

*"The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program."*

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This requirement is intended to assure that mitigation measures included as conditions of project approval are indeed implemented. A mitigation monitoring and reporting program should include the following components:

- A description of each mitigation measure adopted by the Lead Agency.
- The party responsible for implementing each mitigation measure.
- A schedule for the implementation of each mitigation measure.
- The agency or entity responsible for monitoring mitigation measure implementation.
- Criteria for assessing whether each measure has been implemented.
- Enforcement mechanism(s).

The mitigation monitoring and reporting program is not required to be included in the environmental document, but its inclusion will encourage the Lead Agency and other entities to specifically consider the feasibility and effectiveness of each mitigation measure while the environmental analysis is still underway. If a responsible agency or any agency having jurisdiction over natural resources affected by the project proposes mitigation measures, the Lead Agency may require that agency to prepare a monitoring and reporting program for those mitigation measures.

#### 8.4.2 Contingency Mitigation Measure

A mitigation implemented to reduce health risk for a particular project may degrade or fail over time. Continuous monitoring and enforcement programs are recommended to ensure the ongoing effectiveness of all mitigation measures over the project life. In the instance that one or more mitigation measures fail or become ineffective, they should be replaced with mitigation measures of equal or greater effectiveness.

Examples of health risk mitigation measures subject to degradation and/or failure include:

- Vegetation barriers, which may die due to natural causes or lack of upkeep;
- Particulate filters, which may become clogged, mechanically damaged or simply reach the end of their design life; and,
- Indoor air filtration systems, which may become clogged or fail completely due to lack of regular maintenance.



## 9.0 Public Participation

As emphasized in the ARB Handbook, community involvement is an important part of the overall land use approval process. Public participation is critical when proposed projects could create increased health risk to the individuals or the community. To that extent, engaging community members during the initial phase of the project evaluation process provides a communication conduit between impacted individuals, project proponents and the decision makers. This dialog aims to expand the community's overall understanding of the risk assessment process and the resulting health impact values. While the air district is not typically the lead agency for a project undergoing health risk evaluation, it plays a critical role in working with the impacted community to explain the technical modeling tools and assumptions used to calculate the overall risk values that are ultimately provided to local decision makers for approval action.

Active public participation requires engaging individuals in ways that do not require prior knowledge of air pollution issues impacting their communities. Information should be provided to illustrate how a land use decision can affect the health of the community due to emission impacts from Type A or to Type B projects. Due to the overly technical nature of health risk assessments, air districts need to take specific efforts to develop messages and outreach tools that will assist to convey complex issues to a non-technical community. The outreach process needed to build effective community participation requires data, methodologies and formats customized to the needs of the specific community. Depending on the community characteristics cultural barriers, such as translation to another language, need to be assessed prior to conducting community outreach. More importantly, it requires the strong collaboration of community members and agencies that review and approve projects and land uses of the local community.

The ARB Handbook's Table 7-1, Public Participation Approaches includes some general outreach strategies that air districts might consider in designing an outreach program to increase understanding of the air pollution impacts to specific land use projects. Such a program could consider the preparation and presentation of information in a way that supports sensible decision-making and public involvement. In order to build community trust in the health risk assessments being conducted for proposed development, public participation should occur at the initial phases of project evaluation and continue throughout the approval process.



## 10.0 HRA Issues in the CEQA Process

There are number of issues that have been encountered at the local decision making level that present challenges during the evaluation of health risk impacts from proposed land use projects. To provide more assistance to air districts, lead agencies and community members on how to overcome these challenges, this chapter outlines a few issues that have been encountered during the project evaluation phase, as well as potential solutions to reduce health risk, minimize errors and assist decision makers in their final action.

### 10.1 Smart Growth

Land use planners, developers, public health agencies and environmentalists alike all struggle with the apparent dichotomy between the public health benefits of limiting development adjacent to freeways and major roadways, and the public health benefits of smart growth strategies which call for development closer in to the urban core, often adjacent to major travel corridors, as a way to reduce overall emissions. Guidance that helps local planners disclose potential risk, and/or seeks to limit development adjacent to freeways and major roadways appears to conflict with smart growth policies, especially when the guidance affects small projects.

A potential solution to this dilemma is the identification and implementation of effective mitigation measures that will help reduce impacts to sensitive receptors, thereby supporting smart growth policies. Table 3 contains program-level TAC mitigation measures. Such measures are applicable to long-range community planning programs such as General Plans and address land use incompatibility at an early stage. These measures are particularly effective in that they can prevent many high-risk projects from being considered or proposed in the first place, thereby eliminating the necessity for project-level mitigation which may not always be feasible or sufficiently effective. Examples of program-level mitigation measures include rezoning vacant land adjacent to freeways, high-volume roadways, ports, railroads or heavy industry to avoid future proposed siting of residential and/or sensitive receptors.

### 10.2 Less than Lifetime Cancer Risk Exposures

The standard OEHHA 70 year exposure timeframe for HRAs is often vigorously challenged as to whether it is reasonable to base residential cancer risk on a 70 year, 24 hour per day, seven day per week exposure. A 70-year lifetime exposure is a worst-case assumption. Shorter exposure periods can be appropriate depending on the situation. The cancer risks caused by projects impacting offsite workers can be factored in accordance with guidance provide in the State Office of Environmental Health Hazard Assessment provided a document called the *Air Toxic Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments*, August 2003. This guidance document also describes how the exposure period can be reduced from 70 year to shorter periods for Type A projects that will operate for periods less than 70 years. This information is also included in the *Technical Modeling and Risk Assessment Guidance* component of this document in Attachment 1.

### 10.3 Mitigating Roadway Toxics

As discussed above, lead agencies often struggle with requiring mitigation when, due to a lack of a threshold, the roadway toxics impacts are not considered "significant." At other times, lead agencies are eager to require mitigation, but feel most comfortable being able to point to studies that quantify the actual mitigation levels before asking project proponents to bear the additional costs of the mitigation. In addition, lead agencies often do not feel comfortable asking a project to make changes via implementing mitigation when the project complies with existing zoning requirements and does not request exemptions. While this is a contentious issue, districts may choose to suggest mitigation measures regardless of whether a health risk determination was made by the lead agency.

### 10.4 Existing Background Risk

Often, environmental documents with site specific HRAs contain lengthy discussions comparing a project's health risk to the existing background health risk levels, and often, potential project-specific cancer risk levels are expressed as a percentage of the existing background risk without disclosure of the actual additional risk due to the project. It is the actual additional risk due to the project (Type A), or the risk to the project (Type B) that must be disclosed and compared to CEQA significance thresholds.

### 10.5 Inappropriate Discounting of Risks

Standardized health risk assessment methodologies have been developed to reduce inconsistencies between HRAs and aid in comparing impacts on receptors. However, in practice inappropriate HRA calculations are still carried out and presented as the basis for public disclosure and notification. Such inappropriate HRA calculations are most often made in an attempt to present reduced risk values compared to the higher results produced by standard methodologies. This is a significant concern, especially with respect to health risks associated with locating sensitive land uses in proximity to freeways and other high traffic roadways, where even the standardized HRA modeling methods may not thoroughly characterize all the health risk associated with nearby exposure to traffic generated pollutants.

Inappropriate HRA methodologies often result in protracted controversy, which is sometimes played out in the public arena - for example, at project approval hearings. To minimize these situations, the HRA preparer should adhere to the standard risk calculation methodologies set forth by OEHHA, the Air Resources Board, and the local air district, and as described in this document.

Examples of some mistakes to avoid are described in the following paragraphs.

- One inappropriate calculation is to calculate the cancer risk using the 70-year exposure timeframe, but then reduce the risk values by dividing the risk values by the number of receptors in the subdivision. Doing so is misleading and not scientifically supported. Potential cancer risk should be expressed as probability per million, based upon OEHHA recommendations.



- For Type A projects, it is also inappropriate to present risk values as a percentage of some existing risk value, such as the existing background risk. Often this is done in an attempt to persuade readers that the project specific risk is of little consequence because the increased risk is small compared to the background risk. In cases where project specific risk is compared to other risks or expressed as a percentage of the existing background, it should be made clear that the project specific risk is in addition to the existing background risk.
- Another inappropriate calculation sometimes included in risk assessments is to base emissions on emission factors that may result from future actions, such as emission reduction rules that have not yet gone into effect, or expected emission reductions due to expected market forces.

#### 10.6 *Misleading Comparison of Cancer Risks*

Comparing cancer risks can be misleading in a CEQA document. Some CEQA documents discuss a variety of cancers and the prevalence of it in our population. It's sometimes stated, for example, that currently throughout the United States, one in three or four persons will experience cancer sometime during their lifetime. This can be a misleading statistic if it is used to imply that the incremental probability of increased cancer cases due to toxic airborne emissions are very small compared to the overall probability of cancer. For example, a Health Risk Assessment may find that the increased probability of cancer cases is 200 in one million for certain sensitive receptors located near a busy freeway. To compare that HRA result with the overall population's cancer incidence would discount the risk unfairly. The CEQA document should disclose the risk without any such comparisons.

#### 10.7 *"Experts Disagree"*

When project proponents submit HRAs and related materials that are developed via methodologies not supported by the air district or OEHHA, protracted controversy can result. One air district noted that, despite comment from OEHHA and ongoing district comments on the inappropriate discounting of a project's HRA results, those results remained unchanged in the Final EIR. The Final EIR discussed the nature of the disagreement, citing Section 15151 of the CEQA Guidelines which states that disagreement among experts "does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts." Ultimately, the lead agency will make a land use decision based on their understanding. But for sources that need an air district permit, the applicable air district's risk assessment procedures will apply.

## 11.0 Conclusion

The study of the impact of toxic air emissions on sensitive receptors is an evolving one. Air districts in the state of California generally have had a consistent way of performing health risk assessments of stationary sources on nearby sensitive receptors (Type A projects). However, with the publication in 2005 of ARB's Handbook, the issue of the effect of mobile sources on sensitive receptors (Type B projects) required air districts to augment their guidance. This CAPCOA guidance reflects the fact that currently, the various air districts in the state have different approaches to the topic. For example, some districts have developed a threshold of significance for these projects and some have not. Despite these differences, this document offers some common guidance about the need to analyze the impacts, to disclose the risk to decision makers and to mitigate it. As health risk analysis tools, methodology, and protocol as developed, the document will be revised.



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# **CEQA Air Quality Handbook**

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**A GUIDE FOR ASSESSING  
THE AIR QUALITY IMPACTS  
FOR PROJECTS SUBJECT TO CEQA REVIEW**

**April 2012**



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**EXHIBIT 3**



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## LIST OF ACRONYMS

ACM	Asbestos Containing Material
ADT	Average Daily Trips
APCD	San Luis Obispo County Air Pollution Control District
APS	Auxiliary Power System
ARB	California Air Resources Board
ATCM	Air Toxics Control Measure
BACT	Best Available Control Technology for Construction Equipment
CAAA	1990 Clean Air Act Amendments
CAMP	Construction Activity Management Plan
CAP	Clean Air Plan for San Luis Obispo County
CAPCOA	California Air Pollution Control Officers Association
CEQA	California Environmental Quality Act
CNG	Compressed Natural Gas
CO	Carbon Monoxide
CO2	Carbon Dioxide
DEIR	Draft Environmental Impact Report
DOC	Diesel Oxidation Catalyst
DPM	Diesel Particulate Matter
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
GHG	Greenhouse Gases
HRA	Health Risk Assessment
ITE	Institute of Transportation Engineers
LNG	Liquid Natural Gas
NESHAP	National Emission Standard for Hazardous Air Pollutants
NOA	Naturally Occurring Asbestos
NOP	Notice of Preparation
NO <sub>x</sub>	Oxides of Nitrogen
PM	Particulate Matter
PM <sub>2.5</sub>	Particulate Matter (less than 2.5 µm)
PM <sub>10</sub>	Particulate Matter (less than 10 µm)
ROG	Reactive Organic Gases
SLO	San Luis Obispo
TAC	Toxic Air Contaminant
VDECS	Verified Diesel Emission Control Systems
VMT	Vehicle Miles Traveled

## GLOSSARY

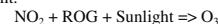
**Climate Change:** Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gases (GHGs), particularly those generated from the human production and use of fossil fuels.

**Diverted Trips:** Diverted linked trips, as defined by Institute of Transportation Engineers (ITE), are attracted from the traffic volume on a roadway within the vicinity of the generator but require a diversion from that roadway to another roadway to gain access to the site.

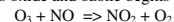
**Fugitive Dust:** Small particles which are entrained and suspended into the air by the wind or external disturbances. Fugitive dust typically originates over an area and not a specific point. Typical sources include unpaved or paved roads, construction sites, mining operations, disturbed soil and tilled agricultural areas.

**Greenhouse Gas:** The emissions that contribute to the climate change effect are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFC), chlorofluorocarbons (CFC) and sulfur hexafluoride (F<sub>6</sub>S).

**Ozone Precursors:** Gaseous compounds needed to form ozone by the process of photochemistry. Photochemical air pollution (primarily ozone) is produced by the atmospheric reaction of organic substances, such as reactive organic gases (ROG) and nitrogen dioxide (NO<sub>2</sub>) under the influence of sunlight.



During the summer, in areas with high emissions and high ozone concentrations, ozone concentrations are very dependent on the amount of solar radiation. Ozone levels typically peak in the late afternoon, at the end of the longest period of daily solar radiation. After the sun goes down, the chemical reaction between nitrous oxide and ozone begins to dominate and ozone usually decreases.



In some remote rural locations away from emission sources, ozone concentrations can remain high overnight because there are no NO sources to react with the existing ozone.

Ozone precursors are typically considered to be the combination of ROG + NO<sub>x</sub>.

**Particulate Matter:** Small particles that become airborne and have the potential to cause adverse health impacts. There are three general size components: 1) PM or Total Suspended Particulate (TSP) which includes all airborne particles regardless of size or source; 2) PM<sub>10</sub> which includes airborne particles 10µm in size and smaller; and 3) PM<sub>2.5</sub> or fine airborne particles 2.5µm and smaller.

**Primary Trips:** Trips made for the specific purpose of visiting the proposed facility.

**Passby Trip:** Trips made as an intermediate stop on the way from an origin to a destination without a route diversion.

**Sensitive Receptors:** Sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling unit(s). The location of sensitive receptors is needed to assess toxic impacts on public health.

**Smart Growth:** Smart or strategic growth is an urban planning and transportation theory that concentrates growth in the center of a city to avoid urban sprawl; and advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, complete streets, and mixed-use development with a range of housing choices.



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**Verified Diesel Emission Control Strategy:** Diesel vehicle or equipment exhaust retrofits that have been verified by the California Air Resources Board (ARB) that provide specified diesel particulate emission reductions when implemented in compliance with the ARB executive order for the device ([www.arb.ca.gov/diesel/verdev/verdev.htm](http://www.arb.ca.gov/diesel/verdev/verdev.htm)).

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**CEQA  
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**GUIDE FOR ASSESSING THE AIR QUALITY IMPACTS  
FOR PROJECTS SUBJECT TO CEQA REVIEW**

The purpose of this document is to assist lead agencies, planning consultants, and project proponents in assessing the potential air quality impacts from residential, commercial and industrial development. It is designed to provide uniform procedures for preparing the air quality analysis section of environmental documents for projects subject to the California Environmental Quality Act (CEQA). These guidelines define the criteria used by the San Luis Obispo County Air Pollution Control District (APCD or Air District) to determine when an air quality analysis is necessary, the type of analysis that should be performed, the significance of the impacts predicted by the analysis, and the mitigation measures needed to reduce the overall air quality impacts. The use of this document will simplify the process of evaluating and mitigating the potential air quality impacts from new development in San Luis Obispo County.

For further information on any of the topics covered in this handbook, review the APCD's website at [www.slocleanair.org](http://www.slocleanair.org) or contact us directly at (805) 781-5912.



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### 1 PROJECTS REQUIRING AIR QUALITY REVIEW AND ANALYSIS

The Air District has permit authority over many "direct" sources of air contaminants, such as power plants, gasoline stations, dry cleaners and refineries. Indirect sources are contributors to air pollution and include facilities and land uses which may not emit a significant amount of pollution themselves, but are responsible for indirect emissions, such as:

- Motor vehicle trips attracted to or generated by the land use;
- On-site combustion of natural gas, propane and wood for heating;
- Architectural coatings and consumer products; and,
- Landscape maintenance.

Emission impacts from both direct and indirect sources are typically identified and, if needed mitigated through the land use planning process under the guidelines and statutes of CEQA.

#### 1.1 ROLE OF THE SLO COUNTY APCD

Under CEQA, the SLO County APCD may act as a **lead, responsible or commenting agency**, reviewing and commenting on projects which have the potential to cause adverse impacts to air quality. The CEQA statutes and guidelines require lead agencies to seek comments from each responsible agency and any public agency that have jurisdiction by law over resources that may be affected by a proposed project (CEQA 21153 and 15366). For many development proposals, this typically involves projects where vehicle trip generation is high enough to cause or contribute to local emission levels capable of hindering the APCD's efforts to attain and maintain health-based air quality standards. It is in this context that local jurisdictions and planning bodies can make critical decisions that affect their future environment and that of neighboring communities as well.

Offshore activities within State waters, such as oil drilling and production, harbor dredging and cable installation are also subject to CEQA review and possible APCD permits depending on the nature of the activity.

#### 1.2 PROJECTS SUBJECT TO AIR QUALITY ANALYSIS

In general, any proposed project with **short-term construction** emissions or **long-term operational** emissions that may exceed an APCD threshold of significance, as identified in this Handbook, should be submitted to the SLO County APCD for review. If needed, the APCD will assist in refining impact evaluations and or appropriate mitigation measures. The project will be evaluated to determine the potential for significant air quality impacts, with further analysis or mitigation recommended if appropriate. Types of projects which generally fall into this category include:

- Discretionary Permits;
- Tract Maps;
- Development Plans;
- Site Plans;
- Area Plans;
- Specific Plans;
- Local Coastal Plans;
- General Plan Updates and Amendments;
- Large residential developments;
- Large commercial or industrial developments; and
- Remediation projects.

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The environmental documents associated with these types of projects and reviewed by the APCD include Initial Studies, Notices of Preparation (NOP), Negative Declarations, and Environmental Impact Reports (EIR), and other environmental documents prepared pursuant to CEQA and NEPA.

### 1.3 PROJECT INFORMATION NEEDED FOR SLO COUNTY APCD REVIEW

Early consultation with the APCD can ensure the environmental document adequately addresses air quality issues. In order to facilitate our review of the proposed project, the following information should be provided:

- Complete and accurate project description;
- Emission calculations for both construction and operational phase emissions;
- Relevant environmental documents, including draft EIRs, Initial Studies, Negative Declarations, etc;
- Other technical analyses that relate to air quality, including but not limited to traffic analyses, growth impact projections, land use elements, maps, health risk assessments, sensitive receptor locations etc; and,
- Mitigation Monitoring Program, if applicable.

### 1.4 OPERATIONAL SCREENING CRITERIA FOR PROJECT IMPACTS

General screening criteria used by the SLO County APCD to determine the type and scope of projects requiring an air quality assessment, and/or mitigation, is presented in Table 1-1. These criteria are based on project size in an urban setting and are designed to identify those projects with the potential to exceed the APCD's significance thresholds. Operational impacts are focused primarily on the indirect emissions (i.e., motor vehicles) associated with residential, commercial and industrial development.

Table 1-1 is based on ozone precursor and greenhouse gas (GHG) emissions and is not comprehensive. It should be used for general guidance only. This table is not applicable for projects that involve heavy-duty diesel activity and/or fugitive dust emissions. A more refined analysis of air quality impacts specific to a given project is necessary for projects that exceed the screening criteria below or are within ten percent (10%) of exceeding the screening criteria.

Table 1-1: Operational Screening Criteria for Project Air Quality Analysis<sup>(1, 2)</sup>

Land Use	Unit of Measure	Size of Urban/(Rural) Project Expected to Exceed the APCD Annual GHG Bright Line Threshold <sup>(3)</sup> of:	Size of Urban/(Rural) Project Expected to Exceed the APCD Daily Ozone Precursor Significance Threshold <sup>(4)</sup> of:
		1150 MT CO <sub>2</sub> e/year from Operational & Amortized Construction Impacts	25 lbs ROG+NO <sub>x</sub> /Day from Operational Impacts
<b>COMMERCIAL</b>			
Bank (with Drive-Through)		25	17
General Office Building		70	91
Government (Civic Center)		37	38
Government Office Building		26	21
Hospital	1,000 sq. ft.	31	50
Medical Office Building			36
Office Park			85
Pharmacy/Drugstore w/o Drive Thru			24
Pharmacy/Drugstore with Drive Thru			25
Research & Development			114

This table has been updated, July 2014. The revised version can be located on our web site by clicking [HERE](#).



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EDUCATIONAL <sup>(5)</sup>			
Day Care Center	1,000 SF	39	26
Elementary School		69	62
High School		62	61
Junior High School		72	65
Library		24	23
Place of Worship		77	44
Junior College (2yr)	Students	1070	1032
University/College (4yr)		464	487
INDUSTRIAL <sup>(6)</sup>			
General Heavy Industry	1,000 SF	53	311
General Light Industry		23	103
Industrial Park		36	113
Manufacturing		44	168
Refrigerated Warehouse-No Rail		47	237
Refrigerated Warehouse-Rail		50	324
Unrefrigerated Warehouse-No Rail		51	237
Unrefrigerated Warehouse-Rail		51	324
RECREATIONAL			
Fast Food Restaurant w/o Drive Thru	1,000 SF	2.9	2.6
Fast Food Restaurant with Drive Thru		5.7	3.5
Health Club		42	46
High Turnover (Sit Down Restaurant)		13.7	13.2
Movie Theater (No Matinee)		20	21
Quality Restaurant		18	21
Racquet Club		44	48
Recreational Swimming Pool		42	41
Arena	Acres	178	159
City Park		103	786
Golf Course		138	241
Hotel	Rooms	85	126
Motel		79	142
RESIDENTIAL			
Apartment High Rise	Dwelling Units	113	94
Apartment Low Rise		109 / (74)	94 / (71)
Apartment Mid Rise		112	94
Condo/Townhouse General		103 / (72)	93 / (69)
Condo/Townhouse High Rise		104	93
Congregate Care (Assisted Living)		196	157
Mobile Home Park		124	112
Retirement Community		169	- <sup>(7)</sup>
Single Family Housing		70 / (49)	68 / (50)
RETAIL			
Auto Care Center	1,000 SF	33	32
Convenience Market (24 hour)		5.5	3.3
Convenience Market w/ Gas Pumps		5.7	2.3
Discount Club		37	34
Electronic Superstore		50	48
Free Standing Discount Store		29	25

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Free Standing Discount Superstore		30	27
Hardware/Paint Store		28	22
Home Improvement Superstore		46	36
Regional Shopping Center		36	31
Strip Mall		40	38
Supermarket		17.2	12.5
Gasoline/Service Station	Pumps	32	10

1. The screening levels in this table were created using CalEEMod version 2011.1.1 with default San Luis Obispo County urban settings; some rural setting results are also included and are denoted in parentheses. If the project is not represented well by an urban settings, (e.g. urban fringe development where urban trip lengths are not representative), then the project impacts need to be specifically evaluated in CalEEMod using project specific information; modeling results, substantiated assumptions, and CalEEMod files need to be presented to the APCD for review and approval.

2. This screening table is based on annual GHG emissions and daily ozone precursor emissions, and is not comprehensive. It should be used for general guidance only. This table is not applicable for projects that involve substantial heavy-duty diesel activity and/or fugitive dust emissions. A more refined analysis of air quality impacts specific to a given project is recommended for projects exceeding the screening criteria values or that are within 10% of the screening criteria values in this table.

3. Use of this table does not preclude lead agencies from complying with Section 15064.4 of the California Environmental Quality Act ("CEQA") Guidelines which requires that "a lead agency should make a good-faith effort... to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the screening levels in this table, a refined emissions quantification and analysis should be conducted.

4. For ozone precursor evaluations the APCD considers CalEEMod winter scenario simulations worst case because winter emissions are typically higher than its summer emissions.

5. All projects involving the purchase of a school site, or construction of a new elementary or secondary school, must be referred to the APCD for review and comment. (Pub. Resources Code Section 21151.8, Subd. (a)(2)).

6. The size of projects expected to exceed the GHG Threshold of significance for Industrial Land Uses is much smaller than a project that would exceed the Ozone Precursor Threshold as a result of a CalEEMod 2011.1.1 model error in the calculations for industrial projects. This error is scheduled to be corrected in the next CalEEMod model update.

7. Currently there is a CalEEMod model error for the retirement community category. If you are evaluating a project in this category, use the comparable Mobile Home Park category for screening.

## 1.5 PREPARING THE AIR QUALITY ANALYSIS SECTION FOR CEQA DOCUMENTS

As shown in Table 1-1, use of a simple screening analysis in a Negative Declaration, or emissions calculations and appropriate mitigation measures in a Mitigated Negative Declaration may be all that is necessary for many smaller urban projects. For larger projects requiring the preparation of an EIR, a more comprehensive air quality analysis is often needed. Such an analysis should address both construction phase and operational phase impacts of the project and include the following information:

- A description of existing air quality and emissions in the impact area, including the attainment status of SLO County relative to State and Federal air quality standards and any existing regulatory restrictions to development. The most recent Clean Air Plan should be consulted for applicable information.
- A thorough emissions analysis should be performed on all relevant emission sources, using emission factors from the EPA document AP-42 "Compilation of Air Pollutant Emission Factors", the latest approved version of California Emission Estimator Model (CalEEMod), EMFAC, OFF-ROAD or other approved emission calculator tools. The emissions analysis should include calculations for estimated emissions of all criteria air pollutants and toxic air contaminants released from the anticipated land use mix on a quarterly and yearly basis. Documentation of emission factors and all assumptions (i.e. anticipated land uses, average daily trip rate from trip generation studies, etc.) should be provided in an appendix to the EIR.
- The EIR should include a range of alternatives to the proposed project that could effectively minimize air quality impacts, if feasible. A thorough emissions analysis should be conducted for each of the proposed alternatives identified. The EIR author should contact the SLO County APCD if additional information and guidance is required. All calculations and assumptions used should be fully documented in an appendix to the EIR.

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- d. Assembly Bill 32, the California Global Warming Solution Act of 2006 and California Governor Schwarzenegger Executive Order S-3-05 (June 1, 2005), both require reductions of greenhouse gases in the State of California. Senate Bill 97 required the Office of Planning and Research to develop and the Natural Resources Agency to adopt Amendments to the CEQA Guidelines for greenhouse gas emissions. Based on these guidelines, greenhouse gas emissions should be evaluated in the EIR along with appropriate mitigation.
- e. If a project has the potential to emit toxic or hazardous air pollutants including diesel exhaust, and is located in close proximity to sensitive receptors, impacts may be considered significant due to increased cancer risk for the affected population, even at very low levels of emissions. Such projects may be required to prepare a risk assessment to determine the potential level of risk associated with their operations. The SLO County APCD should be consulted on any project with the potential to emit toxic or hazardous air pollutants.

Pursuant to the requirements of California Health and Safety Code Section 42301.6 (AB 3205) and Public Resources Code Section 21151.8, subd. (a)(2), any new school or proposed industrial or commercial project site located within 1000 feet of a school must be referred to the SLO County APCD for review. Further details on requirements for projects in this category are presented in Appendix A.
- f. The ARB has determined that emissions from sources such as roadways and distribution centers and to a lesser extent gas stations, certain dry cleaners, marine ports and airports as well as refineries can lead to unacceptably high health risk from diesel particulate matter and other toxic air contaminants. The APCD has established a CEQA health risk threshold of **89 in-a-million** for sources which are not otherwise directly regulated; this value represents the health risk caused by ambient concentration of toxics in San Luis Obispo County. A list of potential sources and recommended buffer distances can be found in Section 4.2 of the Handbook. If the proposed project is located in close proximity to any of the listed sources a health risk screening and/or assessment should be performed to assess risk to potential residence of the development.
- g. A consistency analysis with the Clean Air Plan is required for a Program Level environmental review, and may be necessary for a Project Level environmental review, depending on the project being considered. Details on conducting a consistency analysis with the Clean Air Plan can be found in Section 3.2.
- h. A cumulative impact analysis should be performed to evaluate the combined air quality impacts of this project and impacts from existing and proposed future development in the area. This should encompass all planned construction activities within one mile of the project.
- i. The data analyses requested above should address local and regional impacts with respect to maintaining applicable air quality standards at build out. Authors should consult the SLO County APCD to determine if a modeling analysis should be performed and included in the EIR.
- j. Temporary construction impacts, such as fugitive dust and combustion emissions from construction and grading activities, should be quantified and mitigation measures proposed. In addition, naturally occurring asbestos may exist at the site. A geological survey is required for the site if it is located in the APCD identified candidate naturally occurring asbestos area. If naturally occurring asbestos is found, the EIR should indicate that a plan will be developed to comply with the requirements listed in the Air Resources Board's Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations. If naturally occurring asbestos is not present at the site an exemption request will need to be filed with the APCD.
- k. Mitigation measures should be recommended, as appropriate, following the guidelines presented in Sections 2.3, 2.4 and 3.7 of this document.

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## 2 ASSESSING AND MITIGATING CONSTRUCTION IMPACTS

Use of heavy equipment and earth moving operations during project construction can generate fugitive dust and engine combustion emissions that may have substantial temporary impacts on local air quality and climate change. Fugitive dust of concern is particulate matter that is less than ten microns in size (PM<sub>10</sub>) and is not emitted from definable point sources such as industrial smokestacks. Sources include open fields, roadways, storage piles, earthwork, etc. Fugitive dust emissions results from land clearing, demolition, ground excavation, cut and fill operations and equipment traffic over temporary roads at the construction site.

Heavy-duty construction equipment is usually diesel powered. In July 1999, the ARB listed the particulate fraction of diesel exhaust as a toxic air contaminant, identifying both chronic and carcinogenic public health risks. Combustion emissions, such as nitrogen oxides (NO<sub>x</sub>), reactive organic gases (ROG), greenhouse gases (GHG) and diesel particulate matter (diesel PM), are most significant when using large, diesel-fueled scrapers, loaders, bulldozers, haul trucks, compressors, generators and other heavy equipment. Emissions from both fugitive dust and combustion sources can vary substantially from day-to-day depending on the level of activity, the specific type of operation, moisture content of soil, use of dust suppressants and the prevailing weather conditions.

Depending on the construction site location and proximity to sensitive receptors, a project that generates high levels of construction emissions, including diesel PM, may be required to perform a health risk assessment to evaluate short-term exposures to high pollutant concentrations and, if necessary, to implement mitigations measures. Mitigation requirements and the need for further analysis will be determined on a case-by-case basis, based upon emission levels and the potential risk for human exposure and effects. Diesel PM emissions may therefore be a factor in whether Best Available Control Technology (BACT) for construction equipment will be needed, even when emissions of criteria pollutants are below the Air District's significance thresholds.

The following information will assist the user in evaluating the fugitive dust and combustion emissions from a project and in proposing appropriate mitigation measures to reduce these impacts to a level of insignificance.

### 2.1 CONSTRUCTION SIGNIFICANCE CRITERIA

Construction emissions must be calculated for all development projects likely to exceed the construction emissions threshold, or if the project is subject to the special conditions defined in Section 2.1.1. Details on how to conduct emission calculations are discussed in Section 2.2 below. Once the emissions have been calculated, they should then be compared to the APCD construction phase significance thresholds.

#### Comparison to APCD Construction Significance Thresholds

The threshold criteria established by the SLO County APCD to determine the significance and appropriate mitigation level for a project's **short-term construction** emissions are presented in Table 2-1.

Most of the **short-term construction mitigation strategies** in Sections 2.3 and 2.4 focus on reducing fugitive dust emissions from work sites and haul vehicles, reducing combustion emissions from construction equipment, reducing asbestos (e.g., NOA) and scheduling construction activities to protect public health.

Table 2-1 provides general thresholds for determining the significance of impacts for total emissions expected from a project's construction activities. The discussion following the table provides a more detailed explanation of the thresholds. The Air District has discretion to require mitigation for projects that will not exceed the mitigation thresholds if those projects will result in special impacts, such as the release of diesel PM emissions or asbestos near sensitive receptors.



Table 2-1: Thresholds of Significance for Construction Operations

Pollutant	Threshold <sup>(1)</sup>		
	Daily	Quarterly Tier 1	Quarterly Tier 2
ROG + NO <sub>x</sub> (combined)	137 lbs	2.5 tons	6.3 tons
Diesel Particulate Matter (DPM)	7 lbs	0.13 tons	0.32 tons
Fugitive Particulate Matter (PM <sub>10</sub> ), Dust <sup>(2)</sup>		2.5 tons	
Greenhouse Gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFC, CFC, F6S)	Amortized and Combined with Operational Emissions (See Below)		

1. Daily and quarterly emission thresholds are based on the California Health & Safety Code and the CARB Carl Moyer Guidelines.
2. Any project with a grading area greater than 4.0 acres of worked area can exceed the 2.5 ton PM<sub>10</sub> quarterly threshold.

Mitigation of construction activities is required when the emission thresholds are equaled or exceeded by fugitive and/or combustion emissions:

#### ROG and NOx Emissions

- **Daily:** For construction projects expected to be completed in less than one quarter (90 days), exceedance of the 137 lb/day threshold requires Standard Mitigation Measures;
- **Quarterly – Tier 1:** For construction projects lasting more than one quarter, exceedance of the 2.5 ton/qtr threshold requires Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment. If implementation of the Standard Mitigation and BACT measures cannot bring the project below the threshold, off-site mitigation may be necessary; and,
- **Quarterly – Tier 2:** For construction projects lasting more than one quarter, exceedance of the 6.3 ton/qtr threshold requires Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan (CAMP), and off-site mitigation.

#### Diesel Particulate Matter (DPM) Emissions

- **Daily:** For construction projects expected to be completed in less than one quarter, exceedance of the 7 lb/day threshold requires Standard Mitigation Measures;
- **Quarterly - Tier 1:** For construction projects lasting more than one quarter, exceedance of the 0.13 tons/quarter threshold requires Standard Mitigation Measures, BACT for construction equipment; and,
- **Quarterly - Tier 2:** For construction projects lasting more than one quarter, exceedance of the 0.32 ton/qtr threshold requires Standard Mitigation Measures, BACT, implementation of a CAMP, and off-site mitigation.

#### Fugitive Particulate Matter (PM<sub>10</sub>), Dust Emissions

- **Quarterly:** Exceedance of the 2.5 ton/qtr threshold requires Fugitive PM<sub>10</sub> Mitigation Measures and may require the implementation of a CAMP.

#### Greenhouse Gas Emissions

- GHGs from construction projects must be quantified and amortized over the life of the project. The amortized construction emissions must be added to the annual average operational emissions and then compared to the operational thresholds in Section 3.5.1—Significance Thresholds for Project-Level Operational Emissions. To amortize the emissions over the life of the project, calculate the total greenhouse gas emissions for the construction activities, divide it by the project life (i.e., 50 years for residential projects and 25 years for commercial projects) then add that number to the annual operational phase GHG emissions.

#### 2.1.1 Special Conditions for Construction Activity

In addition to the construction air quality thresholds defined above, there are a number of special conditions, local regulations or state / federal rules that apply to construction activities. These conditions must be addressed in proposed construction activity.

#### Sensitive Receptors

The proximity of sensitive individuals (receptors) to a construction site constitutes a special condition and may require a more comprehensive evaluation of toxic diesel PM impacts and if deemed necessary by the SLO County APCD, more aggressive implementation of mitigation measures than described below in the diesel idling section. Areas were sensitive receptors are most likely to spend time include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling unit(s). Sensitive receptor locations for a project need to be identified during the CEQA review process and mitigation to minimize toxic diesel PM impacts need to be defined. The types of construction projects that typically require a more comprehensive evaluation include large-scale, long-term projects that occur within 1,000 feet of a sensitive receptor location(s).

#### Diesel Idling Restrictions for Construction Phases

The APCD recognizes the public health risk reductions that can be realized by idle limitations for both on and off-road equipment. The following idle restricting measures are required for the construction phase of projects:

#### a. Idling Restrictions Near Sensitive Receptors for Both On and off-Road Equipment

1. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
2. Diesel idling within 1,000 feet of sensitive receptors is not permitted;
3. Use of alternative fueled equipment is recommended whenever possible; and,
4. Signs that specify the no idling requirements must be posted and enforced at the construction site.

#### b. Idling Restrictions for On-road Vehicles

Section 2485 of Title 13, the California Code of Regulations limits diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles:

1. Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and,
2. Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 100 feet of a restricted area, except as noted in Subsection (d) of the regulation.

Signs must be posted in the designated queuing areas and job sites to remind drivers of the 5 minute idling limit. The specific requirements and exceptions in the regulation can be reviewed at the following web site: [www.arb.ca.gov/msprog/truck-idling/2485.pdf](http://www.arb.ca.gov/msprog/truck-idling/2485.pdf).

#### c. Idling Restrictions for off-Road Equipment

Off-road diesel equipment shall comply with the 5 minute idling restriction identified in Section 2449(d)(3) of the California Air Resources Board's In-Use off-Road Diesel regulation: [www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf](http://www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf).

Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5 minute idling limit.



### Naturally Occurring Asbestos

Naturally Occurring Asbestos (NOA) has been identified as a toxic air contaminant by the California Air Resources Board (ARB). Under the ARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, prior to any grading activities a geologic evaluation should be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the District. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the APCD. Technical Appendix 4.4 of this Handbook includes a map of zones throughout SLO County where NOA has been found and geological evaluation is required prior to any grading. More information on NOA can be found at <http://www.slocleanair.org/business/asbestos.asp>.

### Asbestos Material in Demolition

Demolition activities can have potential negative air quality impacts, including issues surrounding proper handling, demolition, and disposal of asbestos containing material (ACM). Asbestos containing materials could be encountered during demolition or remodeling of existing buildings. Asbestos can also be found in utility pipes/pipelines (transit pipes or insulation on pipes). If utility pipelines are scheduled for removal or relocation or a building(s) is proposed to be removed or renovated, various regulatory requirements may apply, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M - asbestos NESHAP). These requirements include but are not limited to: 1) notification to the APCD, 2) an asbestos survey conducted by a Certified Asbestos Inspector, and, 3) applicable removal and disposal requirements of identified ACM. More information on Asbestos can be found at <http://www.slocleanair.org/business/asbestos.php>.

### Developmental Burning

APCD regulations prohibit developmental burning of vegetative material within SLO County.

### Permits

Portable equipment and engines 50 horsepower (hp) or greater, used during construction activities will require California statewide portable equipment registration (issued by the ARB) or an Air District permit. The following list is provided as a guide to equipment and operations that may have permitting requirements, but should not be viewed as exclusive:

- Power screens, conveyors, diesel engines, and/or crushers;
- Portable generators and equipment with engines that are 50 hp or greater;
- Internal combustion engines;
- Unconfined abrasive blasting operations;
- Concrete batch plants;
- Rock and pavement crushing;
- Tub grinders; and,
- Trommel screens.

## 2.2 METHODS FOR CALCULATING CONSTRUCTION EMISSIONS

In calculating emissions for construction operations (NO<sub>x</sub>, ROG, DPM, GHG and fugitive PM), specific information about each activity and phase of the construction project is needed. Several methods are described below, each of which requires increasingly detailed information to produce more accurate results.

All assumptions, estimates, and calculation methods must be provided for SLO County APCD review. Calculation of combustion and fugitive dust emissions from construction activities should include peak daily, quarterly, annual, and total construction phase emissions of NO<sub>x</sub>, ROG, diesel PM, GHG and fugitive PM. Both the duration of the construction activities and schedule of phases are required in the evaluation. When using CalEEMod or a spreadsheet to model construction emissions, the **electronic**

project file (not a pdf) needs to be submitted to the SLO County APCD for review along with a summary table showing all emissions. The electronic file(s) need to be submitted to the APCD for review and shall include specific and summary emission reports, a detailed explanation of any deviations from CalEEMod defaults, and a detailed description of assumptions used for the emission calculations.

It may be necessary to calculate the project's construction impacts without knowing the exact fleet of construction equipment involved in the project. Table 2-2 contains screening construction emission rates based on the volume of soil moved and the area disturbed. This table should only be used when no other project information is available.

Table 2-2: Screening Emission Rates for Construction Operations

Pollutant	Grams/Cubic Yard of Material Moved	Lbs/Cubic Yard of Material Moved
Diesel PM	2.2	0.0049
Reactive Organic Gases (ROG)	9.2	0.0203
Oxides of Nitrogen (NO <sub>x</sub> )	42.4	0.0935
Fugitive Dust (PM <sub>10</sub> )	0.75 tons/acre/month of construction activity (assuming 22 days of operation per month)	

ROG, NO<sub>x</sub>, DPM Source: Bay Area Air Quality Management District CEQA Guidelines, December 1999, Table 7  
PM<sub>10</sub> Source: EPA-AP-42 (January 1995) and Index of Methodologies by Major Category Section 7.7 Building Construction Dust, California Air Resources Board, August 1997

The next level of specificity in defining project construction emissions involves the use of CalEEMod computer model. This model contains emission factors for a variety of construction equipment. It will automatically generate default values for the parameters listed below.

- Construction fleet;
- Construction phase duration (user must specify the start and end dates for each phase);
- Daily disturbed acreage;
- Fugitive dust emission rate;
- Asphalt paving (if applicable);
- Construction workers' trips;
- Equipment fleet mix for various phases of construction;
- Construction vendors' trips; and,
- Architectural coating emissions.

CalEEMod will not automatically calculate off-site hauling trips and associated emissions. If soil or demolition materials will need to be hauled off-site or materials will be imported, cubic yards of material and the number of truck trips will need to be entered into the model. The trip length associated with hauling also needs to be entered into the model along with a detailed explanation of the trip length. Specific truck emission factors for the hauling fleet should be included in the simulation. If the specific fleet is unknown at time of modeling, then a defensible worst case set of hauling fleet emission factors shall be used. This hauling component is an important step and is often overlooked resulting in under estimation of emissions.

If more detailed information regarding the construction phase of the project is known, the construction phases and default values can be modified in this step to more accurately reflect the anticipated emissions from the project.

A component of CalEEMod, the construction calculator, allows project specific equipment data to be used to calculate emissions. The use of the construction calculator is recommended for those projects that are in the final phase of planning when the actual fleet mix and construction schedule is defined to validate



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previous emission estimates and finalize mitigation measures. The following variables can be defined for each piece of construction equipment:

- Equipment type;
- Quality of equipment used;
- Horsepower rating;
- Load factor;
- Usage (hours/day);
- Engine model year;
- Engine deterioration (years and hours since last rebuild); and,
- Exhaust after-treatment devices such as VDEC (verified diesel emission control devices).

More detailed information about CalEEMod can be found at [www.calemod.com](http://www.calemod.com)

### 2.3 ROG, NO<sub>x</sub>, PM AND GHG COMBUSTION MITIGATION MEASURES

Construction mitigation measures are designed to reduce emissions (ROG, NO<sub>x</sub>, DPM, PM<sub>10</sub> and GHG) from heavy-duty construction equipment and may include emulsified fuels, catalyst and filtration technologies, engine replacement, new alternative fueled trucks, and implementation of Construction Activity Management Plans (CAMP). The mitigation measures for construction activity fall into three separate sections:

- Standard Mitigation Measures
- Best Available Control Technologies (BACT) and Construction Activity Management Plans
  - Construction Activity Management Plans (CAMP)
  - Retrofit Devices and Alternative Fuels
  - Repowers
- Fugitive Dust Mitigation Measures

#### Measure Applicability

Measures should be applied as necessary to reduce construction impacts below the significance thresholds listed in Table 2-1. Construction equipment mitigation measures and construction activity management practices have been shown to significantly reduce emissions while maintaining overall equipment performance and project scheduling needs. Project proponents shall determine daily and quarterly construction phase impacts and define mitigation that will be implemented if impacts are expected to exceed the SLO County APCD's construction phase thresholds of significance.

The following list of standard and specific mitigation measures shall be incorporated into project conditions depending on the level of impacts. Ozone precursors (ROG + NO<sub>x</sub>) are to be combined and compared to the SLO County APCD's construction phase significance thresholds. Applying the BACT for construction equipment or implementing a Construction Activity Management Plan is required when the Quarterly Tier 2 construction significance thresholds of 6.3 tons per quarter ROG + NO<sub>x</sub> or 0.32 tons per quarter diesel PM are exceeded.

#### 2.3.1 Standard Mitigation Measures for Construction Equipment

The standard mitigation measures for reducing nitrogen oxides (NO<sub>x</sub>), reactive organic gases (ROG), and diesel particulate matter (DPM) emissions from construction equipment are listed below:

- Maintain all construction equipment in proper tune according to manufacturer's specifications;
- Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
- Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State off-Road Regulation;

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- Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
- Construction or trucking companies with fleets that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NO<sub>x</sub> exempt area fleets) may be eligible by proving alternative compliance;
- All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling limit;
- Diesel idling within 1,000 feet of sensitive receptors is not permitted;
- Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
- Electrify equipment when feasible;
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and,
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

#### 2.3.2 Best Available Control Technology (BACT) for Construction Equipment

If the estimated ozone precursor emissions from the actual fleet for a given construction phase are expected to exceed the APCD threshold of significance after the standard mitigation measures are factored into the estimation, then BACT needs to be implemented to further reduce these impacts. The BACT measures can include:

- Further reducing emissions by expanding use of Tier 3 and Tier 4 off-road and 2010 on-road compliant engines;
- Repowering equipment with the cleanest engines available; and
- Installing California Verified Diesel Emission Control Strategies. These strategies are listed at: <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>

#### 2.3.3 Construction Activity Management Plan (CAMP) and Off-Site Mitigation

If the estimated construction emissions from the actual fleet are expected to exceed either of the APCD Quarterly Tier 2 thresholds of significance after the standard and BACT measures are factored into the estimation, then an APCD approved CAMP (see Technical Appendix 4.5 for CAMP Guidelines) and off-site mitigation need to be implemented in order to reduce potential air quality impacts to a level of insignificance.

#### CAMP

The CAMP should be submitted to the APCD for review and approval prior to the start of construction and should include, but not be limited to, the following elements:

- A Dust Control Management Plan that encompasses all, but is not limited to, dust control measures that were listed above in the "dust control measures" section;
- Tabulation of on and off-road construction equipment (age, horse-power and miles and/or hours of operation);
- Schedule construction truck trips during non-peak hours to reduce peak hour emissions;
- Limit the length of the construction work-day period, if necessary; and,
- Phase construction activities, if appropriate.

#### Off-Site Mitigation

It is important for the developer, lead agency, and SLO County APCD to work closely together whenever off-site mitigation is triggered. Off-site emission reductions can result from either stationary or mobile sources, but should relate to the on-site impacts from the project in order to provide proper "nexus" for the air quality mitigation. For example, NO<sub>x</sub> emissions from a large grading project could be reduced by re-powering heavy-duty diesel construction equipment, thereby reducing the amount of NO<sub>x</sub> generated from that equipment. An off-site mitigation strategy should be developed and agreed upon by all parties at least three months prior to the issuance of grading permits.



The current off-site mitigation rate is \$16,000 per ton<sup>1</sup> of ozone precursor emission (NO<sub>x</sub> + ROG) over the APCD threshold calculated over the length of the expected exceedance. The applicant may use these funds to implement APCD approved emission reduction projects near the project site or may pay that funding level plus an administration fee (2012 rate is 15%) to the APCD to administer emission reduction projects in close proximity to the project. The applicant shall provide this funding at least two (2) months prior to the start of construction to help facilitate emission offsets that are as real-time as possible.

Examples off-site mitigation strategies include, but are not limited to, the following:

- Fund a program to buy and scrap older heavy-duty diesel vehicles or equipment;
- Replace/repower transit buses;
- Replace/repower heavy-duty diesel school vehicles (i.e. bus, passenger or maintenance vehicles);
- Retrofit or repower heavy-duty construction equipment, or on-road vehicles;
- Repower or contribute to funding clean diesel locomotive main or auxiliary engines;
- Purchase VDECs for local school buses, transit buses or construction fleets;
- Install or contribute to funding alternative fueling infrastructure (i.e. fueling stations for CNG, LPG, conductive and inductive electric vehicle charging, etc.);
- Fund expansion of existing transit services; and,
- Replace/repower marine diesel engines.

## 2.4 FUGITIVE DUST MITIGATION MEASURES

Fugitive dust is particulate matter that is less than ten micros in size (PM<sub>10</sub>) and is not emitted from defined point sources such as industrial smokestacks. Sources include open fields, graded or excavated areas, roadways, storage piles, etc.

All fugitive dust sources shall be managed to ensure that dust emissions are adequately controlled to below the 20% opacity limit identified in the APCD Rule 401 *Visible Emissions* and to ensure that dust is not emitted offsite. Projects shall implement one of the following fugitive dust mitigation sets to both minimize fugitive dust emissions and associated complaints that could result in a violation of the APCD Rule 402 *Nuisance*. The correct fugitive dust mitigation set for a given project depends on the project scale or proximity to sensitive receptors. The project proponent may propose other measures of equal or better effectiveness as replacements by contacting the APCD Planning Division.

### Fugitive Dust Mitigation Measures: Short List

Projects with grading areas that are less than 4-acres and that are not within 1,000 feet of any sensitive receptor shall implement the following mitigation measures to minimize nuisance impacts and to significantly reduce fugitive dust emissions:

- a. Reduce the amount of the disturbed area where possible;
- b. Use water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;
- c. All dirt stock-pile areas should be sprayed daily as needed;
- d. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible, and building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
- e. All of these fugitive dust mitigation measures shall be shown on grading and building plans; and

<sup>1</sup> The value used to calculate off-site mitigation is based on the ARB approved Carl Moyer Grant Program and is updated on a periodic basis. The Carl Moyer cost effectiveness value as of 2009 is \$16,000 per ton.

- f. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress.

### Fugitive Dust Mitigation Measures: Expanded List

Projects with grading areas that are greater than 4-acres or are within 1,000 feet of any sensitive receptor shall implement the following mitigation measures to minimize nuisance impacts and to significantly reduce fugitive dust emissions:

- a. Reduce the amount of the disturbed area where possible;
- b. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;
- c. All dirt stock pile areas should be sprayed daily as needed;
- d. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities;
- e. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
- f. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
- g. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
- h. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
- i. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114;
- j. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site;
- k. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible;
- l. All of these fugitive dust mitigation measures shall be shown on grading and building plans; and
- m. The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20% opacity, and to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.



## 2.5 MITIGATION MONITORING

The APCD may conduct site visits to ensure that the construction phase air quality mitigation measures identified in the project's CEQA documents/conditions of approval were fully implemented. The lead agency may also review project mitigation for consistency with project conditions. Beyond verifying mitigation implementation, this monitoring can result in compliance requirements if mitigation measures are not sufficiently being implemented.

## 3 ASSESSING AND MITIGATING OPERATIONAL IMPACTS

Air pollutant emissions from urban development can result from a variety of sources, including motor vehicles, wood burning appliances, natural gas and electric energy use, combustion-powered utility equipment, paints and solvents, equipment or operations used by various commercial and industrial facilities, heavy-duty equipment and vehicles and various other sources. The air quality impacts that result from operational activities of a development project should be fully evaluated and quantified as part of the CEQA review process. The methods for evaluating and mitigating operational impacts from residential, commercial and industrial sources are discussed below.

### 3.1 OPERATIONAL SIGNIFICANCE CRITERIA

The APCD has established five separate categories of evaluation for determining the significance of project impacts. Full disclosure of the potential air pollutant and/or toxic air emissions from a project is needed for these evaluations, as required by CEQA:

- a. Consistency with the most recent Clean Air Plan for San Luis Obispo County;
- b. Consistency with a plan for the reduction of greenhouse gas emissions that has been adopted by the jurisdiction in which the project is located and that, at a minimum, complies with State CEQA Guidelines Section 15183.5.
- c. Comparison of predicted ambient criteria pollutant concentrations resulting from the project to state and federal health standards, when applicable;
- d. Comparison of calculated project emissions to SLO County APCD emission thresholds; and,
- e. The evaluation of special conditions which apply to certain projects.

### 3.2 CONSISTENCY WITH THE SLO COUNTY APCD'S CLEAN AIR PLAN AND SMART GROWTH PRINCIPLES

A consistency analysis with the Clean Air Plan is required for a Program Level environmental review, and may be necessary for a Project Level environmental review, depending on the project being considered. Program-Level environmental reviews include but are not limited to General Plan Updates and Amendments, Specific Plans, Regional Transportation Plans and Area Plans. Project-Level environmental reviews which may require consistency analysis with the Clean Air Plan and Smart/Strategic Growth Principles adopted by lead agencies include: subdivisions, large residential developments and large commercial/industrial developments. The project proponent should evaluate if the proposed project is consistent with the land use and transportation control measures and strategies outlined in the Clean Air Plan. If the project is consistent with these measures, the project is considered consistent with the Clean Air Plan.

### 3.3 CONSISTENCY WITH A PLAN FOR THE REDUCTION OF GREENHOUSE GAS EMISSIONS

The APCD encourages local governments to adopt a qualified GHG reduction plan that is consistent with AB 32 goals. If a project is consistent with an adopted qualified GHG reduction plan it can be presumed that the project will not have significant GHG emission impacts. This approach is consistent with the State CEQA Guidelines, Section 15183.5 (see text in box below).



§15183.5. Tiering and Streamlining the Analysis of Greenhouse Gas Emissions.

(a) Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions as provided in section 15152 (tiering), 15167 (staged EIRs) 15168 (program EIRs), 15175-15179.5 (Master EIRs), 15182 (EIRs Prepared for Specific Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).

(b) Plans for the Reduction of Greenhouse Gas Emissions. Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.

(1) Plan Elements. A plan for the reduction of greenhouse gas emissions should:

(A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;

(B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;

(C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;

(D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;

(E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;

(F) Be adopted in a public process following environmental review

(2) Use with Later Activities. A plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project.

Detailed information on preparing qualified GHG reduction plans is provided in the Technical Appendices 4.6 GHG Plan Level Guidance.

3.4 COMPARISON TO STANDARDS

State and federal ambient air quality standards are established to protect public health and welfare from the adverse impacts of air pollution; these standards are listed in Table 3-1. Industrial and large commercial projects are sometimes required to perform air quality dispersion modeling if the SLO County APCD determines that project emissions may have the potential to cause an exceedance of these standards. In such cases, models are used to calculate the potential ground-level pollutant concentrations resulting from the project. The predicted pollutant levels are then compared to the applicable state and federal standards. A project is considered to have a significant impact if its emissions are predicted to cause or contribute to a violation of any ambient air quality standard. In situations where the predicted standard violation resulted from the application of a "screening-level" model or calculation, it may be appropriate to perform a more refined modeling analysis to accurately estimate project impacts. If a refined analysis is not available or appropriate, then the impact must be mitigated to a level of insignificance or a finding of overriding considerations must be made by the permitting agency.

Table 3-1: Ambient Air Quality Standards (State and Federal)

Pollutant	Averaging Time	California Standard <sup>(1)</sup>	Federal Standard <sup>(2)</sup>
Ozone	1 Hour	0.09 ppm	
	8 Hour	0.070 ppm	0.075 ppm
Carbon Monoxide	8 Hour	9.0 ppm	9 ppm
	1 Hour	20 ppm	35 ppm
Nitrogen Dioxide	Annual Arithmetic Mean	0.030 ppm	0.053 ppm
	1 Hour	0.18 ppm	
Sulfur Dioxide	Annual Arithmetic Mean		0.030 ppm
	24 Hour	0.04 ppm	0.14 ppm
	3 Hour		0.5 ppm (secondary)
	1 Hour	0.25 ppm	
Respirable Particulate Matter	PM <sub>10</sub>	Annual Arithmetic Mean	20 µg/m <sup>3</sup>
		24 Hour	50 µg/m <sup>3</sup>
Fine Particulate Matter	PM <sub>2.5</sub>	Annual Arithmetic Mean	12 µg/m <sup>3</sup>
		24 Hour	35 µg/m <sup>3</sup>
Hydrogen Sulfide	1 Hour	0.03 ppm	
Vinyl Chloride	24 Hour	0.01 ppm	
Sulfates	24 Hour	25 µg/m <sup>3</sup>	
Lead	30 day average:	25 µg/m <sup>3</sup>	Rolling 3-month average: 0.15 µg/m <sup>3</sup>
			Calendar quarter: 1.5 µg/m <sup>3</sup>
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer – visibility of ten miles or more due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.	

1. California standards for ozone, carbon monoxide (except Lake Tahoe), nitrogen dioxide, sulfur dioxide (1-hour and 24-hour), PM<sub>2.5</sub>, PM<sub>10</sub> and visibility reducing particles are values that are not to be exceeded. All other state standards are not to be equalled or exceeded.



2. Federal standards are not to be exceeded more than once in any calendar year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For  $PM_{10}$ , the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above  $150 \mu g/m^3$  is equal to or less than one. For  $PM_{2.5}$ , the 24 hour standard is attained when the 98 percent of the daily concentration, average over three years, are equal to or less than the standard.

### 3.5 COMPARISON TO SLO COUNTY APCD OPERATIONAL EMISSION THRESHOLDS

Emissions which exceed the designated threshold levels are considered potentially significant and should be mitigated.

A Program Level environmental review, such as for a General Plan, Specific Plan or Area Plan however, does not require a quantitative air emissions analysis at the project scale. A qualitative analysis of the air quality impacts should be conducted instead, and should be generated for each of the proposed alternatives to be considered. The qualitative analysis of each alternative should be based upon criteria such as prevention of urban sprawl and reduced dependence on automobiles. A finding of significant impacts can be determined qualitatively by comparing consistency of the project with the Transportation and Land Use Planning Strategies outlined in the APCD's Clean Air Plan. Refer to Section 3.2 for more information.

Section 3.7 of this document provides guidance on the type of mitigation recommended for varying levels of impact and presents a sample list of appropriate mitigation measures for different types of projects.

#### 3.5.1 Significance Thresholds for Project-Level Operational Emissions

The threshold criteria established by the SLO County APCD to determine the significance and appropriate mitigation level for **long-term operational** emissions from a project are presented in Table 3-2.

Table 3-2: Thresholds of Significance for Operational Emissions Impacts

Pollutant	Threshold <sup>(1)</sup>	
	Daily	Annual
Ozone Precursors (ROG + NO <sub>x</sub> ) <sup>(2)</sup>	25 lbs/day	25 tons/year
Diesel Particulate Matter (DPM) <sup>(2)</sup>	1.25 lbs/day	
Fugitive Particulate Matter (PM <sub>10</sub> ), Dust	25 lbs/day	25 tons/year
CO	550 lbs/day	
Greenhouse Gases (CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFC, CFC, F6S)	Consistency with a Qualified Greenhouse Gas Reduction Plan OR 1,150 MT CO <sub>2</sub> e/year OR 4.9 CO <sub>2</sub> e/SP/year (residents + employees)	

1. Daily and annual emission thresholds are based on the California Health & Safety Code Division 26, Part 3, Chapter 10, Section 40918 and the CARB Carl Moyer Guidelines for DPM.  
2. CalEEmod – use winter operational emission data to compare to operational thresholds.

Most of the **long-term operational mitigation strategies** suggested in Section 3.7 focus on methods to reduce vehicle trips and travel distance, including site design standards which encourage pedestrian and bicycle-friendly, transit-oriented development. In addition, the recommendations include design strategies for residential and commercial buildings that address energy conservation and other concepts to reduce total project emissions. These recommendations are not all inclusive and are provided as examples among many possibilities.

#### 3.5.2 Ozone Precursor (ROG + NO<sub>x</sub>) Emissions

- If the project's ozone precursor emissions are below the APCD's **25 lbs/day** (combined ROG + NO<sub>x</sub> emissions) no ozone mitigation measures are necessary. The Lead Agency will prepare the appropriate, required environmental document(s).
- Projects which emit **25 lb/day** or more of ozone precursors (ROG + NO<sub>x</sub> combined) have the potential to cause significant air quality impacts, and should be submitted to the SLO County APCD for review. On-site mitigation measures, following the guidelines in Section 3.7 (*Operational Emission Mitigation*), are recommended to reduce air quality impacts to a level of insignificance.

If all feasible mitigation measures are incorporated into the project and emissions can be reduced to less than 25 lbs/day, then the Lead Agency will prepare the appropriate, required environmental document(s).

If all feasible mitigation measures are incorporated into the project and emissions are still greater than 25 lbs/day, then an ENVIRONMENTAL IMPACT REPORT should be prepared. Additional mitigation measures, including off-site mitigation, may be required depending on the level and scope of air quality impacts identified in the EIR.

- Projects which emit **25 tons/year** or more of ozone precursor (ROG + NO<sub>x</sub> combined), require the preparation of an ENVIRONMENTAL IMPACT REPORT. Depending upon the level and scope of air quality impacts identified in the EIR, mitigation measures, including off-site mitigation, may be required to reduce the overall air quality impacts of the project to a level of insignificance.

#### 3.5.3 Diesel Particulate Matter (DPM) Emissions

Diesel particulate matter (DPM) is seldom emitted from individual projects in quantities which lead to local or regional air quality attainment violations. DPM is, however, a toxic air contaminant and carcinogen, and exposure DPM may lead to increased cancer risk and respiratory problems. Certain industrial and commercial projects may emit substantial quantities of DPM through the use of stationary and mobile on-site diesel-powered equipment as well diesel trucks and other vehicles that serve the project.

Projects that emit more than **1.25 lbs/day** of DPM need to implement on-site Best Available Control Technology measures. If sensitive receptors are within 1,000 feet of the project site, a Health Risk Assessment (HRA) may also be required. Sections 3.5.1 and 3.6.4 of this Handbook provide more background on HRAs in conjunction with CEQA review. Guidance on the preparation of a HRA may be found in the CAPCOA report *HEALTH RISK ASSESSMENT FOR PROPOSED LAND USE PROJECTS* which can be downloaded from the CAPCOA website at [www.capcoa.org](http://www.capcoa.org).

#### 3.5.4 Fugitive Particulate Matter (Dust) Emissions

Projects which emit more than **25 lbs/day** or **25 tons/year** of fugitive particulate matter need to implement permanent dust control measures to mitigate the emissions below these thresholds or provide suitable off-site mitigation approved by the APCD. Operational fugitive dust emissions from a proposed project are calculated using the CALEEMOD model discussed in Section 3.6.1. Typical sources of operational emissions included the following:

- Paved roadways:** Vehicular traffic on paved roads that are used to access large residential, commercial, or industrial projects can generate significant dust emissions.



- Off and/or on-site unpaved roads or surfaces: Even at low traffic volume, vehicular traffic on unpaved roads or surfaces that are used to accesses residential, commercial, or industrial operations or that accesses special events, etc. can generate significant dust emissions
- Industrial and/or commercial operations: Certain industrial operations can generate significant dust emissions associated with vehicular access, commercial or industrial activities.

Any of the above referenced land uses or activities can result in dust emissions that exceed the APCD significance thresholds, cause violations of an air quality standard, or create a nuisance impact in violation of APCD Rule 402 *Nuisance*. In all cases where such impacts are predicted, appropriate fugitive dust mitigation measures shall be implemented.

### 3.5.5 Carbon Monoxide (CO) Emissions

Carbon monoxide is a colorless, odorless, tasteless gas emitted during combustion of carbon-based fuels. While few land use projects result in high emissions of CO, this pollutant is of particular concern when emitted into partially or completely enclosed spaces such as parking structures and garages. Projects which emit more than 550 lbs/day of carbon monoxide (CO) and occur in a confined or semi-confined space (e.g., parking garage or enclosed indoor stadium) must be modeled to determine their significance. In confined or semi-confined spaces where vehicle activity occurs, CO modeling is required. If modeling shows the potential to violate the State CO air quality standard, mitigation or project redesign is required to reduce CO concentrations to a level below the health-based standard.

### 3.5.6 Greenhouse Gas Emissions

GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC, CFC, F6S) from all projects subject to CEQA must be quantified and mitigated to the extent feasible. The thresholds of significance for a project's amortized construction plus operational-related GHG emissions are:

- For land use development projects, the threshold is compliance with a qualified GHG Reduction Strategy (see Section 3.3); OR annual emissions less than 1,150 metric tons per year (MT/yr) of CO<sub>2</sub>e; OR 4.9 MT CO<sub>2</sub>e/service population (SP)/yr (residents + employees<sup>2</sup>). Land use development projects include residential, commercial and public land uses and facilities. Lead agencies may use any of the three options above to determine the significance of a project's GHG emission impact to a level of certainty.
- For stationary-source projects, the threshold is 10,000 metric tons per year (MT/yr) of CO<sub>2</sub>e. Stationary-source projects include land uses that would accommodate processes and equipment that emit GHG emissions and would require an APCD permit to operate.

The APCD's GHG threshold is defined in terms of carbon dioxide equivalent (CO<sub>2</sub>e), a metric that accounts for the emissions from various greenhouse gases based on their global warming potential. If annual emissions of GHGs exceed these threshold levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact to global climate change. More detailed information on the greenhouse gas thresholds can be found in the APCD's *Greenhouse Gas Thresholds and Supporting Evidence* document (March 28, 2012) that is available at [www.slocleanair.org](http://www.slocleanair.org).

## 3.6 SPECIAL CONDITIONS

Projects may require additional assessments as described in the following section.

<sup>2</sup> For projects where the employment is unknown, please refer to Appendix 4.7 "Employees per 1000sf" to estimate the number of employees associated with any project.

### 3.6.1 Toxic Air Contaminants

#### Health Risk Assessments

If a project has the potential to emit toxic or hazardous air pollutants, or is located in close proximity to sensitive receptors, impacts may be considered significant due to increased cancer risk for the affected population, even at a very low level of emissions. Such projects may be required to prepare a risk assessment to determine the potential level of risk associated with their operations. The SLO County APCD should be consulted on any project with the potential to emit toxic or hazardous air pollutants. Pursuant to the requirements of California Health and Safety Code Section 42301.6 (AB 3205) and Public Resources Code Section 21151.8, subd. (a)(2), any new school, or proposed industrial or commercial project site located within 1000 feet of a school must be referred to the SLO County APCD for review. Further details on requirements for projects in this category are presented in Section 4.1.

In April of 2005, the California ARB issued the *AIR QUALITY AND LAND USE HANDBOOK: A COMMUNITY HEALTH PERSPECTIVE* (Land Use Handbook). The ARB has determined that emissions from sources such as roadways and distribution centers and, to a lesser extent gas stations, certain dry cleaners, marine ports and airports as well as refineries can lead to unacceptably high health risk from diesel particulate matter and other toxic air contaminants (TACs). Groups such as children and the elderly, as well as long-term residential occupants, are particularly at risk from toxic exposure.

In July 2009, the California Air Pollution Control officers Associations (CAPCOA) adopted a guidance document *HEALTH RISK ASSESSMENTS FOR PROPOSED LAND USE PROJECTS* to provide uniform direction on how to assess the health risk impacts from and to proposed land use projects. The CAPCOA guidance document focuses on how to identify and quantify the potential acute, chronic, and cancer impacts of sources under CEQA review. It also outlines the recommended procedures to identify when a project should undergo further risk evaluation, how to conduct the health risk assessment (HRA), how to engage the public, what to do with the results from the HRA, and what mitigation measures may be appropriate for various land use projects.

As defined in the CAPCOA guidance document there are basically two types of land use projects that have the potential to cause long-term public health risk impacts:

- Type A Projects: new proposed land use projects that generate toxic air contaminants (such as gasoline stations, distribution facilities or asphalt batch plants) that impact sensitive receptors. Air districts across California are uniform in their recommendation to use the significance thresholds that have been established under each district's "Hot Spots" and permitting programs. The APCD has defined the excess cancer risk significance threshold at **10 in a million** for Type A projects in SLO County; and,
- Type B Projects: new land use projects that will place sensitive receptors (e.g., residential units) in close proximity to existing toxics sources (e.g., freeway). The APCD has established a CEQA health risk threshold of **89 in-a-million** for the analysis of projects proposed in close proximity to toxic sources. This value represents the population weighted average health risk caused by ambient background concentrations of toxic air contaminants in San Luis Obispo County. The APCD recommends Health Risk screening and, if necessary, Health Risk Assessment (HRA) for any residential or sensitive receptor development proposed in proximity to toxic sources.

If a project is located near a sensitive receptor (e.g., school, hospital, dwelling unit(s), etc.), it may be considered significant even if other criteria do not apply. The health effects of a project's emissions may be more pronounced if they impact a considerable number of children, elderly, or people with compromised respiratory or cardiac conditions.



#### **Diesel PM**

In October of 2000, the ARB issued and adopted the Diesel Risk Reduction Plan to reduce particulate matter emissions from diesel-fueled engines and vehicles. This plan identified that 70% of the airborne toxic risk in California is from diesel particulate matter.

The plan called for a 90% reduction in this Toxic Air Contaminant by 2020 through:

- a. Adoption of new regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles;
- b. Requiring feasible and cost-effective diesel PM reducing retrofit requirements for the existing fleets and stationary engines; and,
- c. Reducing the sulfur content in diesel-fuel sold in California to 15 parts per million.

At a minimum, fleets must meet the diesel emission reduction requirements that have been adopted in the State's Diesel Risk Reduction Plan. These fleets may also be required to provide additional mitigation depending on the project's emissions and location.

#### **Asbestos / Naturally Occurring Asbestos**

Naturally occurring asbestos (NOA) has been identified by the state Air Resources Board as a toxic air contaminant. Serpentine and ultramafic rocks are very common throughout California and may contain naturally occurring asbestos. The SLO County APCD has identified areas throughout the County where NOA may be present (see Technical Appendix 4.4). Under the ARB's Air Toxic Control Measure (ATCM) related to quarrying, and surface mining operations, a geologic evaluation is required to determine if NOA is present prior to any grading activities at a project site located in the candidate area.

If NOA is found at the site the applicant must comply with all requirements outlined in the Asbestos ATCM for Quarrying, and Surface Mining Operations. These requirements may include but are not limited to:

- a. Development of an Asbestos Dust Mitigation Plan which must be approved by the APCD before operations begin, and,
- b. Development and approval of an Asbestos Health and Safety Program (required for some projects).

If NOA is not present, an exemption request must be filed with the Air District. More information on NOA can be found at <http://www.slocleanair.org/business/asbestos.asp>.

#### **3.6.2 Agricultural Operations**

##### **Wineries, Tasting Rooms and Special Events**

Reactive organic gas emissions (ethanol) generated during wine fermentation and storage, as well as emissions from equipment used in wine production, can cause significant air quality impacts. Thus, the emissions from new or modified winery operations and activities should be evaluated and appropriate mitigation specified when necessary. New or expanding wineries with storage capacity of 26,000 gallons per year or more may also require a Permit to Operate from the APCD.

Wine production facilities can also generate nuisance odors during various steps of the process. Proven methods for handling wastewater discharge and grape skin waste need to be incorporated into the winery practices to minimize the occurrence of anaerobic processes that mix with ambient air which can result in offsite nuisance odor transport. Odor complaints could result in a violation of the SLO County APCD Rule 402 *Nuisance*.

#### **Agricultural Burns**

Agricultural operations must obtain an APCD Agricultural Burn Permit to burn dry agricultural vegetation on Permissive Burn Days. The ARB provides educational handbooks on agricultural burning (English and Spanish) to growers which are available at the following websites:

- [www.arb.ca.gov/cap/handbooks/agburningsmall.pdf](http://www.arb.ca.gov/cap/handbooks/agburningsmall.pdf)
- [www.arb.ca.gov/cap/handbooks/agburningspanishsmall.pdf](http://www.arb.ca.gov/cap/handbooks/agburningspanishsmall.pdf).

#### **3.6.3 Fugitive Dust**

Fugitive dust can come from many sources, such as unpaved roads, equestrian facilities and confined animal feeding operations. Dust emissions from the operational phase of a project should be managed to ensure they do not impact offsite areas and do not exceed the 20% opacity limit identified in SLO County APCD Rule 401 *Visible Emissions*. A list of approved dust control suppressants is available in Technical Appendix 4.3. The approved suppressants must be reapplied at a frequency that ensures dust emissions will not exceed the limits stated above. Any chemical or organic material used for stabilizing solids shall not violate the California State Water Quality Control Board standards for use as a soil stabilizer. Any dust suppressant must not be prohibited for use by the US Environmental Protection Agency, the California Air Resources Board, or other applicable law, rule, or regulation.

#### **Equestrian Facilities**

Another potential source of fugitive dust can come from equestrian facilities, which may be a nuisance to local residents. To minimize nuisance impacts and to reduce fugitive dust emissions from equestrian facilities the following mitigation measures should be incorporated into the project:

- Reduce the amount of the disturbed area where possible;
- Use water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water shall be used whenever possible;
- Permanent dust control measures shall be implemented as soon as possible following completion of any soil disturbing activities;
- All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the Air District;
- All access roads and parking areas associated with the facility shall be paved to reduce fugitive dust; and,
- A person or persons shall be designated to monitor for dust and implement additional control measures as necessary to prevent transport of dust offsite. The monitor's duties shall include holidays and weekend. The name and telephone number of such persons shall be provided to the Air District prior to operation of the arena.

#### **Dirt Roads and Unpaved Areas**

When a project is accessed by unpaved roads and or has unpaved driveways or parking areas, a  $PM_{10}$  emission estimate needs to be conducted using the CALEEMOD model. When the model's emission estimate demonstrates an exceedance of the 25 lbs of  $PM_{10}$ /day or 25 tons of  $PM_{10}$ /year APCD thresholds, the following mitigation is required:

For the unpaved road leading to the project location, implement one of the following:

- a. For the life of the project, pave and maintain the driveway; or,
- b. For the life of the project, maintain the private unpaved driveway with a dust suppressant (See Technical Appendix 4.3 for a list of APCD-approved suppressants) such that fugitive dust emissions do not impact off-site areas and do not exceed the APCD 20% opacity limit.

To improve the dust suppressant's long-term efficacy, the applicant shall also implement and maintain design standards to ensure vehicles that use the on-site unpaved road are physically limited (e.g., speed bumps) to a posted speed limit of 15 mph or less.



If the project involves a city or county owned and maintained road, the applicant shall work with the Public Works Department to ensure road standards are followed. The applicant may propose other measures of equal effectiveness as replacements by contacting the APCD Planning Division.

#### Special Event Mitigation

When a special event is accessed by unpaved roads and/or has unpaved driveways or parking areas, a PM<sub>10</sub> emission estimate must be conducted using the CAAEMOD model. If the model shows an exceedance of the 25 lbs/day of PM<sub>10</sub> significance threshold, the following mitigation is required on the day(s) of the special event:

- a. Designated parking locations shall be:
  1. Paved when possible;
  2. Sited in grass or low cut dense vegetative areas; or,
  3. Treated with a dust suppressant such that fugitive dust emissions do not impact offsite areas and do not exceed the APCD 20% opacity limit (see Technical Appendix 4.3).
- b. Any unpaved roads/driveways that will be used for the special event shall be maintained with an APCD-approved dust suppressant such that fugitive dust emissions do not impact offsite areas and do not exceed the APCD 20% opacity limit.

The applicant may propose alternative measures of equal effectiveness by contacting the APCD Planning Division.

#### 3.6.4 Air Quality Nuisance Impacts

If a project has the potential to cause an odor or other nuisance problem which could impact a considerable number of people, then it may be considered significant. A project may emit a pollutant in concentrations that would not otherwise be significant except as a nuisance. Odor impacts on residential areas and other sensitive receptors warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, work sites and commercial areas.

When making a determination of odor significance, determine whether the project would result in an odor source located next to potential receptors within the distances indicated in Table 3-3. The Lead Agency should evaluate facilities not included in Table 3-3 or projects separated by greater distances than indicated in Table 3-3 if warranted by local conditions or special circumstances. The list is provided as a guide and, as such, is not all-inclusive.

If a project is proposed within the screening level distances in Table 3-3, the APCD Enforcement Division should be contacted for information regarding potential odor problems. For projects that involve new receptors located near an existing odor source(s), an information request should be submitted to the SLO County APCD to review the inventory of odor complaints for the nearest odor emitting facility(ies) during the previous three years. For projects involving new receptors to be located near an existing odor source where there is currently no nearby development, and for new odor sources locating near existing receptors, the information request and analysis should be based on a review of odor complaints for similar facilities.

Table 3-3: Project Screening Distances for Nuisance Sources

PROJECT SCREENING DISTANCES	
Type of Operation	Project Screening Distance
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Coffee Roaster	1 mile
Composting Facility	1 mile
Fiberglass Manufacturing	1 mile
Food Processing Facility	1 mile
Oil Field	1 mile
Painting/Coating Operations (e.g. auto body shops)	1 mile
Petroleum Refinery	2 miles
Rendering Plant	1 mile
Sanitary Landfill	1 mile
Transfer Station	1 mile
Wastewater Treatment Plant	1 mile

Note: This list is provided as a guide and is not all-inclusive.

For a project that will be located near an existing odor source the project should be identified as having a significant odor impact, if it will be as close or closer to the any location that has experienced: 1) more than one confirmed complaint per year averaged over a three year period, or 2) three unconfirmed complaints per year averaged over a three year period.

If a proposed project is determined to result in potential odor problems, mitigation measures should be identified. For some projects, add-on controls or process changes, such as carbon absorption, incineration or an engineering modification to stacks/vents, can reduce odorous emissions. In many cases, however, the most effective mitigation strategy is the provision of a sufficient distance, or buffer zone, between the source and the receptor(s).

The SLO County APCD should be consulted whenever any of these additional special conditions may be applicable for a proposed project.

#### 3.7 METHODS FOR CALCULATING PROJECT OPERATIONAL EMISSIONS

Operational phase air pollutant emissions from urban development can result from a variety of sources, including motor vehicles, wood burning appliances, natural gas and electric energy use, combustion-powered utility equipment, paints and solvents, equipment or operations used by various commercial and industrial facilities, construction and demolition equipment and operations, and various other sources. The amount and type of emissions produced, and their potential to cause significant impacts, depends on the type and level of development proposed. The following sections describe the recommended methods generally used to calculate emissions from motor vehicles, congested intersections and roadways, non-vehicular sources at residential and commercial facilities, and industrial point and area sources. Calculation and mitigation of construction emissions are described separately in Chapter 2.

Submittals describing project assessments must include spreadsheets with project calculations and a description of calculations so that the APCD can verify project quantification. **Calculations must be based on San Luis Obispo County default conditions unless the default settings are not representative of the project** (see below). The project report must detail assumptions made and provide sample calculations. Prior to finalizing the calculations, contact the APCD Planning and Outreach Division to review assumptions that do not have solid evidential support.

##### 3.7.1 Determining Motor Vehicle Emissions

Motor vehicles are a primary source of long-term emissions from many residential, commercial, institutional, and industrial land uses. These land uses often do not emit significant amounts of air



pollutants directly, but cause or attract motor vehicle trips that do produce emissions. Such land uses are referred to as indirect sources.

Motor vehicle emissions associated with indirect sources should be calculated for projects which exceed or are within 10 % of the screening criteria listed in Table 1-1. Calculations should be performed using the latest version of CALEEMOD; this software incorporates the most recent vehicle emission factors from the EMFAC model (i.e., Emission FACTors) provided by the California Air Resources Board (ARB), and average trip generation factors published by the Institute of Transportation Engineers (ITE). The latest version of this program should always be used and can be downloaded free of charge at [www.caleemod.com](http://www.caleemod.com).

CalEEMod is a planning tool for estimating vehicle miles travel, fuel use and resulting emissions related to land use projects throughout California. The model calculates emissions of ROG, NO<sub>x</sub>, CO, and CO<sub>2</sub> and other GHGs as well as dust and exhaust PM<sub>10</sub> from vehicle use associated with new or modified development such as shopping centers, housing, commercial services, industrial land uses, etc.

CALEEMOD includes many default values for parameters such as

- Seasonal Average Temperature;
- Humidity;
- Wood and gas stoves in a residential development and their usage;
- Fleet mix;
- Average vehicle speed and age;
- Average urban, rural, commute, shopping, and other trip type distances; and,
- Average trip rates for each land use.

When modeling project emissions, the user must specify that the project is located in SLO County so that the appropriate default values are used for the modeling. Motor vehicle-related defaults should not be changed without justification for doing so; solid documentation of rationale for any changes made need to be provided to APCD as part of the air quality report. Defaults that need to be evaluated and modified based on the project location and specifications include:

- **Trip Length:** For projects that are located in rural areas of the county where commercial services are not readily available, the trip length default values in the Operational – Mobile Vehicle Trips CalEEMod tab need be set at 13 miles for all trip distances; this happens automatically if the “Rural” Land Use Setting.
- **Fleet Mix:** Projects that attract a mix of vehicles which clearly differs from the default vehicle fleet in SLO County should make the appropriate changes to the FleetMix fraction section on the Annual, Summer, and Winter subtabs under the CalEEMod Operational – Mobile Vehicle Emissions Tab. Some examples include large commercial retail with heavy on-road truck use and heavy industry.
- **Dirt and Roads:** Projects which include on- and off-site dirt access roads should modify the default Road Dust component to accurately assess the project’s PM<sub>10</sub> emissions. For general traffic, SLO County APCD recommends using the ARB’s unpaved road emission factor of 2 pounds of particulate matter emissions per one mile of unpaved vehicle mile traveled ([www.arb.ca.gov/ei/areasrc/fullpdf/FULL7-10.pdf](http://www.arb.ca.gov/ei/areasrc/fullpdf/FULL7-10.pdf)). This value is not appropriate for heavy duty diesel truck travel on unpaved roads.

The following are the APCD recommended values to use in CalEEMod’s Operational – Mobile Road Dust tab to yield PM<sub>10</sub> emissions using variable values that emulate the ARB’s above identified unpaved road emission factor:

- Under the “Paved Road Dust” section:

- Change the “% Pave” value to define your project’s paved road component by entering the results of the following calculation:
  - In general, the total distance of paved road driving (miles) is determined with:
    - $[1 - (A/B)] \times 100\%$
    - Where A = The unpaved road distance to access the project
    - Where B is typically = to the county average one way trip distance of 13 miles)
- Under the “Unpaved Road Dust” section:
  - Use a value of 9.3 for “Material Silt Content (%)”
  - Use a value of 0.1 for “Material Moisture Content (%)”
  - Use a value of 32.4 for “Mean Vehicle Speed (mph)”

If the project has a total distance of unpaved road greater than 13 miles, the actual distance of the unpaved road should be compared to the total one-way trip length to determine the percentages of paved and unpaved road distances. In addition, the Trip Length in the Operational – Mobile Vehicle Trips tab needs to be updated by entering the total length of a one way trip for the project.

CalEEMod reports submitted as part of a CEQA evaluation need to include the following:

- a. A winter, summer, and annual report;
- b. The model files associated with the reports;
- c. The SLO County APCD CEQA operational criteria pollutant thresholds should be compared to the Overall Operational winter total emissions (Note: ROG and NO<sub>x</sub> emission values are combined and compared to the 25 lb/day threshold);
- d. The SLO County APCD CEQA operational GHG numerical threshold should be compared to the Overall Operational annual total CO<sub>2</sub>e emissions;
- e. When summarizing modeling results in a CEQA document summary table always list the pollutants in the order they are listed in the model for ease of review; and,
- f. Changes to any SLO County defaults need to be identified and a solid defensible explanation for those changes need to be provided to the APCD.

### 3.7.2 Non-Vehicular Emissions from Residential and Commercial Facilities

Non-vehicular emission sources associated with most residential and commercial development include energy use to power lights, appliances, heating and cooling equipment, evaporative emissions from paints and solvents, fuel combustion by lawnmowers, leaf blowers and other small utility equipment, residential wood burning, household products, and other small sources. Collectively, these are referred to as “area sources” and are important from a cumulative standpoint even though they may appear insignificant when viewed individually. The CALEEMOD model provides emissions estimations from area sources based on land use types; however it underestimates all emissions associated with electricity use and water consumption.

One CALEEMOD default area source value which has a significant impact on project emissions and may need to be changed is hearth fuel combustion – it is enabled by default and should be disabled or modified if the project excludes wood-burning devices.



### 3.7.3 Industrial Emission Sources

From an emissions standpoint, industrial facilities and operations are typically categorized as being “point” or “area” sources. Point sources are stationary and generally refer to a site that has one or more emission sources at a facility with an identified location (e.g., power plant, refinery, etc.). Area sources can be:

- Stationary or mobile and typically include categories of stationary facilities whose emissions are small individually, but may be significant as a group (e.g., gas stations, dry cleaners, etc.);
- Sources whose emissions emanate from a broad area (e.g., fugitive dust from storage piles and dirt roads, landfills, etc.); and,
- Mobile equipment used in industrial operations (e.g., drill rigs, loaders, haul-trucks, etc.).

Emissions from new, modified or relocated point sources are directly regulated through the APCD Rule 204 *New Source Review* requirements and facility permitting program. A general list of the type of sources affected by these requirements is provided in Section 4.1. New development that includes these source types should be forwarded to the SLO County APCD for a determination of APCD permitting and control requirements. Through the CEQA analysis, all air quality impacts are evaluated including the stationary point, area and mobile sources. While a specific piece of equipment or process may be covered by an APCD permit it is not excluded from the CEQA evaluation process.

### 3.7.4 Health Risk Assessment

Health risk is a common metric used by air quality and health scientists to describe the potential for an individual or group of people (population) in a given area to suffer serious health effects from long-term or short-term exposure to one or more toxic air contaminants (TACs). In July 2009, the California Air Pollution Control officers Association (CAPCOA) released a guidance document titled HEALTH RISK ASSESSMENT FOR LAND USE PROJECTS, which is available for download at [www.capcoa.org](http://www.capcoa.org). Attachment 1 of the CAPCOA document provides specific guidance on how to model emissions of toxic substances from various source types to determine the potential cancer risk as well as acute and chronic non-cancer health risks for nearby receptors.

A screening-level and/or refined health risk assessment (HRA) may be required for projects which may result in the exposure of sensitive receptors (e.g., school, hospital, dwelling unit(s), etc.) to TACs. Projects which involve the siting of **either** the TAC source itself **or** sensitive receptors in close proximity to a TAC should be evaluated for risk exposure. Various tools are available to perform a screening analysis from stationary sources impacting receptors (Type A projects).

For projects being impacted by existing sources (Type B projects), a distance table screening tool is available in the ARB Land Use Handbook which provides recommended buffer distances associated with types of most common toxic air contaminant sources (see Technical Appendix 4.2).

If a screening risk assessment shows that the potential risk exceeds the APCD’s thresholds, then a more refined analysis may be required. The assessment should include the evaluation of both mobile and stationary sources. Risk assessments are normally prepared in a tiered manner, where progressively more input data is collected to refine the results. The refined analysis for the project should provide more accurate information for decision makers.

### 3.7.5 Greenhouse Gas Emissions

To quantify GHG emissions from a proposed development, the APCD recommends using CalEEMod for mobile sources and a partial characterization of area source impacts. In certain cases (e.g., drive-through restaurants), the use of alternative methodologies to quantify GHG impacts will be required. Please consult APCD Planning Division staff for current calculation methods.

### 3.8 OPERATIONAL EMISSION MITIGATION

Emissions from motor vehicles that travel to and from residential, commercial, and industrial land uses can generally be mitigated by reducing vehicle activity through site design (e.g., transit oriented design, infill, mixed use, etc.), implementing transportation demand management measures, using clean fuels and vehicles, and/or off-site mitigation. In addition, area source operational emissions from energy consumption from land uses can be mitigated by improving energy efficiencies, conservation measures and use of alternative energy sources. The mitigation measures in this section are intended to reduce emissions of ROG, NO<sub>x</sub>, Diesel PM (DPM), Dust PM, and GHGs. The following three categories best capture the types of mitigation measures that can reduce air quality impacts from project operations:

- **Site Design Mitigation Measures:** Site design and project layout can be effective methods of mitigating air quality impacts of development. Land use development that incorporates urban infill, higher density, mixed use and walkable, bikeable, and transit oriented designs can significantly reduce vehicle activity and associated air quality impacts. As early as possible in the scoping phase of a project, the SLO County APCD recommends that developers and planners refer to the document CREATING TRANSPORTATION CHOICES THROUGH DEVELOPMENT DESIGN AND ZONING and Appendix E of the APCD Clean Air Plan LAND USE AND CIRCULATION MANAGEMENT STRATEGIES. APCD Planning Division staff is available to discuss project layout and design factors which can influence indirect source emissions and reduce mobile source emissions.
- **Energy Efficiency Mitigation Measures:** Residential and commercial energy use for lighting, heating and cooling is a significant source of direct and indirect air pollution nationwide. Reducing site and building energy demand will reduce emissions at the power plant source and natural gas combustion in homes and commercial buildings. The energy efficiency of both commercial and residential buildings can be improved by orienting buildings to maximize natural heating and cooling.
- **Transportation Mitigation Measures:** Vehicle emissions are often the largest continuing source of emissions from the operational phase of a development. Reducing the demand for single-occupancy vehicle trips is a simple, cost-effective means of reducing vehicle emissions. In addition, using cleaner fueled vehicles or retrofitting equipment with emission control devices can reduce the overall emissions without impacting operations. In today’s marketplace, clean fuel and vehicle technologies exist for both passenger and heavy-duty applications.

#### 3.8.1 Guidelines for Applying ROG, NO<sub>x</sub> and PM<sub>10</sub> Mitigation Measures

In general, projects which do not exceed the 25 lb/day ROG+NO<sub>x</sub> threshold do not require mitigation. For projects which exceed this threshold, the SLO County APCD has developed a list of mitigation strategies for residential, commercial and industrial projects. Alternate mitigation measures may be suggested by the project proponent if the APCD-suggested measures are not feasible. Project mitigation recommendations should follow the guidelines listed below and summarized in Table 3-4:

- Projects with the potential to generate 25 - 29 lbs/day of combined ROG + NO<sub>x</sub> or PM<sub>10</sub> emissions should select and implement at least **8** mitigation measures from the list;
- Projects generating 30 - 34 lbs./day of combined ROG + NO<sub>x</sub> or PM<sub>10</sub> emissions should select and implement at least **14** mitigation measures list;
- Projects generating 35 - 50 lbs./day of combined ROG + NO<sub>x</sub> or PM<sub>10</sub> emissions should implement at least **18** measures from the list;



- d. Projects generating 50 lbs/day or more of combined ROG + NO<sub>x</sub> or PM<sub>10</sub> emissions should select and implement **all feasible** measures from the list. Further mitigation measures may also be necessary, including off-site measures, depending on the nature and size of the project and the effectiveness of the mitigation measures proposed; and,
- e. Projects generating 25 tons per year or more of combined ROG + NO<sub>x</sub> or PM<sub>10</sub> emissions will need to implement **all feasible** measures from the list as well as **off-site** mitigation measures, depending on the nature and size of the project and the effectiveness of the onsite mitigation measures proposed.

Table 3-4: Mitigation Threshold Guide

Combined ROG+NO <sub>x</sub> or PM <sub>10</sub> Emissions (lbs/day)	Mitigation Measures Recommended	
	Residential, Commercial or Industrial	Off-Site Mitigation
< 25	None	None
25 – 29	8	*
30 – 34	14	*
35 – 50	18	*
≥ 50	All Feasible	*
≥ 25 ton/yr	All Feasible	Yes

\* Will be dependent on the effectiveness of the mitigation measures, location of project and high vehicle dependent development. Examples of projects potentially subject to off-site mitigation include: rural subdivisions, drive-through applications, commercial development located far from urban core.

### 3.8.2 Standard Mitigation Measures

The recommended standard air quality mitigation measures have been separated according to land use (i.e., residential, commercial and industrial), measure type (i.e., site design, energy efficiency and transportation) and pollutant reduced (i.e., ozone, particulate, diesel PM, and GHGs). Any project generating 25 lbs/day or more of ROG + NO<sub>x</sub> or PM<sub>10</sub> should select the applicable number of mitigation measure as outlined above from Table 3-5 to reduce the air quality impacts from the project below the significance thresholds. This table also provides recommended mitigations for diesel PM and GHG emissions. For projects that exceed the DPM threshold (i.e., 1.25 lbs/day) due to significant diesel vehicle activity (e.g., mining operations, distribution facilities, etc.), project emissions must be recalculated to demonstrate that the project emissions are below the APCD DPM threshold of significance when mitigation measures are included.

Table 3-5: Mitigation Measures

Table 3-3: Mitigation Measures			POLLUTANT REDUCED
LAND USE  Residential (R) Commercial (C) Industrial (I)	Measure Type	MITIGATION MEASURE	Ozone (O) Particulate (P) Diesel Particulate Matter (DPM) Greenhouse Gas (GHG)
R, C, I	Site design, Transportation	Improve job / housing balance opportunities within communities.	O, P, GHG
R, C, I	Site design	Orient buildings toward streets with automobile parking in the rear to promote a pedestrian-friendly environment.	O, P, GHG
R, C, I	Site design	Provide a pedestrian-friendly and interconnected streetscape to make walking more convenient, comfortable and safe (including appropriate signalization and signage).	O, P, GHG
R, C, I	Site design	Provide good access to/from the development for pedestrians, bicyclists, and transit users.	O, P, GHG
R, C, I	Site design	Incorporate outdoor electrical outlets to encourage the use of electric appliances and tools.	O, P, GHG
R, C, I	Site design	Provide shade tree planting in parking lots to reduce evaporative emissions from parked vehicles. Design should provide 50% tree coverage within 10 years of construction using low ROG emitting, low maintenance native drought resistant trees. <sup>3</sup>	O, P, GHG
R, C, I	Site design	Pave and maintain the roads and parking areas	P
R, C, I	Site design	Driveway design standards (e.g., speed bumps, curved driveway) for self-enforcing of reduced speed limits for unpaved driveways.	P
R, C, I	Site design	Use of an APCD-approved suppressant on private unpaved roads leading to the site, unpaved driveways and parking areas; applied at a rate and frequency that ensures compliance with APCD Rule 401, visible emissions and ensures offsite nuisance impacts do not occur.	P
R, C	Site design	Development is within 1/4 mile of transit centers and transit corridors.	O, P, GHG
R, C	Site design	Design and build compact communities in the urban core to prevent sprawl.	O, P, GHG
R, C	Site design	Increase density within the urban core and urban reserve lines.	O, P, GHG
R, C	Site design	For projects adjacent to high-volume roadways or railroad idling zones, design project to include provide effective buffer zone between the source and the receptor.	DPM
R, C	Site design	For projects adjacent to high-volume roadways, plant vegetation <sup>4</sup> between receptor and roadway.	DPM, P
R	Site design	No residential wood burning appliances.	O, P, GHG
R, C, I	Site design, Transportation	Incorporate traffic calming modifications to project roads, such as narrower streets, speed platforms, bulb-outs and intersection designs that reduce vehicle speeds and encourage pedestrian and bicycle travel.	O, P, GHG
R, C, I	Site design, Transportation	Increase number of connected bicycle routes/lanes in the vicinity of the project.	O, P, GHG
R, C, I	Site design, Transportation	Provide easements or land dedications and construct bikeways and pedestrian walkways.	O, P, GHG
R, C, I	Site design, Transportation	Link cul-de-sacs and dead-end streets to encourage pedestrian and bicycle travel to adjacent land uses.	O, P, GHG
R, C, I	Site design, Transportation	Project is located within one-half mile of a 'Park and Ride' lot or project installs a 'Park and Ride' lot with bike lockers in a location of need defined by SLOCOG.	O, P, GHG
C, I	Site design, Transportation	Provide onsite housing for employees.	O, P, GHG

<sup>3</sup> Trees must be maintained for life of project

<sup>4</sup> Certain types of vegetation provide maximum effectiveness. Vegetation must be maintained over the life of the project.



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LAND USE Residential (R) Commercial (C) Industrial (I)	Measure Type	MITIGATION MEASURE	POLLUTANT REDUCED Ozone (O) Particulate (P) Diesel Particulate Matter (DPM) Greenhouse Gas (GHG)
C, I	Site design, Transportation	Implement on-site circulation design elements in parking lots to reduce vehicle queuing and improve the pedestrian environment.	O, P, GHG
C, I	Site design, Transportation	Provide employee lockers and showers. One shower and 5 lockers for every 25 employees are recommended.	O, P, GHG
C, I	Site design, Transportation	Parking space reduction to promote bicycle, walking and transit use.	O, P, GHG
R	Site design	Tract maps resulting in parcels of one-half acre or less shall orient at least 75% of all lot lines to create easy due south orientation of future structures.	GHG
R	Site design	Trusses for south-facing portions of roofs shall be designed to handle dead weight loads of standard solar-heated water and photovoltaic panels. Roof design shall include sufficient south-facing roof surface, based on structures size and use, to accommodate adequate solar panels. For south facing roof pitches, the closest standard roof pitch to the ideal average solar exposure shall be used.	O, GHG
R, C, I	Energy efficiency	Increase the building energy rating by 20% above Title 24 requirements. Measures used to reach the 20% rating cannot be double counted.	O, GHG
R, C, I	Energy efficiency	Plant drought tolerant, native shade trees along southern exposures of buildings to reduce energy used to cool buildings in summer. <sup>5</sup>	O, GHG
R, C, I	Energy efficiency	Utilize green building materials (materials which are resource efficient, recycled, and sustainable) available locally if possible.	O, DPM, GHG
R, C, I	Energy efficiency	Install high efficiency heating and cooling systems.	O GHG
R, C, I	Energy efficiency	Orient 75 percent or more of homes and/or buildings to be aligned north / south to reduce energy used to cool buildings in summer.	O GHG
R, C, I	Energy efficiency	Design building to include roof overhangs that are sufficient to block the high summer sun, but not the lower winter sun, from penetrating south facing windows (passive solar design).	O, GHG
R, C, I	Energy efficiency	Utilize high efficiency gas or solar water heaters.	O, P, GHG
R, C, I	Energy efficiency	Utilize built-in energy efficient appliances (i.e. Energy Star <sup>®</sup> ).	O, P GHG
R, C, I	Energy efficiency	Utilize double-paned windows.	O, P, GHG
R, C, I	Energy efficiency	Utilize low energy street lights (i.e. sodium).	O, P, GHG
R, C, I	Energy efficiency	Utilize energy efficient interior lighting.	O, P, GHG
R, C, I	Energy efficiency	Utilize low energy traffic signals (i.e. light emitting diode).	O, P, GHG
R, C, I	Energy efficiency	Install door sweeps and weather stripping (if more efficient doors and windows are not available).	O, P, GHG
R, C, I	Energy efficiency	Install energy-reducing programmable thermostats.	O, P, GHG
R, C, I	Energy efficiency	Participate in and implement available energy-efficient rebate programs including air conditioning, gas heating, refrigeration, and lighting programs.	O, P, GHG

<sup>5</sup> Trees must be maintained for the life of the project

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LAND USE Residential (R) Commercial (C) Industrial (I)	Measure Type	MITIGATION MEASURE	POLLUTANT REDUCED Ozone (O) Particulate (P) Diesel Particulate Matter (DPM) Greenhouse Gas (GHG)
R, C, I	Energy efficiency	Use roofing material with a solar reflectance values meeting the EPA/DOE Energy Star <sup>®</sup> rating to reduce summer cooling needs.	O, P, GHG
R, C, I	Energy efficiency	Utilize onsite renewable energy systems (e.g., solar, wind, geothermal, low-impact hydro, biomass and bio-gas).	O, P, GHG
R, C, I	Energy efficiency	Eliminate high water consumption landscape (e.g., plants and lawns) in residential design. Use native plants that do not require watering and are low ROG emitting.	O, GHG
R, C, I	Energy efficiency	Provide and require the use of battery powered or electric landscape maintenance equipment for new development.	O, GHG
C, I	Energy efficiency	Use clean engine technologies (e.g., alternative fuel, electrification) engines that are not subject to regulations.	O, DPM, GHG
R, C, I	Transportation	Provide and maintain a kiosk displaying transportation information in a prominent area accessible to employees and patrons.	O, P, GHG
R, C, I	Transportation	Develop recreational facility (e.g., parks, gym, pool, etc.) within one-quarter of a mile from site.	O, P, GHG
R, C, I	Transportation	If the project is located on an established transit route, provide improved public transit amenities (i.e., covered transit turnouts, direct pedestrian access, covered bench, smart signage, route information displays, lighting etc.).	O, P, GHG
R, C, I	Transportation	Project provides a display case or kiosk displaying transportation information in a prominent area accessible to employees or residents.	O, P, GHG
R, C, I	Transportation	Provide electrical charging station for electric vehicles.	O, P, GHG
R, C, I	Transportation	Provide neighborhood electric vehicles / car share program for the development.	O, P, GHG
R, C, I	Transportation	Provide bicycle-share program for development.	O, P, GHG
R, C, I	Transportation	Provide preferential parking / no parking fee for alternative fueled vehicles or vanpools.	O, P, GHG
R, C, I	Transportation	Provide bicycle lockers for existing 'Park and Ride' lots where absent or insufficient.	O, P, GHG
R, C, I	Transportation	Provide vanpool, shuttle, mini bus service (alternative fueled preferred).	O, P, DPM, GHG
C, I	Transportation	Provide secure on-site bicycle indoor storage, lockers, or racks.	O, P, GHG
C, I	Transportation	For large developments, provide day care facility on site.	O, P, GHG
C, I	Transportation	Provide on-site bicycle parking both short term (racks) and long term (lockers, or a locked room with standard racks and access limited to bicyclist only) to meet peak season maximum demand. One bike rack space per 10 vehicle/employee space is recommended.	O, P, GHG
C, I	Transportation	On-site eating, refrigeration and food vending facilities	O, P, GHG
C, I	Transportation	Implement a Transportation Choice Program to reduce employee commute trips. The applicant shall work with Rideshare for free consulting services on how to start and maintain a program.	O, P, GHG
C, I	Transportation	Provide incentives (e.g., bus pass, "Lucky Bucks", etc.) to employees to carpool/vanpool, take public transportation, telecommute, walk bike, etc.	O, P, GHG
C, I	Transportation	Implement compressed work schedules (i.e., 9-80s or 4-10s).	O, P, GHG
C, I	Transportation	Implement a telecommuting program.	O, P, GHG
C, I	Transportation	Implement a lunchtime shuttle to reduce single occupant vehicle trips.	O, P, GHG



LAND USE Residential (R) Commercial (C) Industrial (I)	Measure Type	MITIGATION MEASURE	POLLUTANT REDUCED Ozone (O) Particulate (P) Diesel Particulate Matter (DPM) Greenhouse Gas (GHG)
C, I	Transportation	Include teleconferencing capabilities, such as web cams or satellite linkage, which will allow employees to attend meetings remotely without requiring them to travel out of the area.	O, P, DPM, GHG
C, I	Transportation	If the development is or contains a grocery store or large retail facility, provide customers home delivery service in clean fueled vehicles	O, P, DPM, GHG
C, I	Transportation	At community event centers (i.e., amphitheaters, theaters, and stadiums) provide valet bicycle parking.	O, P, GHG
C, I	Transportation	Implement a "No Idling" program for heavy-duty diesel vehicles, which includes signage, citations, etc.	DPM, GHG
C, I	Transportation	Develop satellite work sites.	O, GHG
C, I	Transportation	Require the installation of electrical hookups at loading docks and the connection of trucks equipped with electrical hookups to eliminate the need to operate diesel-powered TRUs at the loading docks.	DPM, GHG
C, I	Transportation	If not required by other regulations (ARB's on-road or off-road diesel), restrict operation to trucks with 2007 model year engines or newer trucks.	O, DPM, GHG
C, I	Transportation	If not required by other regulations (ARB's on-road or off-road diesel), require or provide incentives to use diesel particulate filters for truck engines.	DPM
R	Transportation	Provide storage space in garage for bicycle and bicycle trailers, or covered racks / lockers to service the residential units.	O, P, GHG
R	Transportation	Provide free-access telework terminals and/or wi-fi access in multi-family projects.	O, P, GHG
C	Transportation	Develop core commercial areas within 1/4 to 1/2 miles of residential housing or industrial areas.	O, P, GHG

### 3.8.3 Off-Site Mitigation

Operational phase emissions from large development projects that cannot be adequately mitigated with on-site mitigation measures alone will require off-site mitigation in order to reduce air quality impacts to a level of insignificance if emissions cannot be adequately mitigated with on-site mitigation measures alone. Whenever off-site mitigation measures are deemed necessary, it is important that the developer, lead agency and APCD work together to develop and implement the measures to ensure successful outcome. This work should begin at least six months prior to issuance of occupancy permits for the project.

The first step in determining whether off-site mitigation is required is to compare the estimated operational phase emissions to the APCD significance thresholds. If the sum of ROG + NO<sub>x</sub> emissions exceeds 25 tons/year, off-site mitigation will be required. Off-site mitigation may also be required for development projects where emissions exceed the 25 lb/day threshold. Examples of projects potentially subject to off-site mitigation include rural subdivisions, drive-through facilities and commercial development located far from the urban core.

If off-site mitigation is required, potential off-site mitigation measures may be proposed and implemented by the project proponent following APCD approval of the appropriateness and effectiveness of the proposed measure(s). Alternatively, the project proponent can pay a mitigation fee based on the amount

of emission reductions needed to bring the project impacts below the applicable significance threshold. The APCD shall use these funds to implement a mitigation program to achieve the required reductions. The following outlines how to calculate the amount of off-site mitigation fees required for a given project:

- Calculate the operational phase emissions for the project using CALEEMOD, or an equivalent calculation tool approved by the APCD; include the emission reduction benefits of any onsite mitigation measures included in the project. Any project emissions calculated to be above the APCD significance thresholds are defined as excess emissions and must be reduced below the emission thresholds by off-site mitigation.
- Project emissions above the lbs/day threshold must be converted to tons/year and divided by the daily-to-annual equity ratio value of 5.5 to obtain an equivalent tons/year value.
- The excess tons/year emissions are then multiplied by the project life (i.e., 50 years for residential projects and 25 years for commercial projects) and the most current cost-effectiveness<sup>6</sup> value as approved for the Carl Moyer grant program.

Off-site emission reductions can result from either stationary or mobile sources, but should relate to the on-site impacts from the project in order to provide proper "nexus" for the air quality mitigation. For example, NO<sub>x</sub> emissions from increased vehicle trips from a large residential development could be reduced by funding the expansion of existing transit services in close proximity to the development project to reduce NO<sub>x</sub> emissions. An off-site mitigation strategy should be developed and agreed upon by all parties prior to the start of construction.

The off-site mitigation strategies include but are not limited to the list provided below:

- Develop or improve park-and-ride lots;
- Retrofit existing homes in the project area with APCD-approved natural gas combustion devices;
- Retrofit existing homes in the project area with energy-efficient devices;
- Retrofit existing businesses in the project area with energy-efficient devices;
- Construct satellite worksites;
- Fund a program to buy and scrap older, higher emission passenger and heavy-duty vehicles.
- Replace/repower transit buses;
- Replace/repower heavy-duty diesel school vehicles (i.e. bus, passenger or maintenance vehicles);
- Fund an electric lawn and garden equipment exchange program;
- Retrofit or repower heavy-duty construction equipment, or on-road vehicles;
- Install bicycle racks on transit buses;
- Purchase Verified Diesel Emission Control Strategies (VDECS) for local school buses, transit buses or construction fleets;
- Install or contribute to funding alternative fueling infrastructure (i.e. fueling stations for CNG, LPG, conductive and inductive electric vehicle charging, etc.);
- Fund expansion of existing transit services;
- Fund public transit bus shelters;
- Subsidize vanpool programs;
- Subsidize transportation alternative incentive programs;
- Contribute to funding of new bike lanes;
- Install bicycle storage facilities; and,

<sup>6</sup> Cost-effectiveness is a measure of the dollars needed to reduce a ton of emissions. The cost-effectiveness used to calculate off-site mitigation is based on the Carl Moyer Grant Program and is updated on a periodic basis. The Carl Moyer cost effectiveness value as of 2009 is \$16,000 per ton. There will be a 10% administration fee charged for grant administration.



- Provide assistance in the implementation of projects that are identified in city or county Bicycle Master Plans.

### 3.9 EVALUATION OF PROJECT CHANGES

If the scope or project description is modified after final project approval, the project will need to be re-evaluated by the APCD to determine if additional air quality impacts will result from the proposed modifications. If additional impacts are expected, the cumulative impacts from the total project must be evaluated.

### 3.10 MITIGATION MONITORING

In order to ensure the operational phase air quality mitigation measures and project revisions identified in the EIR or mitigated negative declarations are implemented, the APCD may conduct site visits to ensure that the mitigation measures are fully implemented. The lead agency may also review project mitigation for consistency with project conditions. Beyond verifying mitigation implementation, this monitoring can result in compliance requirements if mitigation measures are not sufficiently being implemented.

## 4 TECHNICAL APPENDICES

### 4.1 BUILDING PERMIT REQUIREMENTS FOR FACILITIES POTENTIALLY SUBJECT TO AIR DISTRICT PERMITS

#### WHAT IS THE SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT?

The San Luis Obispo County Air Pollution Control District (APCD) regulates stationary sources of air pollution such as factories, industrial sites, and gasoline stations. APCD regulations apply to many manufacturing and industrial procedures as well as such things as evaporative compounds, gasoline, paint, odors, incineration, smoke and open burning.

Government Code section 65850.2 identifies certain air pollution information that cities and counties are required to collect for new building and development projects. Sections 42301.6 to 42301.9 (AB 3205) of the California Health & Safety Code address the release of hazardous air contaminants near schools, and discuss requirements for air district permits for new or modified facilities.

The following overview describes how the law may affect you.

#### NEW BUILDING PERMIT REQUIREMENTS

**Under the law, final certificates of occupancy may not be issued unless certain requirements are met.** One of the requirements is that all applicants must comply with APCD permit regulations, or make a showing to the APCD that the permit regulations do not apply to their particular project.

A questionnaire will accompany all building permit application packets distributed by City and County Planning and Building Departments. This questionnaire pertains to facility location and equipment, processes, and materials which may require an APCD permit. This questionnaire should be completed and returned to the Planning and Building Department for initial screening and processing. If an APCD permit is required, and if air emissions occur within 1000 ft. of a school,

focused notification of nearby residents and student's parents may be required.

All planning and building departments have a description of typical facility types, processes, and equipment that require an APCD Permit to Operate. The table at the back of the attached questionnaire provides a list of these facilities. Operations which usually require an APCD Permit include:

- Solvent cleaners (degreasers)
- Coating of metal parts and products
- Printing and coating operations
- Auto body shops
- Paint spray booths
- Storage of organic liquids
- Wood furniture and cabinet coating
- Air pollution control equipment
- Gasoline stations or any gasoline dispensing facility
- Sandblasting
- Equipment which handles asbestos, beryllium, benzene, hexavalent chromium, mercury, or vinyl chloride.
- Other solvent uses

*It should be noted that all residential construction is exempt from these requirements.*

If you are unsure whether or not your project is subject to permit requirements, the necessary information can be obtained by contacting the APCD and describing the proposed project. APCD staff can then determine if an application must be filed.

#### REQUIREMENTS FOR EXISTING OR PROPOSED PROJECTS NEAR SCHOOLS

Under the California Health and Safety Code, there are specific requirements which must be met by both the APCD and existing or proposed commercial or industrial facilities near a school.

Upon receipt of the facility operations questionnaire, the APCD will evaluate it for equipment or processes requiring a permit and for proximity to sensitive receptors. This initial screening will occur within fourteen (14) days of



receipt of the questionnaire. The APCD will notify the applicant and the planning agency if further action is necessary under the law and/or the APCD permit process. If no further action is required, then the APCD will sign off on the questionnaire and return it to the Planning Agency. If hazardous materials may be used at the facility, APCD will also forward it to the Environmental Health Department or, for projects located within the City of San Luis Obispo, the San Luis Obispo Fire Department. If additional action is required under the law or the APCD permitting process, a description of required actions will be included in the letter sent to the planning department and the applicant.

#### CONSTRUCTION OF NEW SCHOOLS

For construction of new schools, **any person or agency preparing an Environmental Impact Report for a proposed school site must consult with the city, county, and the APCD to identify facilities within one-quarter mile of the proposed school site which may emit hazardous air emissions, or have the potential to explode or catch fire.** The city, county, and APCD have 30 days to provide this information to the person or agency seeking it. This requirement is spelled out in the Public Resources Code Sec. 21151.8, Subd.(a) (4).

#### FORESEEABLE THREAT OF RELEASE OF HAZARDOUS AIR CONTAMINANT

Under certain conditions, the law requires the APCD to take action when there is a reasonable threat of release of a hazardous air contaminant. APCD action is required if:

1. The release is predicted from a facility located within 1000 feet of a school; and
2. The release has the potential to impact persons at the school to the extent that a public health threat or nuisance could result.

When the release of a hazardous air contaminant is forecast, the APCD must notify the agency responsible for administering the hazardous materials policy. In addition, the APCD may respond to this reasonable threat of release by:

1. Issuing an immediate order to prevent the release; or,
2. Mitigating the foreseeable threat of a release, pending a hearing; or,
3. Applying to the APCD Hearing Board for issuance of an Order of Abatement.

Furthermore, if the principal of a school contacts the APCD to request an investigation of odors or possible air pollution sources as the cause of illness among school children, within 24 hours the APCD must respond and notify the city or county official responsible for administering hazardous materials policy and the fire department having jurisdiction over the school.

#### FOR HELP

This handout provides answers to commonly asked questions about new building permit and occupancy requirements. If you need additional information regarding these requirements, please call (805) 781- 5912.



Air Pollution Control District  
San Luis Obispo County

## FACILITY OPERATIONS QUESTIONNAIRE

For the Incorporated and Unincorporated Areas of San Luis Obispo County

State law (AB 3205) requires an applicant for a commercial/industrial development project, building permit or occupancy permit to provide information to the Air Pollution Control District (APCD) indicating whether hazardous materials or certain equipment or processes will be used in or at the facility. Such uses may require a permit from the APCD and/or a Hazardous Materials Business Plan. **This law prohibits a City or County from issuing a final certificate of occupancy until the applicant or future building occupant has complied with the provisions of the law.** The law may also impose certain public noticing requirements for a facility that handles hazardous materials and is located within 1,000 feet of the outer boundary of a school (kindergarten through 12th grade). Additional information explaining the requirements of this law is attached to this form.

#### TO DETERMINE WHETHER YOUR BUSINESS IS SUBJECT TO THESE REQUIREMENTS, PLEASE COMPLETE THIS QUESTIONNAIRE:

Business Name (Doing Business As):		Contact Person:	Phone ( )
Mailing Address:		City	State Zip
Nearest Cross Streets:			
1.	WILL THE INTENDED OCCUPANT(S) INSTALL OR USE ANY PIECE OF EQUIPMENT LISTED ON THE ATTACHED LIST? <i>(If YES forward to Air Pollution Control District.)</i>	YES <input type="checkbox"/>	NO <input type="checkbox"/>
2.	WILL THE INTENDED OCCUPANT(S) STORE, HANDLE OR USE ANY HAZARDOUS MATERIALS LISTED ON THE ATTACHED LIST? <i>(If YES forward to Air Pollution Control District.)</i>	YES <input type="checkbox"/>	NO <input type="checkbox"/>
Briefly Describe Nature of the Intended Business Activity:			
Name of Owner or Authorized Agent:		Title:	
I declare under penalty of perjury that, to the best of my knowledge and belief, the responses made herein are true and correct:		Agency Project ID Number: .	
Signature of Owner or Authorized Agent:		Multiple or Unknown Occupants	
Signed: _____ Date: _____		<input type="checkbox"/> Check if Applicable	
<b>FOR PLANNING DEPARTMENT USE ONLY</b>			
Forwarded to APCD for processing:		YES <input type="checkbox"/>	NO <input type="checkbox"/>
		Planning Dept. Official _____	Date _____
<b>FOR APCD USE ONLY</b>			
APCD permit required	YES <input type="checkbox"/>	NO <input type="checkbox"/>	FORWARDED TO:
Potential hazardous materials	<input type="checkbox"/>	<input type="checkbox"/>	ENV. HEALTH
Within 1000' of a school	<input type="checkbox"/>	<input type="checkbox"/>	S.L.O. CITY FIRE
Public notice required	<input type="checkbox"/>	<input type="checkbox"/>	YES <input type="checkbox"/>
			NO <input type="checkbox"/>
PROCESSED AND RETURNED TO PLANNING DEPARTMENT BY:		FINAL CHECK-OFF	
Air Pollution Control District Official _____ Date _____		Planning Department Official _____ Date _____	



## PERMIT CATEGORIES

Businesses with the following equipment, operations or materials will require clearance from the Air Pollution Control District before obtaining a Certificate of Occupancy. Businesses which store, handle, or use hazardous materials will require clearance from the San Luis Obispo City Fire Department or San Luis Obispo County Environmental Health before obtaining a Certificate of Occupancy.

### CHEMICALS

Ethylene Oxide Sterilizers  
Acid Chemical Milling  
Evaporators, Dryers, and Stills  
Processing Organic Materials  
Dry Chemical Mixing and storage

### COATINGS AND SURFACE

#### PREPARATION

Abrasive Blasting Equipment  
Coating and Painting (not house-  
painting)  
Paint, Stain, and Ink Manufacturing  
Printers

### COMBUSTION

Piston Internal Combustion Engines  
(50 hp or larger)  
Incinerators and Crematories  
Boilers and Heaters (2 million BTU/hr  
or larger)

### ELECTRONICS

Solder Levelers  
Wave Solder Machines  
Vapor Degreasers  
Fume Hood Scrubbers  
Electrolytic Plating  
Silicone Chip Manufacturing

### FOOD

Smokehouses  
Feed and Grain Mills  
Coffee Roasters  
Bulk Flour and Grain Storage

### METALS

Metal Melting Devices  
Hot Dip Galvanizing  
Cadmium or Chrome Plating  
Chromic Acid Anodizing

### PETROLEUM FUELS MARKETING

Gasoline and Alcohol Bulk Plants  
and Terminals  
Gasoline and Alcohol Fuel Dispensing

### ROCK AND MINERAL

Hot Asphalt Batch Plants  
Sand, Rock, and Aggregate Plants  
Concrete Batch, Concrete Mixers,  
and Silos  
Brick Manufacturing

### SOLVENT USE

Vapor and Cold Degreasing  
Solvent and Extract Dryers  
Dry Cleaning

### OTHER

Asphalt Roofing Tanks  
Aqueous Waste Neutralization  
Landfill Gas Flare or Recovery  
Systems  
Waste Disposal and Reclamation  
Units  
Grinding Booths and Rooms  
Oil Field Exploration or Production  
Plastic/Fiberglass Manufacturing  
Soil Aeration/Reclamation  
Storage of Organic Liquids  
Powder Coating  
Fiberglass Chopper Guns  
Waste Water Treatment Works

### EXAMPLES OF HAZARDOUS MATERIALS

Ammonia  
Acids and Bases  
Chlorine  
Compressed Gases  
Corrosives  
Cryogenic Fluids  
Explosives  
Fertilizers  
Flammable Liquids and Solids

Gasoline  
Hazardous Material Mixtures  
Herbicides  
Industrial Cleaners  
Infectious/Biological Materials  
Oxidizing Materials  
Paint Thinners  
Paints  
Pesticides

Petroleum Products  
Poisons  
Pyrophoric/Hypergolic Materials  
Radioactives  
Solvents  
Waste Oils  
Water Reactives  
Welding Gases

NOTE: Other equipment not listed here that is capable of emitting air contaminants may require a San Luis Obispo County Air Pollution Control District Permit. If there are any questions, contact the APCD at (805) 781-5912. For information on Hazardous Materials located within the City of San Luis Obispo contact the San Luis Obispo Fire Department at (805) 781-7380. All other areas contact County Environmental Health at (805) 781-5544.

**IF YOU INSTALL AND/OR OPERATE EQUIPMENT WITHOUT A REQUIRED PERMIT, YOU MAY BE SUBJECT TO LEGAL ACTION AND PENALTIES OF UP TO \$50,000 PER DAY FOR EACH DAY OF VIOLATION**

## TIMELINE AND IMPLEMENTATION PROCESS

### I. Outside Agency (Planning Department) Responsibilities

- A. Planning Department distributes Development Plan (DP) Application Packet to applicant. This packet includes AB3205 information.
- B. Applicant completes the DP packet, and returns it to the Planning Department.
- C. Planning Department conducts **initial screening** of Hazardous Materials Questionnaire (hereafter referred to as the Questionnaire). This screening consists of reviewing the Questionnaire for answers to the following questions:
  1. Will the intended occupant(s) install or use any of the equipment listed on attached list ("San Luis Obispo County APCD Permit Categories").
  2. Will the intended occupant store, handle, or use hazardous materials in any quantity?
- D. The Planning Department performs one of the following actions, based on the response to the questions listed in Section I.C. above:
  1. If the answers to Questions #1 and #2 are **NO**, then this project is exempt from AB3205 requirements, and from APCD permitting action. The Planning Department can sign off on the Questionnaire, indicating that the project is exempt from further action under AB3205. This questionnaire is then retained as part of the project file maintained by the Planning Department.
  2. If the answer to either Question #1 or Question #2 is **YES**, the questionnaire is forwarded to the APCD for further review.

### II. APCD Responsibilities

APCD reviews the Questionnaires received from the Planning Department. Within 14 days, one of the following determinations will be made:

- A. If the answer to question 1 on the Facility Operations Questionnaire is **NO** and the APCD agrees, complete the appropriate boxes on the rest of the form and return to the Planning Department.
- B. If the answer to question 1 on the Facility Operations Questionnaire is **NO** but the APCD disagrees, continue to sections C and D below.
- C. APCD Permit Required/Exempt from AB3205 Requirements.



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If the answer to Question #1 is **YES**, and the facility is not located within 1000 feet of a school, then the project is exempt from further processing under AB3205, but **IS** subject to APCD permitting requirements. As a result, the APCD will take the following actions:

**Within 7 days** of receipt of the questionnaire from the Planning Department, the APCD will:

- Review the Questionnaire to determine if the source stores, handles or uses hazardous materials (Question #2 on the form). If the answer to that question is **YES**, then APCD completes the appropriate sections of the questionnaire and forwards it to either the City of San Luis Obispo Fire Department (if project is within the City limits), or Environmental Health (all other areas). A memo to County Planning will be sent summarizing action taken.
- If Hazardous Materials storage, usage or handling is not proposed on-site, APCD Planning Staff will indicate that on the questionnaire. The "APCD Permit Required" box will be checked "YES", and the form returned to the Planning Department.

The APCD Engineering Staff sends a letter to the project applicant indicating that this project **IS** subject to APCD permit. Accompanying this letter will be an ATC (Authority to Construct) application, and other explanatory information.

Upon receipt of an ATC application, the APCD has 30 days to determine if the application is complete. A letter of completeness (or incompleteness) is sent to the applicant prior to the end of the 30-day period. If the application is incomplete, the APCD will request additional information in the aforementioned letter. If the application is complete, then the APCD will issue a completeness letter indicating that they have 180 days to issue an ATC.

After project construction is complete, the applicant must indicate in writing to the APCD that construction is complete. A field inspection will then be conducted by APCD staff to determine compliance with applicable APCD Rules and Regulations. Upon verification of compliance, a Permit-to-Operate (PTO) for the subject facility is issued by the APCD.

D. APCD Permit Required/Subject to AB3205 Requirements

If the answer to Questions #1 is **YES**, and the facility is within 1000 feet of a school, the proposed project will be subject to the APCD permitting process and AB3205 Public Noticing Requirements. The APCD will perform the following actions:

**Within 7 days** of receipt of the questionnaire from the Planning Department, the APCD will:

- Review the Questionnaire to determine if the source stores, handles or uses hazardous materials (Question #2 on the form). If the answer to that question is **YES**, then APCD completes the appropriate sections of the questionnaire and forwards it to either the City of San Luis Obispo Fire Department (if project is within the City limits), or Environmental Health (all other areas). A memo to County Planning will be sent summarizing action taken.
- If Hazardous Materials storage, usage, or handling is not proposed on-site, APCD Planning Staff will indicate as such on the questionnaire.

The APCD Engineering Staff sends a letter to the project applicant indicating that this project **IS** subject to APCD permit and AB3205 Public Noticing requirements. Accompanying this letter will be an ATC application, a description of public noticing requirements and other explanatory information.

Upon receipt of an ATC application, the APCD has 30 days to determine if the application is complete. A letter of completeness (or incompleteness) is sent to the applicant prior to the end of the 30-day period. If the application is incomplete, the APCD will request additional information in the aforementioned letter.

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When the APCD has deemed the ATC application complete, the applicant will then be required to comply with the public noticing requirements of the California Health and Safety Code, Section 42301.6. Compliance with the public noticing requirements must be demonstrated prior to APCD action on the ATC application. These requirements are as follows:

- The Air Pollution Control Officer (APCO) shall, **at the expense of the permit applicant**, distribute (or mail) a public notice to the parents or guardians of children enrolled in ANY school that is located within 1/4 mile of the proposed project site, and to each address within a 1000 ft. radius of the proposed source. An assessor's parcel map will be used to determine the area encompassing addresses within the 1000 ft. radius of the proposed project.
- The public noticing period extends for 30 days, and **MUST** begin at least 30 days prior to the APCD taking final action on the ATC application for the proposed project. This notice may be combined with any other notice on the project or permit, which is required by law. The APCO shall review and consider all public comments received during the 30 days after the notice is distributed, and shall include written responses to the comments in the permit application file prior to taking final action on the application.

State law requires the APCD to approve or deny the ATC within 180 days of the date on which the A/C application was deemed complete. The public noticing period and the APCD response to public comments **MUST** occur within this time period. The APCD cannot issue the ATC until public noticing requirements for AB3205 have been satisfied.

After project construction is completed, the applicant must indicate **in writing** to the APCD that construction is complete. A field inspection will then be conducted by APCD staff to determine compliance with applicable APCD Rules and Regulations. Upon verification of compliance, a PTO or the subject facility is issued by the APCD.



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4.2 ARB'S RECOMMENDATIONS ON SITING NEW SENSITIVE LAND USES <sup>7</sup>

Table 4-1: Siting New Sensitive Land Use

Source Category	Advisory Recommendations
Freeways and high-traffic roads	<ul style="list-style-type: none"><li>Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles per day.</li></ul>
Distribution centers	<ul style="list-style-type: none"><li>Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week).</li><li>Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.</li></ul>
Railyards	<ul style="list-style-type: none"><li>Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard.</li><li>Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.</li></ul>
Ports	<ul style="list-style-type: none"><li>Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult the Air District or the ARB on the status of pending analyses of health risks.</li></ul>
Refineries	<ul style="list-style-type: none"><li>Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.</li></ul>
Chrome platers	<ul style="list-style-type: none"><li>Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.</li></ul>
Dry cleaners using perchloroethylene	<ul style="list-style-type: none"><li>Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district.</li><li>Do not site new sensitive land uses in the same building with perchloroethylene</li><li>dry cleaning operations.</li></ul>
Gasoline dispensing facilities	<ul style="list-style-type: none"><li>Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.</li></ul>

<sup>7</sup>

- These recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.
- Recommendations are based primarily on data showing that the air pollution exposures addressed here (i.e., localized) can be reduced as much as 80% with the recommended separation.
- The relative risk for these categories varies greatly. To determine the actual risk near a particular facility, a site-specific analysis would be required. Risk from diesel PM will decrease over time as cleaner technology phases in.
- These recommendations are designed to fill a gap where information about existing facilities may not be readily available and are not designed to substitute for more specific information if it exists. The recommended distances take into account other factors in addition to available health risk data (see individual category descriptions).
- Site-specific project design improvements may help reduce air pollution exposures and should also be considered when siting new sensitive land uses.
- This table does not imply that mixed residential and commercial development in general is incompatible. Rather it focuses on known problems like dry cleaners using Perchloroethylene that can be addressed with reasonable preventative actions.
- A summary of the basis for the distance recommendations can be found in the ARB Handbook.

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4.3 APCD-APPROVED DUST SUPPRESSANTS

The following list of dust control suppressants are approved by the SLO County APCD. The approved suppressants must be reapplied at a frequency that ensures that fugitive dust emissions are adequately controlled to below the 20% opacity limit identified in the APCD Rule 401 *Visible Emissions* and to ensure that dust is not emitted offsite. If fugitive dust is not adequately controlled, emissions could result in complaints and a violation of APCD Rule 402 *Nuisance*. The APCD will consider products that are not listed on a case-by-case basis; provide product specifics to APCD by contacting the APCD Planning Division at (805) 781-5912.

Suppressants are often used in combination with other APCD recommended control methods to minimize fugitive dust emissions. Other methods include:

- 1) Paving and then maintaining to applicable standards thus replacing need for suppressants and other control methods;
- 2) Implementing and maintaining design standards to ensure vehicles speeds on unpaved areas are physically limited to a posted speed limit of 15 mph or less; and
- 3) For special events, site parking areas in grass or low cut dense vegetative areas that are adequately irrigated to minimize fugitive dust emissions.

SLO County APCD used a 2002 San Joaquin Valley APCD [1] list of dust suppressants as the starting point for the list presented below. Products that could not be readily found were removed from the list. This SLO County APCD list also streamlines the SJVAPCD list by removing hygroscopic products and all but one of the petroleum based products from the SJVAPCD list. A petroleum based method (chipseal) and three polymer products (Dust Binder, Gorilla-Shot, and Soiltec) were added to the list.

Any chemical or organic material used for stabilizing solids shall not violate the California State Water Quality Control Board standards for use as a soil stabilizer. Any dust suppressant must not be prohibited for use by the US Environmental Protection Agency, the California Air Resources Board, or other applicable law, rule, or regulation.

Table 4-2: Approved Dust Suppressants

Suppressant Category	Suppressant Sub-Category	Product Common Name	Company	Product Web Link
Adhesives	Lignosulfonate	• CalBinder	California-Fresno Oil Co. (209) 486-0220	www.calfresno.com
		• DC-22	Dallas Roadway Products, Inc. SALS Roadway Products. (972) 758-7454	www.dallasroadway.com www.salsroadproducts.com
		• Dustac, Dustac-100	Georgia Pacific. (866) 447-2436, (800) 283-5547	www.gp.com/chemical
		• Lignin LS-50™	Prince Minerals, Inc. (646) 747-4200	www.princeminerals.com/products/dust_control.php
		• Lignosulfonate	EnviroTech Services. (800) 569-5878	www.envirotechservices.com
Calcium Lignosulfonate	Calcium Lignin LS-50™	• Polybinder	Jim Good Marketing (805) 746-3783	-
		• Calcium Lignin LS-50™	Prince Minerals, Inc. (646) 747-4200	www.princeminerals.com/products/dust_control.php
Petroleum Emissions		• Dustac® Road Binder	Quatsino Navigation Co. Ltd (916) 442-9089	http://www.bellmarine.com/Dustac.htm
		• PennzSuppress-D [2]	PennzSuppress® Dust Suppressant American Refining Group, Inc. (814) 368-1200	www.arb.ca.gov/cqpr/pennzoi/pennzoi.htm
		• DC-1000	Desert Mountain (505) 598-5730	www.arb.ca.gov/cqpr/pennzoi/pennzoi.htm
Polymer		• Dust Binder	Monterey AgResources. (559) 499-2100	www.desertmncorp.com
				www.montereyagresources.com



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Suppressant Category	Suppressant Sub-Category	Product Common Name	Company	Product Web Link
		• Earthbound, Earthbound L	Earth Chem, Inc. (800) 764-5726	www.earthchem.com
		• Liquid Dust Control	Enviroseal Corporation (800) 775-9474	www.enviroseal.com/dc.htm
		• Marloc	Reclamare Co. (206) 824-2385	-
		• PolyPavement	PolyPavement Company (323) 954-2240	www.polypavement.com
		• Soil Master WR	Environmental Soil Systems, Inc. (800) 368-4115	-
		• Soil Seal	Trans Western Chemicals, Inc. (562) 942-1833	www.soilseal.com
		• Soil Sement [2]	Midwest Industrial Supply, Inc. (800) 321-0699	www.arb.ca.gov/esqr/midwest.htm
		• Soiloc-D	Hercules Soiloc (800) 815-7668	-
		• Soiltac or Gorilla-Snot	Soilworks, LLC (800) 545-5420	www.soilworks.com
		• TerraBond PolySeal	Fluid Sciences, LLC (888) 356-7847	www.fluidsciences.com
		• Top Shield	Base Seal International, Inc. (800) 729-6985	www.baseseal.com
Oil-Rock Binding Agent		• Chipseal [3]	-	-

[1] Re: [www.valleyair.org/business/comply/PM10/Products%20Available%20for%20Controlling%20PM10%20Emissions.htm](http://www.valleyair.org/business/comply/PM10/Products%20Available%20for%20Controlling%20PM10%20Emissions.htm)

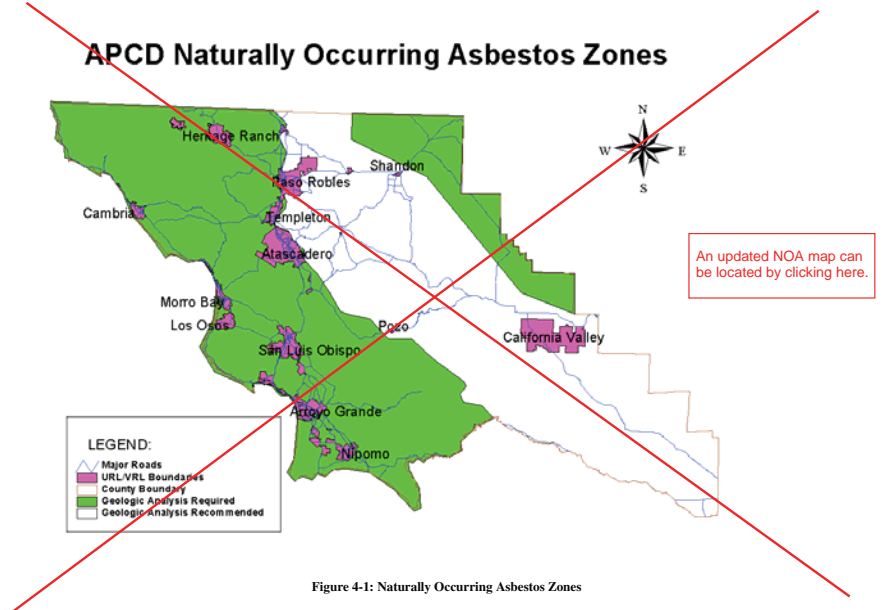
[2] "Pre-certified" by the California Air Resources Board; [www.arb.ca.gov/esqr/esqr.htm](http://www.arb.ca.gov/esqr/esqr.htm)

[3] Though chipseal is typically used as a sealant for paved roads, it can also be an effective dust suppressant on unpaved private roads. Project proponents accept liability of potential vehicle or property damage associated with this dust control method.

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#### 4.4 SLO COUNTY NATURALLY OCCURRING ASBESTOS MAP



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#### 4.5 CONSTRUCTION ACTIVITY MANAGEMENT PLAN GUIDELINES

A Construction Activity Management Plan (CAMP) may be required by the Air Pollution Control District (APCD) for construction projects that will result in significant particulate matter (PM) and/or nitrogen oxide (NO<sub>x</sub>) emission impacts, such as potentially high emissions of fugitive dust or NO<sub>x</sub>, or emissions in areas where potential nuisance concerns are present. The purpose of the CAMP is to specifically define the mitigation measures that will be employed as the project moves forward, in order to ensure all requirements are accounted for in the project budget, included in the contractor bid specifications, and are fully implemented throughout project construction.

The following information is provided as a guide for development of the CAMP. Specific implementation of mitigation measures will vary from project to project. **The CAMP is a comprehensive mitigation plan and will need to specifically identify all of the mitigation measures to be implemented for the project.** The following is a list of potential mitigation measures to include in the CAMP. The CAMP must be submitted to the APCD for approval prior to the start of the project.

Prior to commencement of any construction activities (e.g., site preparation, grading or construction activities) the applicant will notify the appropriate planning agency and the APCD, by letter, of the status of the air quality measures outlined in the CAMP. The letter will state the following: 1) the controls that will be implemented; 2) the reasons why any unimplemented measures are considered infeasible and the measures incorporated to substitute for these measures; 3) when scheduled construction activities will be initiated to allow for APCD inspection of the mitigation measures.

- **SENSITIVE RECEPTORS (NO<sub>x</sub> and PM)**

The proximity of the project to the nearest residence and to the nearest sensitive receptor (e.g. school, daycare, hospital or senior center) needs to be documented and the mitigation measures outlined in the CAMP need to be tailored accordingly to provide adequate protection to any nearby sensitive receptors. (e.g. of mitigation measures: Locate construction staging areas away from sensitive receptors such that exhaust and other construction emissions do not enter the fresh air intakes to buildings, air conditioners, and windows).

- **MITIGATION MONITORING (NO<sub>x</sub> and PM)**

A person or persons must be designated to monitor the CAMP implementation. This person will be responsible for compliance with the CAMP. Their duties shall include holidays and weekend periods when work may not be in progress. Depending on the site location, a certified visible emissions monitor may be required. The name and telephone number of such persons shall be provided to the APCD prior to the start of any construction activities.

- **DUST CONTROL (PM)**

Construction activities can generate fugitive dust, which could be a nuisance to local residents and businesses in close proximity to the proposed construction site. Dust complaints could result in a violation of the APCD's 402 "Nuisance" Rule. The following is a list of measures that may be required throughout the duration of the construction activities:

- a. Reduce the amount of the disturbed area where possible.
- b. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. An adequate water supply source must be identified. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible.
- c. All dirt stockpile areas should be sprayed daily as needed, covered, or an APCD approved alternative method will be used.
- d. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.

- e. Exposed ground areas that will be reworked at dates greater than one month after initial grading should be sown with a fast-germinating non-invasive grass seed and watered until vegetation is established.
- f. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD.
- g. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- h. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- i. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114.
- j. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.
- k. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.

All PM<sub>10</sub> mitigation measures required should be shown on grading and building plans. In addition, the contractor or builder should designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. **The name and telephone number of such persons shall be provided to the APCD prior to land use clearance for map recordation and finished grading of the area.**

- **CONSTRUCTION PHASE GREENHOUSE GAS (GHG) EMISSION REDUCTIONS**

**The Attorney General requires GHG impact evaluation and the implementation of feasible mitigation at the project level.** As such, the project's Mitigated Negative Declaration should evaluate the project's carbon dioxide (CO<sub>2</sub>) emissions as well as other GHG sources converted to carbon dioxide equivalents and should identify feasible mitigation that the project shall implement. The project's overall GHG impact evaluation should include:

- a. The short term GHG impacts from the construction phase amortized over the life of the project (50 years for residential or residential support facilities and 25 years for commercial or industrial facilities) to provide a mechanism for the project to mitigate these impacts by adding these amortized impacts to the operational phase impacts; and
- b. The project's operational phase GHG impacts.

**For the construction phase (operational phase as well) feasible GHG mitigation measures to be implemented should be identified from the California Air Pollution Control Officer Association's (CAPCOA) January 2008 published document entitled "CEQA and Climate Change" or from other proven energy efficiency measures. The document is available online at: [www.capcoa.org/CEQA/CAPCOA%20White%20Paper.pdf](http://www.capcoa.org/CEQA/CAPCOA%20White%20Paper.pdf) In some cases where the available measures are marginally effective, off-site GHG mitigation fees are appropriate.**

- **CONSTRUCTION EQUIPMENT EMISSION REDUCTIONS (NO<sub>x</sub> and PM)**

To mitigate air quality impacts from the emissions of construction equipment engines, the APCD has project proponents apply various emission reduction methods depending on the magnitude of the project. Below are the methods used:

**Standard Control Measures for Construction Equipment**

**The standard mitigation measures for reducing nitrogen oxide (NO<sub>x</sub>), reactive organic gases (ROG), and diesel particulate matter (Diesel PM) emissions from construction equipment are listed below:**

- (a) Maintain all construction equipment in proper tune according to manufacturer's specifications;
- (b) Fuel all off-road and portable diesel powered equipment with ARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);



- (c) Use diesel construction equipment meeting ARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State off-Road Regulation;
- (d) Use on-road heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
- (e) Construction or trucking companies with fleets that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NO<sub>x</sub> exempt area fleets) may be eligible by proving alternative compliance;
- (f) All on and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5 minute idling limit;
- (g) Diesel idling within 1,000 feet of sensitive receptors is not permitted;
- (h) Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;
- (i) Electrify equipment when feasible;
- (j) Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and,
- (k) Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

Best Available Control Technology (BACT) for Construction Equipment

**If the estimated construction phase ozone precursor emissions from the actual fleet for a given Phase are expected to exceed the APCD's threshold of significances after the standard mitigation measures are factored into the estimation, then BACT needs to be implemented to further reduce these impacts.**

**The BACT measures can include:**

- Further reducing emissions by expanding use of Tier 3 and Tier 4 off-road and 2010 on-road compliant engines;
- Repowering equipment with the cleanest engines available; and
- Installing California Verified Diesel Emission Control Strategies. These strategies are listed at: <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>
- Implementing a design measure to minimize emissions from on and off-road equipment associated with the construction phase. This measure should include but not be limited to the following elements:
  - Tabulation of on and off-road construction equipment (type, age, horse-power, engine model year and miles and/or hours of operation);
  - Calculate daily worst case emissions and the quarterly emissions that include the overlapping segments of construction phases
  - Equipment Scheduling (NO<sub>x</sub> and PM)
    - Schedule activities to minimize the amount of large construction equipment operating simultaneously during any given time period;
    - Locate staging areas at least 1000 feet away from sensitive receptors;
    - Where feasible:
      - Limit the amount of cut and fill to 2,000 cubic yards per day;
      - Limit the length of the construction work-day period; and,
      - Phase construction activities.

On-Road Truck Management (NO<sub>x</sub> and PM)

- Schedule construction truck trips during non-peak hours to reduce peak hour emissions;
- Locate staging areas at least 1000 feet away from sensitive receptors;
- Proposed truck routes should be evaluated to define routing patterns with the least impact to residential communities and sensitive receptors and identify these receptors in the truck route map;
- To the extent feasible, construction truck trips should be scheduled during non-peak hours to reduce peak hour emissions; and
- Trucks and vehicles should be kept with the engine off when not in use, to reduce vehicle emissions. Signs shall be placed in queuing areas to remind drivers to limit idling to no longer than 5 minutes.

Offsite Mitigation for Construction Equipment

**If the estimated construction phase ozone precursor emissions from the actual fleet for a given Phase are expected to exceed the APCD's 6 tons/quarter threshold of significance after the standard and BACT measures are factored into the estimation, then off-site mitigation is appropriate.** The current mitigation rate is \$16,000 per ton of ozone precursor emission (NO<sub>x</sub> + ROG) over the APCD threshold evaluated over the length of the expected exceedance. The applicant may use these funds to implement APCD approved emission reduction projects near the project site or may pay that funding level plus a 15% administration fee to the APCD for the APCD to implement emission reduction projects in close proximity to the project. The applicant shall provide this funding at least two (2) months prior to the start of the project to help facilitate emission offsets that are real-time as possible.

• CONSTRUCTION WORKER TRIPS (NO<sub>x</sub>)

Implement an APCD approved Trip Reduction Program to reduce construction worker commute trips, which includes carpool matching, vanpooling, transit use, etc. Monitor worker use of alternative transportation throughout the project to ensure compliance.

• COMPLAINT RESPONSE (NO<sub>x</sub> and PM)

The CAMP should include a section that addresses complaints and complaint handling. At a minimum this section shall include the following:

- The person(s) responsible for addressing and resolving all complaints regarding the construction activity and their contact information is:
  - Name(s)
  - Company and Title(s)
  - Phone numbers and physical address.
- A hotline telephone number shall be established and publicized to help facilitate rapid complaint identification and resolution. In addition, Prop 65 notification with regard to toxic diesel emissions shall to be made.
- An action plan section shall be outlined that includes additional measures or modifications to existing mitigation measures in the event of complaints.
- All complaints shall be reported immediately to the APCD.

• PERMITTING REQUIREMENTS

Portable equipment, 50 horsepower (hp) or greater, used during construction activities may require California statewide portable equipment registration (issued by the California Air Resources Board) or an APCD permit. Operational sources may also require APCD permits.

The following list is provided as a guide to equipment and operations that may have permitting requirements, but should not be viewed as exclusive. For a more detailed listing, refer to page A-5 in the APCD's CEQA Handbook.

- Power screens, conveyors, diesel engines, and/or crushers.
- Portable generators 50 hp or greater
- Chemical product processing and or manufacturing
- Electrical generation plants or the use of standby generator
- Food and beverage preparation (primarily coffee roasters)
- Furniture and fixture products
- Metal industries, fabrication
- Small scale manufacturing
- Auto and vehicle repair and painting facilities
- Fuel dealers
- Dry cleaning
- Pipelines
- Public utility facilities
- Boilers
- IC Engines
- Sterilization units(s) using ethylene oxide and incinerator(s)
- Cogeneration facilities



- Unconfined abrasive blasting operations
- Concrete batch plants
- Rock and pavement crushing
- Tub grinders trommel screens

To minimize potential delays, prior to the start of the project, please contact the APCD Engineering Division at (805) 781-5912 for specific information regarding permitting requirements.

• **SPECIAL CONDITIONS**

Naturally Occurring Asbestos

If the project site is located in a candidate area for Naturally Occurring Asbestos (NOA), which has been identified as a toxic air contaminant by the California Air Resources Board (ARB) the following requirements apply. Under the ARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, prior to any construction activities at the site, the project proponent shall ensure that a geologic evaluation is conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the APCD. If NOA is found at the site the applicant must comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the APCD. Please refer to the APCD web page at <http://www.slocleanair.org/business/asbestos.asp> for more information or contact the APCD Enforcement Division at (805) 781-5912.

Demolition of Asbestos Containing Materials

Demolition activities can have potential negative air quality impacts, including issues surrounding proper handling, demolition, and disposal of asbestos containing material (ACM). Asbestos containing materials could be encountered during demolition or remodeling of existing buildings. Asbestos can also be found in utility pipes/pipelines (transite pipes or insulation on pipes). If utility pipelines are scheduled for removal or relocation; or building(s) are removed or renovated this project may be subject to various regulatory jurisdictions, including the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M - asbestos NESHAP). These requirements include but are not limited to: 1) notification requirements to the APCD, 2) asbestos survey conducted by a Certified Asbestos Inspector, and, 3) applicable removal and disposal requirements of identified ACM. Please contact the APCD Enforcement Division at (805) 781-5912 for further information.

Lead During Demolition

Demolition of structures coated with lead based paint is a concern for the APCD. Improper demolition can result in the release of lead containing particles from the site. Sandblasting or removal of paint by heating with a heat gun can result in significant emissions of lead. Therefore, proper abatement of lead before demolition of these structures must be performed in order to prevent the release of lead from the site. Depending on removal method, an APCD permit may be required. Contact the APCD Engineering Division at (805) 781-5912 for more information. Approval of a lead work plan by the APCD is required and must be submitted ten days prior to the start of the demolition. Contact the APCD Enforcement Division at (805) 781-5912 for more information. For additional information regarding lead removal, please contact Cal-OSHA at (805) 654-4581.

**4.6 Qualified GHG Plan Level Guidance**

This guidance is intended to assist local governments in developing community scale Climate Action Plans. In drafting this guidance, the San Luis Obispo County Air Pollution Control District (APCD) has drawn from established methodologies and practices, rather than creating new protocols or quantification methods. This guidance should be interpreted as recommended approaches rather than a formal protocol. This guidance will be continually updated as new tools, methodologies and protocols are developed and refined.

Any Climate Action Plan (CAP) that aims to support tiering of future development projects for purposes of CEQA review of GHG impacts must include these standard elements.

- a. A community-wide GHG emissions inventory and "business-as-usual" forecast of year 2020 community-wide GHG emissions;
- b. GHG reduction targets consistent with AB 32;
- c. An analysis of local and state policies and actions that may impact GHG emissions within the jurisdiction;
- d. Quantification of GHG reduction measures demonstrating that, if fully implemented, the GHG reduction targets will be met;
- e. An implementation and monitoring strategy and timeline;
- f. An adequate environmental review of the proposed CAP.

Early consultation with APCD staff is essential; the importance of communicating with District staff early in the climate planning process cannot be overemphasized. District staff is available to meet with local government planners, review methodologies, discuss approaches and any other issues throughout the process of preparing the CAP.

An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project; if those requirements are not otherwise binding and enforceable, they must be incorporated as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable, notwithstanding its compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project.

**Qualitative Requirements for Qualified GHG Reduction Strategies**

***1) The GHG emissions inventory should be complete and comprehensive***

Any GHG emissions source addressed in this guidance should be included in the GHG inventory and forecast for the local CAP. If an emissions source is not included (for example, direct access electricity use or wastewater treatment), it should be clearly explained why that source was omitted. District staff will review this explanation as part of the evaluation of the CAP.

***2) Calculations and assumptions should be transparent***

It is important to emphasize that all methodologies and assumptions should be documented and explained within the CAP document.

***3) GHG reduction strategies should rely primarily on mandatory measures***

To date, most CAPs have emphasized voluntary GHG reduction measures over mandatory measures, indicated with language like "should promote," and "will encourage," etc. However, because implementation of voluntary measures cannot be guaranteed, their contribution to meeting the GHG reduction target is more speculative than that of mandatory measures. Problems that may result from over-reliance on voluntary measures include the following:

- It could be very difficult for local jurisdictions to demonstrate that GHG reduction targets are being met through voluntary measures.
- This, in turn, will make it difficult for a local government to determine if a project is complying with the adopted CAP in order to appropriately tier off of the CAP CEQA document.
- If the local government cannot document that its CAP is on track to achieve the GHG reduction



target, then the CAP may cease to comply with the "qualified" criteria. In this case subsequent projects would not be eligible to benefit from the tiering provisions of CEQA.

If voluntary measures are included in the CAP, distinctions should be drawn between those that are more or less likely to result in full implementation. For example, incentive-based programs (like AB 811 programs) are usually more likely to achieve results than outreach-based programs. Some CAPs have taken a cautious approach and have not quantified GHG reductions from the latter type of measure, due to their highly speculative nature. The APCD recommends only mandatory measures and strong voluntary measures (such as incentive-based programs) be quantified as contributing toward the GHG reduction target.

4) ***Build in a margin of safety***

Once the CAP enters the implementation phase it is possible that unforeseen issues or obstacles may arise that prevent full implementation of all CAP measures, or the emission reductions achieved for some measures may be less than anticipated. These risks may be heightened by unforeseen economic or political developments that adversely affect implementation of the measures. Therefore, APCD recommends the CAP build in a margin of safety to ensure it can continue to serve as a defensible "Qualified GHG Reduction Strategy." This can be accomplished by:

- Including more GHG mitigation measures than needed to meet the GHG reduction target, thus creating a "buffer" against lower than anticipated results;
- Emphasizing mandatory over voluntary measures;
- Including contingency measures (with quantified emission reduction estimates) that can be activated to fill any gap needed to maintain the expected rate of progress toward achieving the emissions reduction target.

5) ***Measures should address existing as well as new development***

The AB 32 target of reducing GHG emissions to 1990 levels by 2020 represents an initial step toward achieving the longer term goal of Executive Order S-3-05, which calls for reducing GHG emissions to 80% below 1990 levels by 2050; this equates to less than 2 metric tons of GHGs per capita. Reducing GHG emissions from new development alone cannot provide sufficient GHG reductions to achieve this long-term target. Therefore, climate action plans should address energy use and emissions from existing development as well. In its review of climate action plans, the APCD recommends aggressive and innovative strategies to achieve emission reductions from existing as well as new development.

6) ***Implementation and monitoring should be clearly defined***

The parameters for determining if the CAP is being fully implemented, and if development projects are consistent with the CAP, must be clearly laid out. If a local government plans to tier future projects off the environmental review performed on a CAP, the monitoring program should include the following elements:

- *Annual tracking/reporting on implementation of all CAP measures, including measures that address existing development.* The phasing-in of mitigation measures should be addressed (i.e. — have all the measures that were to have been adopted or expanded in the past year actually been adopted/expanded?).
- *Annual reporting of how new development projects have been implementing CAP measures.* Tracking individual project attributes and implementation of mitigation measures should be done on a project-by-project basis. This can be facilitated through the use of a compliance checklist for new development projects to demonstrate consistency with the plan (listing all mandatory and voluntary measures that apply to new development) and whether the project is implementing the measures; the District will request a copy of this checklist (or similar documentation) when reviewing projects for CEQA.
- *Annual review of the State's implementation of measures included in the CAP.* Are state-level policies achieving the reductions anticipated?
- *Periodic update of the GHG inventory.* The APCD recommends updating the community-wide GHG inventory at least once every 5 years. However, updating the inventory on a more

frequent basis may improve the ability to monitor progress toward achieving the GHG reduction target in the CAP.

- *Analysis of whether the CAP is still a "qualified" plan for CEQA purposes.* The analysis should be based on level of implementation and effectiveness of measures.



4.7 Employees per 1000 sf, Based on Land Use

Table 4-3: Employees Based on Land Use

LAND USE	Employees per 1000sf
Automobile Care Center	2.47
Bank (w/drive-through)	1.59
City Park	0.23
Convenience Market w/gas pumps	2.50
Day-Care Center	1.01
Elementary School	0.55
Fast Food Restaurant w/drive-thru	6.22
Fast Food Restaurant w/o drive-thru	1.74
Gasoline/Service Station	2.22
General Light Industry	1.54
General Office Building	2.52
Golf Course	2.96
Government Office Building	3.63
Hardware/Paint Store	1.56
Health Club	2.47
High Turnover (Sit Down Restaurant)	1.97
Hospital	1.07
Hotel	0.64
Library	0.39
Medical Office Building	3.33
Motel	0.95
Place of Worship	0.80
Quality Restaurant	1.19
Refrigerated Warehouse-No Rail	0.66
Regional Shopping Center	1.39
Strip Mall	2.39
Unrefrigerated Warehouse-No Rail	0.84
Employees Per 1000sf developed from the historical trend analysis based on historical permit data from SLOCOG for the years 2001 to 2010	

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EXHIBIT 4



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**EXHIBIT B**



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EXHIBIT 5

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OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT

## Air Toxics Hot Spots Program

Risk Assessment Guidelines

Guidance Manual for  
Preparation of Health Risk  
Assessments

February 2015



Air, Community, and Environmental Research Branch  
Office of Environmental Health Hazard Assessment  
California Environmental Protection Agency



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**Air Toxics Hot Spots Program  
Risk Assessment Guidelines**

**The Air Toxics Hot Spots Program Guidance Manual  
for Preparation of Health Risk Assessments**

Office of Environmental Health Hazard Assessment  
California Environmental Protection Agency  
George V. Alexeeff, Ph.D., Director

i



O-MBA20L7

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## Preface

The draft of the *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (Guidance Manual) is a description of the algorithms, recommended exposure variates, cancer and noncancer health values, and the air modeling protocols needed to perform a health risk assessment (HRA) under the Air Toxics Hot Spots Information and Assessment Act of 1987(Health and Safety Code Section 44300 et seq., see Appendix B). The Children's Environmental Health Protection Act of 1999 (Health and Safety Code Section 39606, also contained in Appendix B), which requires explicit consideration of infants and children in assessing risks from air toxics, necessitated revisions of the methods for both noncancer and cancer risk assessment, and of the exposure variates. This draft version of the Guidance Manual updates the previous version (OEHHA, 2003), and reflects advances in the field of risk assessment along with explicit consideration of infants and children.

The information presented in the draft manual is compiled from three technical support documents (TSDs) released by the Office of Environmental Health Hazard Assessment (OEHHA) for the Hot Spots Program. The three TSDs (which are also revised versions, replacing the original four Hot Spots TSDs adopted between 1999 and 2003) underwent public comment and peer review and were adopted for use in the Air Toxics Hot Spots program by the Director of OEHHA. The Technical Support Document for the Derivation of Noncancer Reference Exposure Levels (June, 2008) addressed the methodology for deriving acute, chronic and eight hour Reference Exposure Levels. The Technical Support Document for Cancer Potency Factors (May 2009) addresses the methodology for deriving cancer potency factors and adjusting cancer potency to account for the increased sensitivity of early-in-life exposure to carcinogens. The Technical Support Document for Exposure Assessment and Stochastic Analysis (June 2012) presents the exposure model for the Hot Spots program and reviews the available literature on exposure and relevant fate and transport variates. All three TSDs are available on OEHHA's web site at: [http://www.oehha.ca.gov/air/hot\\_spots/index.html](http://www.oehha.ca.gov/air/hot_spots/index.html). Excerpts of these three TSDs are presented in this document. There is relatively little new information in the Guidance Manual since the adoption of the TSDs.

The draft Guidance Manual was released for public review. Public comments were received and changes were made in response to some comments. Responses were developed to all public comments. Both the Guidance Manual and OEHHA's response to comments were then reviewed by the State's Scientific Review Panel on Toxic Air Contaminants (SRP), who previously reviewed the three TSDs upon which this guidance is based. Following review by the SRP, OEHHA finalized this Guidance Manual. This Guidance Manual supersedes the risk assessment methods presented in the Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2003), which in turn replaced earlier guidance provided by the California Air Pollution Control Officer's Association (CAPCOA, 1993). This manual updates health effects values, exposure pathway variates (e.g., breathing rates), and



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continues to use a tiered approach for performing HRAs based on current science and policy assessment. The Technical Support Document for Cancer Potency Factors (OEHHA, 2009) recommends a tenfold early-in-life potency factor adjustment for the third trimester and ages zero to less than two, and a threefold adjustment factor for ages two to less than sixteen. In addition, we recommend evaluating residency periods of nine, thirty and seventy years. This means that exposure variates are needed for the third trimester, ages zero to less than two, ages two to less than nine, ages two to less than 16, ages 16 to less than 30, and ages 16 to 70.

The tiered approach presented in this draft manual provides a risk assessor with flexibility and allows consideration of site-specific differences. Furthermore, risk assessors can tailor the level of effort and refinement of an HRA by using the point-estimate exposure variates or the stochastic treatment of distributions of exposure variates. The four-tiered approach to risk assessment primarily applies to residential cancer risk assessment. Compared to the OEHHA 2003 document, the exposure pathways in the Guidance Manual remain the same. The exposure and risk algorithms are similar, but they have been revised to accept new data or variables that are used in the tiered risk assessment approach.

The draft manual also contains example calculations and an outline for a modeling protocol and an HRA report. A software program, the Hot Spots Analysis and Reporting Program (HARP), has been developed by the Air Resources Board in consultation with OEHHA and Air Pollution Control/Air Quality Management District representatives. The HARP software, which is being updated with the new exposure variates and health values, is the recommended model for calculating and presenting HRA results for the Hot Spots Program. Information on obtaining the HARP software can be found on the ARB's web site at [www.arb.ca.gov](http://www.arb.ca.gov) under the Hot Spots Program.

The intent of the Guidance Manual and the HARP software is to incorporate children's health concerns, update risk assessment practices, and to provide consistent risk assessment procedures. The use of consistent risk assessment methods and report presentation has many benefits, such as expediting the preparation and review of HRAs, minimizing revision and resubmission of HRAs, allowing a format for facility comparisons, and cost-effective implementation of HRAs and the Hot Spots Program. Risk assessments prepared with this Guidance Manual may be used for permitting new or modified stationary sources, or public notification, and risk reduction requirements of the Hot Spots Program. The use of uniform procedures allows comparison of risks from different facilities and enables identification of facilities that are problematic from a public health perspective. OEHHA reviews the HRAs to insure they are adequate for decision making, but does not play a role in permitting decisions that may result from the HRAs. OEHHA will provide advice to the Districts when requested on any of the risk assessment methods or health values they have used.

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#### References

CAPCOA, 1993. CAPCOA Air Toxics Hot Spots Program Revised 1992 Risk Assessment Guidelines. California Air Pollution Control Officers Association, October 1993.

OEHHA, 2003. Air Toxics Hot Spots Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.

OEHHA, 2008. Air Toxics Hot Spots Risk Assessment Guidelines Technical Support Document for the Derivation of Noncancer Reference Exposure Levels. Available online at: <http://www.oehha.ca.gov>

OEHHA, 2009. Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures. May 2009. Available online at: <http://www.oehha.ca.gov>

OEHHA, 2012. Air Toxics Hot Spots Program Risk Assessment Guidelines; Technical Support Document for Exposure Assessment and Stochastic Analysis. Available online at <http://www.oehha.ca.gov>



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## 1 - Introduction

### 1.1 Development of Guidelines

The Air Toxics Hot Spots Information and Assessment Act is designed to provide information to state and local agencies and to the general public on the extent of airborne emissions from stationary sources and the potential public health impacts of those emissions. The Hot Spots Act requires that the Office of Environmental Health Hazard Assessment (OEHHA) develop risk assessment guidelines for the Hot Spots program (Health and Safety Code (HSC) Section 44360(b)(2)) (see Appendix B for the text of the HSC). In addition, the Hot Spots Act specifically requires OEHHA to develop a "likelihood of risks" approach to health risk assessment. In response, OEHHA developed a tiered approach to risk assessment where a point estimate approach is first employed. If a more detailed analysis is needed, OEHHA has developed a stochastic, or probabilistic, approach using exposure factor distributions that can be applied in a stochastic estimate of the exposure. A detailed presentation of the tiered approach, risk assessment algorithms, selected exposure variates (e.g., breathing rate), and distributions with a literature review is presented in the *Air Toxics Hot Spots Program Risk Assessment Guidelines; Technical Support Document for Exposure Assessment and Stochastic Analysis* (OEHHA, 2012). A summary of this information can be found in Chapter 5 of this document.

The Technical Support Document for the Derivation of Noncancer Reference Exposure Levels (OEHHA, 2008) addresses dose response relationships for noncancer health effects and the methodology for deriving acute, chronic and 8-hour Reference Exposure Levels (RELs). Currently there are 53 acute RELs, 82 chronic RELs, and 10 eight-hour RELs. Review and revision of RELs to take into account new information and sensitive subpopulations including infants and children is an ongoing process. All draft RELs for individual chemicals revised under the current noncancer methodology will undergo public comment and peer review, as mandated by the Hot Spots Act. The Technical Support Document for Cancer Potency Factors (OEHHA, 2009) addresses the methodology for deriving cancer potency factors and adjusting cancer potency to account for the increased sensitivity to early-in-life exposure to carcinogens. This document contains inhalation cancer potency factors and oral cancer potency factors for 142 toxicants and toxicant compound classes developed by OEHHA or developed by other authoritative bodies and endorsed by OEHHA. The OEHHA website ([www.oehha.ca.gov](http://www.oehha.ca.gov)) should be consulted for the most current adopted chronic, acute and 8-hour RELs and cancer potency factors. In addition, for a small subset of these substances that are subject to airborne deposition and hence human oral and dermal exposure, oral chronic RELs and oral cancer potency factors have been developed by OEHHA. A summary of cancer and noncancer health effects values can be found in Appendix L and Chapters 6 and 7 of the Guidance Manual. All three Technical Support Documents have undergone public and peer review and have been approved by the state's Scientific Review Panel on Toxic Air Contaminants and adopted by OEHHA. The Guidance Manual is undergoing the same public and peer review process.

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The Guidance Manual contains a description of the algorithms, recommended exposure variates, and cancer and noncancer health values, and modeling protocols needed to perform a Hot Spots risk assessment under the Hot Spots Act (see Appendix B). The information for the Guidance Manual is taken from the three TSDs. The Guidance Manual supersedes the risk assessment methods presented in the Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2003).

The Guidance Manual is intended to address health risks from airborne contaminants released by stationary sources. Some of the methodology used is common to other regulatory risk assessment applications, particularly for California programs. However, if the reader needs to prepare a Health Risk Assessment (HRA) under another program, the HRA may need additional analyses. Therefore, appropriate California and federal agencies should be contacted. For example, if a facility must comply with HRA requirements under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the California Department of Toxic Substances Control (DTSC) must be contacted to determine if an HRA written to comply with AB 2588 will also satisfy RCRA/CERCLA requirements.

### 1.2 Use of the Guidance Manual

The intent in developing this Guidance Manual is to provide HRA procedures for use in the Air Toxics Hot Spots Program or for the permitting of existing, new, or modified stationary sources. The Air Resources Board (ARB) website ([www.arb.ca.gov](http://www.arb.ca.gov)) provides more information on the Hot Spots Program and risk management guidelines, including recommendations for permitting existing, new, or modified stationary sources. The use of consistent risk assessment procedures and report presentation allows comparison of one facility to another, expedites the review of HRAs by reviewing agencies, and minimizes revision and resubmission of HRAs.

OEHHA recognizes that no one risk assessment procedure or set of exposure variates could perfectly address the many types of stationary facilities in diverse locations in California. Therefore a tiered risk assessment approach was developed to provide flexibility and allow consideration of site-specific differences. The tiered approach to risk assessment is discussed in detail in Chapter 8 of this Guidance.

These guidelines should be used in conjunction with the emission data collected and reported pursuant to requirements of the ARB's *Emission Inventory Criteria and Guidelines Regulations* (Title 17, California Code of Regulations, Sections 93300-93300.5), and the *Emission Inventory Criteria and Guidelines Report for the Air Toxics "Hot Spots" Program* (EICG Report), which is incorporated by reference therein (see ARB's web site: <http://www.arb.ca.gov/ab2588/2588guid.htm> for the most current version, which was approved on August 27, 2007). This regulation outlines requirements for the collection of emission data, based on an inventory plan, which must be approved by the Air Pollution Control or Air Quality Management District (District). The emissions reported under this program are routine or predictable and include continuous

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and intermittent releases and predictable process upsets or leaks. Emissions for unpredictable releases (e.g., accidental catastrophic releases) are not reported under this program.

For landfill sites, these guidelines should be applied to the results of the landfill testing required under Health and Safety Code Section 41805.5 as well as to any emissions reported under the emission inventory requirements of the Air Toxics Hot Spots Act (e.g., from flares or other on-site equipment). Districts should be consulted to determine the specific landfill testing data to be used.

#### 1.3 Who is Required to Conduct a Risk Assessment

The Hot Spots Act requires that each local Air Pollution Control District or Air Quality Management District (hereinafter referred to as District) determine which facilities will prepare an HRA. As defined under the Hot Spots Act, an HRA includes a comprehensive analysis of the dispersion of hazardous substances in the environment, their potential for human exposure, and a quantitative assessment of both individual and population-wide health risks associated with those levels of exposure.

Districts are to determine which facilities will prepare an HRA based on a prioritization process outlined in the law. The process by which Districts identify priority facilities for risk assessment involves consideration of potency, toxicity, quantity of emissions, and proximity to sensitive receptors such as hospitals, daycare centers, schools, work-sites, and residences. The District may also consider other factors that may contribute to an increased potential for significant risk to human receptors. As part of this process Districts categorize facilities as high, intermediate, or low priority. The District prioritization process is described in the *CAPCOA Air Toxics Hot Spots Program Facility Prioritization Guidelines, July 1990* (CAPCOA, 1990), although some Districts may have adopted their own method for prioritizing facilities for the purposes of AB2588, permitting, etc. Consult the District for updates to the Prioritization Guidelines. See the Hot Spots Program on ARB's web site at [www.arb.ca.gov](http://www.arb.ca.gov) for more information on facility prioritization procedures.

Facilities designated by a District as "high priority" are required to submit an HRA to the District within 150 days of designation. Districts may grant a 30-day extension. However, a District may require any facility to prepare and submit an HRA according to the District priorities established for purposes of the Hot Spots Act.

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#### 1.4 The Hot Spots Analysis and Reporting Program (HARP) Software

The ARB and the Districts have identified a critical need for software to assist with the programmatic aspects of the Hot Spots Program. HARP is computer software used by the ARB, OEHHA, Districts, and facility operators to promote statewide consistency, efficiency, and cost-effective implementation of HRAs and the Hot Spots Program. The HARP software package includes: 1) an Emissions Inventory Database Module, 2) an Air Dispersion Modeling Module, and 3) a Risk Analysis Module. The user-friendly Windows-based package provides for:

1. Electronic implementation of the risk assessment methods presented in the OEHHA guidelines (Guidance Manual);
2. Electronic data transfer from facilities and Districts;
3. The production of reports;
4. Facility prioritization;
5. Air dispersion modeling (AERMOD) of multiple emission releases or facilities for cumulative impact evaluations;
6. A summary report of acute, 8-hour, and chronic health hazard quotients or indices, and cancer risk at the point of maximum impact (PMI), maximally exposed individual resident (MEIR), maximally exposed individual worker (MEIW) and other receptors to be evaluated as needed;
7. Mapping displays of facility property boundaries, risk isopleths, and elevation contours;
8. The ability to display combined risk contours from multiple emission sources;
9. Output of data for use in other "off-the-shelf" Geographic Information Systems (GIS) programs for additional types of analysis; and
10. Census data for determining population-related health impacts showing the number of people exposed at various cancer risk levels and cancer burden.

#### 1.5 Risk Assessment Review Process

The Hot Spots Act risk assessments are reviewed by the local District and by OEHHA. The Districts focus their review on the emissions data and the air dispersion modeling. OEHHA provides comments on the HRA's general concordance with the Guidelines Manual and the completeness of the reported health risks. The District, taking into account the comments of OEHHA, approves the HRA or returns it to the facility for revision and resubmission. If the HRA is not revised and resubmitted by the facility within 60 days, the District may modify the HRA and approve it as modified. Based on the approved HRA, the District determines if there is a significant health risk associated with emissions from the facility. If the District determines that facility emissions pose a significant health risk, the facility operator provides notice to all exposed individuals regarding the results of the HRA and may be required to take steps to reduce emissions by implementing a risk reduction audit and plan. Notification is to be made according to

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procedures specified by the District. Each District determines its own levels of significance for cancer and noncancer health effects for notification and risk reduction. See the Hot Spots Program on ARB's web site at [www.arb.ca.gov](http://www.arb.ca.gov) for more information on significance levels selected by each District.

#### 1.6 Uncertainty in Risk Assessment

OEHHA has striven to use the best science available in developing these risk assessment guidelines. However, there is a great deal of uncertainty associated with the process of risk assessment. The uncertainty arises from lack of data in many areas necessitating the use of assumptions. The assumptions used in these guidelines are designed to err on the side of health protection in order to avoid underestimation of risk to the public. Sources of uncertainty, which may overestimate or underestimate risk, include: 1) extrapolation of toxicity data in animals to humans, 2) uncertainty in the estimation of emissions, 3) uncertainty in the air dispersion models, and 4) uncertainty in the exposure estimates. In addition to uncertainty, there is a natural range or variability in measured parameters defining the exposure scenario. Scientific studies with representative sampling and large enough sample sizes can characterize this variability. In the specific context of a Hot Spots risk assessment, the source of variability with the greatest quantitative impact is variation among the human population in such properties as height, weight, food consumption, breathing rates, and susceptibility to chemical toxicants. OEHHA captures at least some of the variability in exposure by developing data driven distributions of intake rates, where feasible, in the TSD for Exposure Assessment (OEHHA, 2012).

Interactive effects of exposure to more than one carcinogen or toxicant are addressed in the risk assessment with default assumptions of additivity. Cancer risks from all carcinogens addressed in the HRA are added. Similarly, non-cancer hazard quotients for substances impacting the same target organ/system are added to determine the hazard index (HI). Although such effects of multiple chemicals are assumed to be additive by default, several examples of synergism (interactive effects greater than additive) are known. For substances that act synergistically, the HRA could underestimate the risks. Some substances may have antagonistic effects (lessen the toxic effects produced by another substance). For substances that act antagonistically, the HRA could overestimate the risks.

Other sources of uncertainty, which may underestimate or overestimate risk, can be found in exposure estimates where little or no data are available (e.g., soil half-life and dermal penetration of some substances from a soil matrix).

The differences among species and within human populations usually cannot be easily quantified and incorporated into risk assessments. Factors including metabolism, target site sensitivity, diet, immunological responses, and genetics may influence the response to toxicants. The human population is much more diverse both genetically and culturally (e.g., lifestyle, diet) than inbred experimental animals. The intraspecies variability among humans is expected to be much greater than in laboratory animals.

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In most cases, cancer potency values have been estimated only for the single most affected tumor site. This represents a source of uncertainty in the cancer risk assessment. Adjustment for tumors at multiple sites induced by some carcinogens may result in a higher potency. Some recent assessments of carcinogens include such adjustments. Other uncertainties arise 1) in the assumptions underlying the dose-response model used, and 2) in extrapolating from large experimental doses, where other toxic effects may compromise the assessment of carcinogenic potential, to usually much smaller environmental doses.

When occupational epidemiological data are used to generate a carcinogenic potency or a health protective level for a non-carcinogen, less uncertainty is involved in the extrapolation from workplace exposures to environmental exposures. When using human data, no interspecies extrapolation is necessary eliminating a significant source of uncertainty. However, children are a subpopulation with hematological, nervous, endocrine, and immune systems that are still developing and may be more sensitive to the effects of toxicants. The worker population and risk estimates based on occupational epidemiological data are more uncertain for children than adults. Current risk assessment guidelines include procedures designed to address the possibly greater sensitivity of infants and children, but there are only a few compounds for which these effects have actually been measured experimentally. In most cases, the adjustment relies on default assumptions which may either underestimate or overestimate the true risks faced by infants and children exposed to toxic substances or carcinogens.

Risk estimates generated by an HRA should not be interpreted as the expected rates of disease in the exposed population but rather as estimates of potential for disease, based on current knowledge and a number of assumptions.

In the Hot Spots program, cancer risk is often expressed as the maximum number of new cases of cancer projected to occur in a population of one million people due to exposure to the cancer-causing substance over a 30-year residential period. However, there is uncertainty associated with the cancer risk estimate. An individual's risk of contracting cancer from exposure to facility emissions may be less or more than the risk calculated in the risk assessment. An individual's risk not only depends on the individual's exposure to a specific chemical but also on his or her genetic background, health, diet, lifestyle choices and other environmental and workplace exposures. OEHHA uses health-protective exposure assumptions to avoid underestimating risk. For example, the risk estimate for airborne exposure to chemical emissions uses the health-protective assumption that the individual has a high breathing rate and exposure began early in life when cancer risk is highest.

A Reference Exposure Level (REL) is the concentration level at or below which no adverse non-cancer health effects are anticipated for the specified exposure duration. RELs are based on the most sensitive, relevant, adverse health effect reported in the medical and toxicological literature. RELs are designed to protect the most sensitive individuals in the population by the inclusion of factors that account for uncertainties as well as individual differences in human susceptibility to chemical exposures. The factors used in the calculation of RELs are meant to err on the side of public health.

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protection in order to avoid underestimation of non-cancer hazards. Exceeding the REL does not automatically indicate an adverse health impact. However, increasing concentrations above the REL value increases the likelihood that the health effect will occur.

Risk assessments under the Hot Spots program are often used to compare one source with another and to prioritize concerns. Consistent approaches to risk assessment are necessary to fulfill this function.

**1.7 Tiered Approach to Risk Assessment**

OEHHA developed a tiered approach to accommodate consideration of site-specific data that may be more appropriate for a given facility than the default variate. The first tier is the simplest point estimate approach to estimating exposure to facility emissions. Tier 1 is the first step in conducting a comprehensive risk assessment using algorithms and point estimates of input values described in the *Technical Support Document for Exposure Assessment and Stochastic Analysis*. (OEHHA, 2012) Each facility conducts a Tier 1 risk assessment to promote consistency across the state in facility risk assessments and facilitate comparisons across facilities. To be health-protective, high-end estimates for the key intake exposure variates are used for the dominant exposure pathways.

Tier 2 allows use of site-specific point estimates of exposure variates as long as these estimates can be justified. For example, if there are data indicating that consumption of fish from an impacted body of water is lower than the OEHHA-recommended fish consumption rate, then the facility can use that data to generate a point estimate for sport-fish consumption from that body of water. The risk assessor must supply the data and methods used for the site-specific estimates, and the site-specific estimates must be reproducible and approved by both the District and OEHHA.

Tier 3 risk assessment involves stochastic analysis of exposure using data-based distributions for the key exposure variates compiled in the OEHHA (2012) *Technical Support Document*. Since a stochastic approach to risk assessment provides more information about the range of risk estimates based on the range of exposures, Tier 3 can serve as a useful supplement to the Tier 1 and 2 approaches. Variance propagation methods (e.g., Monte Carlo analysis) are used to derive a range of cancer risk estimates reflecting the known variability in the inputs. Finally, a Tier 4 approach would use distributions of exposure variates that may be more appropriate for a site, such as the distribution of fish consumption rates for a specific body of water impacted by a facility. As in a Tier 2 approach, the risk assessment must supply the data and methods used for the site-specific distributions for exposure variates, and the site-specific estimates must be justified to and reproducible by the Districts and OEHHA.

**1.8 References**

CAPCOA, 1990. *CAPCOA Air Toxics Hot Spots Program Facility Prioritization Guidelines*. California Air Pollution Control Officers Association, July 1990.

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OEHHA, 2003. Air Toxics Hot Spots Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.

OEHHA, 2008. Air Toxics Hot Spots Risk Assessment Guidelines Technical Support Document for the Derivation of Noncancer Reference Exposure Levels. Available online at: <http://www.oehha.ca.gov>

OEHHA, 2009. Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures. May 2009. Available online at: <http://www.oehha.ca.gov>

OEHHA, 2012. Air Toxics Hot Spots Program Risk Assessment Guidelines; Technical Support Document for Exposure Assessment and Stochastic Analysis. Available online at <http://www.oehha.ca.gov>

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## 2 - Overview of Health Risk Assessment

### 2.1 The Model for Risk Assessment

The standard approach currently used for health risk assessment (HRA) was originally proposed by the National Academy of Sciences in the 1983 book: *Risk Assessment in the Federal Government: Managing the Process* (NAS, 1983) and was updated in the Academy's 1994 book: *Science and Judgment in Risk Assessment* (NAS, 1994). In 2009 the National Academy published *Science and Decisions: Advancing Risk Assessment* (NAS, 2009), in which a number of recommendations are made on improving the risk assessment process and expanding it to include community concerns and cumulative risks. The four steps involved in the risk assessment process are 1) hazard identification, 2) exposure assessment, 3) dose-response assessment, and 4) risk characterization. These four steps are briefly discussed below.

### 2.2 Hazard Identification

For air toxics sources, hazard identification involves the pollutant(s) of concern emitted by a facility, and the types of adverse health effects associated with exposure to the chemical(s), including whether a pollutant is a potential human carcinogen or is associated with other types of adverse health effects. For the Air Toxics Hot Spots Program (Hot Spots), the emitted substances that are addressed in a risk assessment are found in the list of substances designated in the ARB's *Emission Inventory Criteria and Guidelines Regulations (Title 17, California Code of Regulations, Sections 93300-93300.5)*, and the *Emission Inventory Criteria and Guidelines Report* (EICG Report), which is incorporated by reference therein (ARB, 2007). This list of substances is contained in Appendix A of this document and the EICG Report. The list of substances also identifies those substances that are considered human carcinogens or potential human carcinogens.

### 2.3 Exposure Assessment

The purpose of the exposure assessment is to estimate the extent of public exposure to emitted substances. For the Hot spots program, in practice this means estimating exposures for those emitted substances for which potential cancer risk or noncancer health hazards for acute, repeated 8-hour, and chronic exposures will be evaluated. This involves emission quantification, modeling of environmental transport, evaluation of environmental fate, identification of exposure routes, identification of exposed populations, and estimation of short-term (e.g., 1-hour maximum), 8-hour average, and long-term (annual) exposure levels. These activities are described in Chapters 4 and 5. Chapter 5 also discusses the tiered approach to risk assessment.

The ARB's Emission Inventory Criteria and Guidelines (EICG) Report provides assistance in determining those substances that must be evaluated in an HRA and the reporting requirements of facilities, while the Hot Spots Analysis and Reporting Program (HARP) software can be used to model ground level concentrations at specific off-site

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locations resulting from facility emissions. The United States Environmental Protection Agency (U.S. EPA) has adopted the AERMOD air dispersion model into its list of regulatory approved models, in place of the previously used ISCST3 model. AERMOD is a steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain (U.S. EPA, 2009). The Air Resources Board recommends AERMOD for Hot Spots risk assessments. The AERMOD air modeling software will be incorporated into the HARP software, which allows the user to input all dispersion parameters directly into the program to generate air dispersion data. Alternatively, the air dispersion data may be generated separately from HARP using other air dispersion models, and then imported into HARP to generate risk estimates. Data imported into HARP must already be in the format required by HARP. HARP has the flexibility to generate a summary of the risk data necessary for an HRA by either of the above approaches.

Most of the toxicants assessed under the Hot Spots program are volatile organic compounds that remain as gases when emitted into the air. These chemicals are not subject to appreciable deposition to soil, surface waters, or plants. Therefore, human exposure via ingestion or dermal exposure, at least at concentrations typically encountered in the ambient air, is not considered for volatile organic compounds in the Hot Spots risk assessments. While some models indicate potential for dermal exposure to certain volatile organic compounds, at this time, the Hot spots program does not consider this pathway. Significant exposure to volatile organic toxicants emitted into the air occurs through the inhalation pathway, and this pathway is the primary consideration in the Hot Spots risk assessments. A small subset of Hot Spots substances consists of semi-volatile organic and metal toxicants emitted partially or totally as particles subject to deposition. Ingestion and dermal pathways as well as the inhalation pathway must be evaluated for these chemicals. A few of these semi-volatile organic and metal toxicants must also include the breast milk ingestion pathway. Additional ingestion pathways may also need to be evaluated depending on the pathways of exposure for the specific receptor of interest. Table 5.1 in Chapter 5, Table 6.4 in Chapter 6, and Table 7.1 in Chapter 7 list the substances that must be evaluated for multipathway impacts. HARP is designed to assess potential health impacts posed by substances that must be analyzed by a multipathway approach.

### 2.4 Dose-Response Assessment

Dose-response assessment is the process of characterizing the relationship between exposure to an agent and incidence of an adverse health effect in exposed populations. In quantitative carcinogenic risk assessment, the dose-response relationship is expressed in terms of a potency slope that is used to calculate the probability or risk of cancer associated with an estimated exposure. Cancer potency factors are expressed as the 95<sup>th</sup> percent upper confidence limit of the slope of the dose response curve estimated assuming continuous lifetime exposure to a substance. Typically, potency factors are expressed as units of inverse dose (e.g., (mg/kg BW/day)<sup>-1</sup>) or inverse concentration (e.g., (µg/m<sup>3</sup>)<sup>-1</sup>). It is assumed in cancer risk assessments that risk is directly proportional to dose and that there is no threshold for carcinogenesis.

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The Office of Environmental Health Hazard Assessment (OEHHA) has compiled cancer potency factors, which should be used in risk assessments for the Hot Spots program, in Table 7.1. Cancer potency factors listed in Table 7.1 were derived either by the U.S. EPA or by OEHHA, underwent public and peer-review, and were adopted for use in the program. Chapter 8 describes procedures for use of potency values in estimating excess cancer risk. For a detailed description of cancer potency factors, refer to the *Technical Support Document for Cancer Potency Factors* (OEHHA, 2009).

For noncarcinogenic effects, dose-response data developed from animal or human studies are used to develop acute, 8-hour, and chronic noncancer Reference Exposure Levels (RELs). The acute, 8-hour and chronic RELs are defined as the concentration at which no adverse noncancer health effects are anticipated even in sensitive members of the general population, with infrequent one hour exposures, repeated 8-hour exposures over a significant fraction of a lifetime, or continuous exposure over a significant fraction of a lifetime, respectively. The most sensitive health effect is chosen to develop the REL if the chemical affects multiple organ systems. Unlike cancer health effects, noncancer health effects are generally assumed to have thresholds for adverse effects. In other words, injury from a pollutant will not occur until exposure to that pollutant has reached or exceeded a certain concentration (i.e., threshold) and/or dose. The acute, 8-hour, and chronic RELs are air concentrations intended to be below the threshold for health effects for the general population.

The actual threshold for health effects in the general population is generally not known with any precision. Uncertainty factors are applied to the Lowest Observed Adverse Effects Level (LOAEL) or No Observed Adverse Effects Level (NOAEL) or Benchmark Concentration values from animal or human studies to help ensure that the chronic, 8-hour and acute REL values are below the threshold for human health for nearly all individuals. This guidance manual provides the acute, 8-hour, and chronic Reference Exposure Levels in Tables 6.1 through 6.3. Some substances that pose a chronic or repeated 8-hour inhalation hazard may also present a chronic hazard via non-inhalation routes of exposure (e.g., ingestion of contaminated water, foods, or soils, and dermal absorption). The oral RELs for these substances are presented in Table 6.4. The methodology and derivations for acute, 8-hour, and chronic, RELs are described in the *Technical Support Document for the Derivation of Noncancer Reference Exposure Levels* (OEHHA, 2008).

### 2.5 Risk Characterization

This is the final step of risk assessment. In this step, modeled concentrations and exposure information, which are determined through exposure assessment, are combined with potency factors and RELs that are developed through dose-response assessment. The use of cancer potency factors to assess total cancer risk and the use of the hazard index approach for evaluating the potential for noncarcinogenic health effects are described in Chapter 8. Example calculations for determining (inhalation) cancer risk and noncancer acute, 8-hour, and chronic hazard quotients and hazard indices are presented in Appendix I. Chapter 9 provides an outline that specifies the content and recommended format of HRA results.

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Under the Hot Spots Act, health risk assessments are to quantify both individual and population-wide health impacts (Health and Safety Code, Section 44306) (Appendix B). The health risk assessments are facility specific and the calculated risk should be combined for all pollutants emitted by a single facility. For example, cancer risk from multiple carcinogens is considered additive. For exposures to multiple non-carcinogen pollutants, a hazard index approach is applied for air contaminants affecting the same organ system. All substances emitted by the facility that are on the Hot Spots Act list of substances must be identified in the HRA, including those on the list that do not have a potency value or REL.

For assessing risk, OEHHA has developed two methods for determining dose via inhalation, dermal absorption, and ingestion pathways. These two methods, the point estimate approach and the stochastic exposure assessment approach, are described below and in Chapters 5 and 8. Detailed presentations of these methods can be found in: *Technical Support Document for Exposure Assessment and Stochastic Analysis* (OEHHA, 2012).

#### 2.5.1 Point Estimate Approach

OEHHA provides information in this document on average and high-end values for key exposure pathways (e.g., breathing rate for the inhalation exposure pathway). The average and high-end of point estimates in this document are defined in terms of the probability distribution of values for that variate. The mean represents the average values for point estimates and the 95<sup>th</sup> percentiles represent the high-end point estimates from the distributions identified in OEHHA (2012). Thus, within the limitations of the data, average and high-end point estimates are supported by the distribution.

Tier 1 of the tiered approach to risk assessment, which is briefly discussed in Section 2.5.3 and presented in more detail in Chapter 8, utilizes a combination of the average and high-end point estimates to more realistically estimate exposure in multipathway risk assessments. This method uses high-end exposure estimates for the pathways that are the main drivers of exposure and the average point estimate for the other non-driving exposure pathways. This approach will lessen the issue of compounding high-end exposure estimates, while retaining a health-protective approach for the more important exposure pathways. It is unlikely that an individual receptor would be on the high-end of exposure for all exposure pathways. See Chapter 8 for detailed discussions of how this multipathway methodology is applied to cancer and noncancer calculations. The HARP software can perform this analysis (referred to as the derived approach in the HARP software).

In addition to using an estimate of average and high-end consumption rates, cancer risk evaluations at individual receptors are presented for 9, 30, and 70-year exposure durations. The 9 and 30-year durations correspond to the average and high-end of residency time recommended by U.S. EPA (1997). The California data presented in Appendix L of the Exposure TSD (OEHHA, 2012) are generally supportive of the nationwide data. The 9 and 70-year exposure durations present potential impacts over the range of residency periods, while the 30-year exposure duration is recommended

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for use as the basis for estimating cancer risk at the MEIR in all HRAs. Population-wide impacts should use the 70-year exposure duration.

The parameters used for all exposure durations assume exposure begins in the last trimester of pregnancy and progresses through the exposure duration of interest (e.g., 9, 30, or 70 years). These assumptions are thus protective of children. Children have higher intake rates on a per kilogram body weight basis (e.g., they breathe, drink and eat more per kg body weight than adults) and thus receive a higher dose from contaminated media. See Chapter 5 for the point estimates that can be used to estimate impacts for children. Chapters 5 and 8 discuss how to calculate cancer risk based on various exposure durations and point estimates. Appendix I contains an example calculation and Chapter 9 clarifies how to present the findings in an HRA.

#### 2.5.2 Stochastic Exposure Assessment

OEHHA was directed under the Air Toxics "Hot Spots" program (SB 1731, Calderon, stat. 1992; Health and Safety Code Section 44360(b)(2)) to develop a "likelihood of risk" approach to risk assessment. To satisfy this requirement, OEHHA developed a stochastic approach to risk assessment that utilizes distributions for exposure variates such as breathing rate and water consumption rate rather than a single point estimate. The variability in exposure can be propagated through the risk assessment model using the distributions as input and a Monte Carlo or similar method. The result of such an analysis is a range of risks that at least partially characterizes variability in exposure.

Distributions of key exposure variates that are presented in the *Technical Support Document for Exposure Assessment and Stochastic Analysis* (OEHHA, 2012) were taken from the literature, if adequate, or developed from raw data of original studies. Intake variates such as vegetable consumption are relatively data rich; for these variates reasonable probability distributions can be constructed. However, the data necessary to characterize the variability in risk assessment variates are not always available. For example, for the fate and transport variates (e.g., fish bioaccumulation factors), there are only a few measurements for a given chemical available which precludes the adequate characterization of a probability distribution. We only developed distributions for those key exposure variates that were adequately characterized by data. Development of distributions is described in detail in the *Technical Support Document for Exposure Assessment and Stochastic Analysis* (OEHHA, 2012).

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#### 2.5.3 Tiered Approach to Risk Assessment

OEHHA recommends using a tiered approach to risk assessment. Tier 1 is a standard point estimate approach using the recommended point estimates presented in this document. If site-specific information is available to modify some point estimates developed in the *Technical Support Document for Exposure Assessment and Stochastic Analysis* (OEHHA, 2012) and is more appropriate to use than the recommended point estimates in this document, then Tier 2 allows use of that site-specific information. Site-specific information should be presented to the District before being used. The District may contact OEHHA for additional advice. Note that all non-default variates need to be adequately justified to OEHHA and the Districts to be used. In Tier 3, a stochastic approach to exposure assessment is used with the data distributions developed in the TSD (OEHHA, 2012) and presented in this document. Tier 4 is also a stochastic approach but allows for utilization of site-specific distributions, if they are justifiable (to OEHHA and the Districts) and more appropriate for the site under evaluation than those recommended in this document. Persons preparing an HRA that has a Tier 2 through Tier 4 evaluation must also include the results of a Tier 1 evaluation. Tier 1 evaluations are required for all HRAs prepared for the Hot Spots Program to promote consistency across the state for all facility risk assessments and allow comparisons across facilities. Chapter 8 provides a summary of the tiered approach and the TSD (OEHHA, 2012) discusses it in detail. Chapter 9 provides an outline that specifies the content and recommended format of HRA results.

#### 2.6 References

ARB, 2007. *Emission Inventory Criteria and Guidelines Regulations (Title 17, California Code of Regulations, Sections 93300-93300.5), and the Emission Inventory Criteria and Guidelines Report* (EICG Report).

NAS, 1983. National Academy of Sciences. *Risk Assessment in the Federal Government: Managing the Process*. National Research Council. National Academy Press, Washington D.C.

NAS, 1994. National Academy of Sciences. *Science and Judgment in Risk Assessment*. National Research Council. National Academy Press, Washington D.C.

NAS, 2009. National Academy of Sciences. *Science and Decisions: Advancing Risk Assessment*. National Academy Press, Washington DC.

OEHHA, 2008. Air Toxics Hot Spots Risk Assessment Guidelines Technical Support Document for the Derivation of Noncancer Reference Exposure Levels. Available online at: <http://www.oehha.ca.gov>

OEHHA, 2009. Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures. May 2009. Available online at: <http://www.oehha.ca.gov>

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OEHHA, 2012. *Air Toxics Hot Spots Program Risk Assessment Guidelines; Technical Support Document for Exposure Assessment and Stochastic Analysis*. Available online at <http://www.oehha.ca.gov>

U.S. EPA (2009). AERMOD Implementation Guide. Last Revised: March 19, 2009.

U.S. EPA, 1997. *Exposure Factors Handbook, Volume I, General Factors*. EPA/600/P-95/002Fa.

AERMOD Implementation Workgroup, U. S. Environmental Protection Agency. Online at: [http://www.epa.gov/ttn/scram/7thconf/aermod/aermod\\_implmtn\\_guide\\_19March2009.pdf](http://www.epa.gov/ttn/scram/7thconf/aermod/aermod_implmtn_guide_19March2009.pdf)

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**3 - Hazard Identification - Air Toxics Hot Spots Emissions**

**3.1 The Air Toxics Hot Spots List of Substances and Emissions Inventory**

For air toxics sources, hazard identification involves identifying pollutants of concern and whether these pollutants are potential human carcinogens or associated with other types of adverse health effects. For the Air Toxics Hot Spots (Hot Spots) Program, the emitted substances that are addressed in a health risk assessment (HRA) are found in the list of hazardous substances designated in the Air Resources Board's (ARB's) *Emission Inventory Criteria and Guidelines Regulations (Title 17, California Code of Regulations, Sections 93300-93300.5)*, and the *Emission Inventory Criteria and Guidelines Report* (EICG Report), which is incorporated by reference therein (ARB, 2007). This list of substances is contained in both Appendix A of this document and the EICG Report. The list of substances also identifies those substances that are considered human carcinogens or potential human carcinogens.

The substances included on the Hot Spots Program list of substances are defined in the statute as those substances found on lists developed by the following sources:

- International Agency for Research on Cancer (IARC);
- U.S. Environmental Protection Agency (U.S. EPA);
- U.S. National Toxicology Program (NTP);
- ARB Toxic Air Contaminant Identification Program List;
- Hazard Evaluation System and Information Service (HESIS) (State of California);
- Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986) list of carcinogens and reproductive toxicants (State of California);
- Any additional substance recognized by the State Board as presenting a chronic or acute threat to public health when present in the ambient air.

All substances emitted by the facility that are on the Hot Spots Act list of substances must be identified in the HRA.

The ARB EICG Report (ARB, 2007) specifies that each facility subject to the Hot Spots Act must submit an Emission Inventory Report to the local air pollution control or air quality management district. This Emission Inventory Report must identify and account for all listed substances used, manufactured, formulated, or released by the facility. All routine, predictable releases must be reported. These inventory reports include the emission data necessary to estimate off-site levels of facility-released Hot Spots substances. These inventory reports will be discussed in further detail in Chapter 4. See Chapter 9 for an outline that specifies the content and recommended format for presenting the air dispersion modeling and HRA results. As presented in Appendix A, the EICG Report divides the list into three groups for reporting purposes. Potency or severity of toxic effects and potential for facility emission were considered in placing compounds into the three groups.

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For the first group (listed in these guidelines in Appendix A-I), all emissions of these substances must be quantified in the HRA. For substances in the second group (listed in these guidelines in Appendix A-II), emissions are not quantified; however, facilities must report whether the substance is used, produced, or otherwise present on-site (i.e., these substances are simply listed in a table in the HRA). Lastly, substances in the third group (Appendix A-III) also only need to be reported in a table in the HRA if they are manufactured by the reporting facility.

Facilities that must comply with the Resource Conservation and Recovery Act and Comprehensive Environmental Response, Compensation and Liability Act (RCRA/CERCLA) requirements for risk assessment need to consult the California Department of Toxic Substances Control (DTSC) Remedial Project Manager to determine which substances must be evaluated in their risk assessment. Some RCRA/CERCLA facilities may emit substances which are not currently listed under the Hot Spots Program but which may require evaluation in a RCRA/CERCLA risk assessment.

#### 3.2 References

ARB, 2007. *Emission Inventory Criteria and Guidelines Regulations (Title 17, California Code of Regulations, Sections 93300-93300.5), and the Emission Inventory Criteria and Guidelines Report* (EICG Report).

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## 4 - Air Dispersion Modeling

The information contained in this section is primarily an abbreviated version of the material found in Chapter 2 of the Air Toxics Hot Spots Risk Assessment Guidelines; Exposure Assessment and Stochastic Analysis Technical Support Document (OEHHA, 2012). Several references have been included in this section to indicate those areas that are covered in more detail in Chapter 2 of the Technical Support Document. However, some air dispersion concepts and procedures have been added to assist the reader in the health risk assessment (HRA) process. In particular, a brief summary of the Hot Spots Analysis and Reporting Program (HARP) software applicability to air dispersion analysis has been included. The HARP software has been developed by the Air Resources Board (ARB), in consultation with OEHHA and Air Pollution Control or Air Quality Management District (District) representatives. The HARP software is the recommended model for calculating and presenting HRA results for the Air Toxics Hot Spots Program (Hot Spots). Information on obtaining the HARP software can be found under the Hot Spots Program on the ARB's web site at [www.arb.ca.gov](http://www.arb.ca.gov). See Chapter 9 for an outline that specifies the content and recommended format for presenting the air dispersion modeling and HRA results.

The U.S. EPA has adopted the AERMOD air dispersion model into their list of regulatory approved models, in place of the previously used ISCST3 model. AERMOD is a steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain (U.S. EPA, 2009). The Air Resources Board recommends AERMOD for Hot Spots risk assessments.

#### 4.1 Air Dispersion Modeling in Exposure Assessment: Overview

Estimates of air concentrations of emitted toxicants in the surrounding community from a facility's air emissions are needed in order to determine cancer and noncancer risks. One approach to determining the concentration of air pollutants emitted from the facility is to do air monitoring in the surrounding community. However, there are a number of disadvantages to this approach. Ambient air monitoring is costly because good estimates of an annual average concentration typically require monitoring at least one day in six over a year. Because it is costly, monitoring is usually limited to a select number of pollutants, and a limited number of sites. There can be significant risks from some chemicals at or even below the monitoring detection limit, which can add considerable uncertainty to risk estimates if many of the measurements are below or near the detection limit. Monitoring measures not only facility emissions but also general ambient background as well. It can be difficult and expensive to distinguish between the two using monitoring, particularly if general ambient background levels are high relative to the contribution of facility emissions. These limitations often make it impractical to use monitoring in a program such as the Air Toxics Hot Spots program with hundreds of facilities.



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Air dispersion models have several advantages over monitoring. Modeling can provide greater spatial detail and the costs are relatively cheap by comparison. For example, dispersion models can estimate the pollutant concentration in air at many receptor locations (hundreds to thousands) and for a multitude of averaging periods. Air dispersion models have been validated using air monitoring.

There are, however, uncertainties associated with the typical usage of air dispersion modeling. The use of meteorological data from the nearest airport may not ideally be the best representation of localized conditions. Gaussian plume air dispersion models ignore calm hours. This can bias model predictions towards underestimation. Some dispersion models offer limited chemical reactions within the algorithms; however, we generally assume the pollutant is inert for the near-field atmospheric travel time. This may bias estimated concentrations towards over-prediction for those pollutants that are highly reactive in the atmosphere. Air dispersion model results are only as good as the emissions estimates and emissions estimates can be uncertain. However, on the whole, the advantages of air dispersion modeling for a program like the Air Toxics Hot Spots far outweigh the disadvantages.

Professional judgment is required throughout the dispersion modeling process. The local air quality district has final authority on modeling protocols. The following guidance is intended to assist in the understanding of dispersion modeling for risk assessments.

Air dispersion modeling includes the following steps (see Figure 1):

1. Create an emission inventory of the toxic releases (Section 4.2)
2. Identify the source types (Section 4.3)
3. Identify the terrain type and land use (Section 4.4)
4. Determine the detail needed for the analysis: screening or refined (Section 4.5)
5. Identify the population exposure (Section 4.6)
6. Identify the receptor network (Section 4.7)
7. Obtain meteorological data (for refined air dispersion modeling only) (Section 4.8)
8. Select an air dispersion model (Section 4.9)
9. Prepare a modeling protocol and submit to the local Air District (hereafter referred to as "the District") (Section 4.14)
10. Complete the air dispersion analysis
11. If necessary, redefine the receptor network and return to Step 10

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12. Complete the risk assessment

13. If necessary, refine the inputs and/or the model selection and return to Step 8

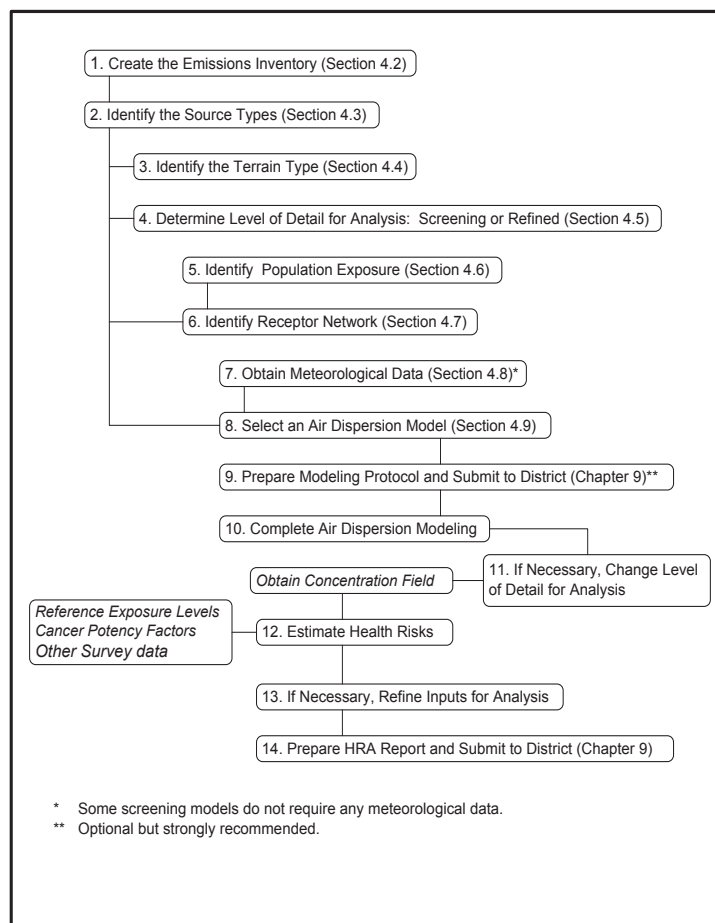
14. Present the HRA results (Chapter 9 provides an outline that specifies the content and recommended format of HRA results).

The output of the air dispersion modeling analysis includes a receptor field of ground level concentrations of the pollutant in ambient air. These concentrations can be used to estimate an inhaled or ingested dose for the estimation of multipathway cancer risk, or used to determine a hazard index for acute (inhalation), and chronic noncancer multipathway risks. It should be noted that in the Air Toxics "Hot Spots" program, facilities simulate the dispersion of the chemical emitted as an inert compound, and do not model any atmospheric transformations or dispersion of products from such reactions. The U.S. EPA Guideline on Air Quality Models (U.S. EPA, 2005) should be consulted when evaluating reactive pollutants for other regulatory purposes.

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**Figure 1 Overview of the Air Dispersion Modeling Process.**



## 4.2 Emission Inventories

The Emission Inventory Reports (Inventory Reports) developed under the Hot Spots Program provide data to be used in the HRA and in the air dispersion modeling process. The Inventory Reports contain information regarding emission sources, emitted substances, emission rates, emission factors, process rates, and release parameters (area and volume sources may require additional release data beyond that generally available in Emissions Inventory reports). This information is developed according to the ARB's *Emission Inventory Criteria and Guidelines Regulations (Title 17, California Code of Regulations, Sections 93300-93300.5)*, and the *Emission Inventory Criteria and Guidelines Report* (EICG Report), which is incorporated by reference therein (ARB, 2007).

Updated emission data for process changes, emission factor changes, material/fuel changes, or shutdown must be approved by the District prior to the submittal of the health risk assessment (HRA). Ideally, the District review of updated emissions could be completed within the modeling protocol. In addition, it must be stated clearly in the risk assessment if the emission estimates are based on updated or revised emissions (e.g., emission reductions). This section summarizes the requirements that apply to the emission data which are used for Air Toxics "Hot Spots" Act risk assessments.

### 4.2.1 Air Toxics Hot Spots Emissions

As noted in Chapter 3, Hazard Identification, the HRA should identify all substances emitted by the facility, which are on the Hot Spots Act list of substances (see Appendix A of the Guidance Manual or the EICG Report). The EICG Report specifies that Inventory Reports must identify and account for all listed substances used, manufactured, formulated, or released by the facility. All routine, predictable releases must be reported. Under the regulations, the list is divided into three groups for reporting purposes. The first group (listed in Appendix A-I of the Inventory Guidelines Report) has all pollutants whose emissions must be quantified. The second group (listed in Appendix A-II of the Inventory Guidelines Report) includes substances where emissions do not need to be quantified; however, facilities must report whether the substance is used, produced, or otherwise present on-site. The third group (listed in Appendix A-III of the Emissions Inventory Guidelines Report) includes substances whose emissions need not be reported unless the substance is manufactured by the facility. Chemicals or substances in the second and third groups should be listed in a table in the risk assessment.

Facilities that must comply with the Resource Conservation and Recovery Act and Comprehensive Environmental Response, Compensation and Liability Act (RCRA/CERCLA) requirements for risk assessment need to consult the Department of Toxic Substances Control (DTSC) Remedial Project Manager to determine which substances must be evaluated in their risk assessment in addition to the list of "Hot Spots" chemicals. Some RCRA/CERCLA facilities may emit chemicals that are not currently listed under the "Hot Spots" Program. Chapter 9 provides an outline that specifies the content and recommended format of HRA results.



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#### 4.2.1.1 Emission Estimates Used in the Risk Assessment

The HRA must include emission estimates for all substances that are required to be quantified in the facility's emission inventory report. Specifically, HRAs should include both annual average emissions and maximum 1-hour emissions for each pollutant. Maximum 1-hour emissions are used for acute noncancer health impacts while annual emissions are used for chronic exposures (i.e., chronic and 8-hour noncancer health impacts or cancer risk assessment).

Emissions for each substance must be reported for individual emitting processes associated with unique devices within a facility. Total facility emissions for an individual air contaminant will be the sum of emissions, reported by process, for that facility. Information on daily and annual hours of operation, and relative monthly activity, must be reported for each emitting process. Devices and emitting processes must be clearly identified and described and must be consistent with those reported in the emissions inventory report.

The HRA should include tables that present the emission information (i.e., emission rates for each substance released from each process) in a clear and concise manner. The District may allow the facility operator to base the HRA on more current emission estimates than those presented in the previously submitted emission inventory report (i.e., actual enforceable emission reductions realized by the time the HRA is submitted to the District). If the District allows the use of more current emission estimates, the District must review and approve the new emissions estimates prior to use in the HRA. The HRA report must clearly state what emissions are being used and when any reductions became effective. Specifically, a table presenting emission estimates included in the previously submitted emission inventory report as well as those used for the HRA should be presented. The District should be consulted concerning the specific format for presenting the emission information. Chapter 9 provides an outline that specifies the content and recommended format of HRA results. A revised emission inventory report must be submitted to the District prior to submitting the HRA and forwarded by the District to the ARB, if revised emission data are used.

##### 4.2.1.1.1 Molecular Weight Adjustments for the Emissions of Metal Compounds

For most of the Hot Spots toxic metals, the OEHHA cancer potency factors, acute and chronic RELs apply to the weight of the toxic metal atom contained in the overall compound. Some of the Hot Spots compounds contain various elements along with the toxic metal atom (e.g., "Nickel hydroxide", CAS number 12054-48-7, has a formula of  $H_2NiO_2$ ). Therefore, an adjustment to the reported pounds of the overall compound is needed before applying the OEHHA cancer potency factor for "Nickel and compounds" to such a compound. This ensures that the cancer potency factor, acute or chronic REL is applied only to the fraction of the overall weight of the emissions that are associated with health effects of the metal. In other cases, the Hot Spots metals are already reported as the metal atom equivalent (e.g., CAS 7440-02-0, "Nickel"), and these cases do not use any further molecular weight adjustment. (Refer to Note [7] in Appendix A,

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List of Substances in the EICG Report for further information on how the emissions of various Hot Spots metal compounds are reported.)

The appropriate molecular weight adjustment factors (MWF) to be used along with the OEHHA cancer potency factors, acute and chronic RELs for Hot Spots metals can be found in the MWF column<sup>1</sup> of the table containing OEHHA/ARB Approved Health Values for use in Hot Spots Facility Risk Assessments that is in Appendix L of this document.

As an example, the compound "Nickel hydroxide" has a molecular formula of  $H_2NiO_2$ . The atomic weight of each of the elements in this compound, and the fraction they represent of the total weight, are therefore as follows:

Element	Number of atoms	Atomic Weight	Fraction of Total Weight = MWF
1 x Nickel (Ni)	1 x	58.70	$58.70 / 92.714 = 0.6332$ (MWF for Nickel)
2 x Oxygen (O)	2 x	15.999	
2 x Hydrogen (H)	2 x	1.008	
Total Molecular Weight of $H_2NiO_2$ :		92.714	

So, for example, assume that 100 pounds of "Nickel hydroxide" emissions are reported under CAS number 12054-48-7. To get the Nickel atom equivalent of these emissions, multiply by the listed MWF (0.6332) for Nickel hydroxide:

- 100 pounds x 0.6332 = 63.32 pounds of Nickel atom equivalent.

This step should be completed prior to applying the OEHHA cancer potency factor for "Nickel and compounds" in a calculation for a prioritization score or risk assessment calculation. (Note - The HARP software automatically applies the appropriate MWF for each Hot Spots chemical (by CAS number), so the emissions should not be manually adjusted when using HARP. Therefore, if using HARP, you would use 100 pounds for Nickel hydroxide and HARP will make the MWF adjustment for you. If not using HARP, you would use 63.32 pounds.)

<sup>1</sup> The value listed in the MWF column for Asbestos is not a molecular weight adjustment. This is a conversion factor for adjusting mass and fibers or structures. See Appendix C for more information on Asbestos reporting and risk assessment information or see the EICG report for reporting guidance.



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#### 4.2.1.2 Release Parameters

Emission release parameters (e.g., stack height and inside diameter, stack gas exit velocity, release temperature and emission source location in UTM coordinates) are needed as inputs to the air dispersion model. The Inventory Guidelines specify the release parameters that must be reported for each stack, vent, ducted building, exhaust site, or other site of exhaust release. Additional information may be required to characterize releases from non-stack (volume and area) sources; see U.S. EPA dispersion modeling guidelines or specific user's manuals. This information should also be included in the air dispersion section of the risk assessment. This information must be presented in tables included in the risk assessment. Note that some dimensional units needed for the dispersion model may require conversion from the units reported in the Inventory Report (e.g., Kelvin (K) vs. degrees Fahrenheit (°F)). Chapter 9 provides an outline that specifies the content and recommended format of HRA results.

#### 4.2.1.3 Operation Schedule

The HRA should include a discussion of the facility operation schedule and daily emission patterns. For AB2588 purposes, emissions should be reported based on routine and predictable operations. Weekly or seasonal emission patterns may vary and should be discussed. This is especially important in a refined HRA. Diurnal emission patterns should be simulated in the air dispersion model because of diurnal nature of meteorological observations. Diurnal evaluations are important to include since diurnal weather patterns and emission releases may cause significant differences in the concentration at a receptor of interest.

A table should be included listing the emission schedule on an hourly and yearly basis. In addition, the emission schedule and exposure schedule should corroborate any exposure adjustment factors used for approximating an inhaled dose. For more information about exposure adjustment factors, see Section 4.8.1. Alternatively, exposure adjustments can be made through refining the air dispersion analysis. See Section 4.11.1.2(h) for special case modeling or Appendix M. An alternative to including modeling that addresses diurnal influences would be to include a sensitivity study showing, and/or text explaining, the reason(s) why there are no significant differences due to diurnal influences on the emissions from the facility or at the receptor(s) of interest. For more guidance, you can contact the district or reviewing authority. Chapter 9 provides an outline that specifies the content and recommended format of HRA results.

#### 4.2.1.4 Emission Controls

The HRA should include a description of control equipment, the emitting processes it serves, and its efficiency in reducing emissions of substances on the Air Toxics "Hot Spots" list. The EICG Report requires that this information be included in the Inventory Reports, along with the emission data for each emitting process. If the control equipment did not operate full-time throughout the year, then the reported overall control efficiency must be adjusted to account for any predictable downtime of the

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control equipment. Any entrainment of toxic substances to the atmosphere from control equipment should be accounted for; this includes fugitive releases during maintenance and cleaning of control devices (e.g., baghouses and cyclones). Contact the District for guidance with control equipment adjustments. Recommended default deposition rates that are used when calculating potential noninhalation health impacts are listed in Section 5.3.2. Chapter 9 provides an outline that specifies the content and recommended format of HRA results.

#### 4.2.2 Landfill Emissions

Emission estimates for landfill sites should be based on testing required under Health and Safety Code, Section (HSC) 41805.5 (AB 3374, Calderon) and any supplemental AB 2588 source tests or emission estimates used to characterize air toxics emissions from landfill surfaces or through off-site migration. The District should be consulted to determine the specific Calderon data to be used in the HRA. The "Hot Spots" Program HRA for landfills should also include emissions of listed substances for all applicable power generation and maintenance equipment at the landfill site. Processes that need to be addressed include stationary internal combustion engines, flares, evaporation ponds, composting operations, boilers, and gasoline dispensing systems.

#### 4.3 Source Characterization

Pollutants are released into the atmosphere in many different ways. The release conditions need to be properly identified and characterized to appropriately use the air dispersion models.

##### 4.3.1 Source Type

Source types can be identified as point, line, area, or volume sources for input to the air dispersion model. Several air dispersion models have the capability to simulate more than one source type.

##### 4.3.1.1 Point Sources

Point sources are probably the most common type of source and most air dispersion models have the capability to simulate them. Typical examples of point sources include exhaust stacks. Isolated vents from buildings are special examples of point sources.

##### 4.3.1.2 Line Sources

The version 12345 or newer of the AERMOD can accommodate line sources. Line sources can be also treated as a special case of either an area or a volume source. Examples of line sources include: conveyor belts and rail lines, freeways, and busy roadways. Not all mobile sources may be subject to the Hot Spots program; however, non-motor vehicles that operate within a facility (e.g., ships, trains, and cranes, etc.) are subject to the Hot Spots program. For more information, see the ARB's Emission Inventory and Criteria Guidelines document or ARB's interpretation and guidance



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memorandum to CAPCOA regarding mobile sources which are subject to the "Hot Spots" program. This memo can be found at <http://www.arb.ca.gov/ab2588/motorv.pdf>.

Mobile sources and rail lines are required to be evaluated under SB 352. SB 352 requires a risk assessment performed under the Hot Spots risk assessment guidance for proposed school sites within 500 feet of a busy roadway. Dedicated air dispersion models are available for motor vehicle emissions from roadways which are a special type of line source. These models (i.e., CALINE3, CAL3QHCRCR, and CALINE4) are designed to simulate the mechanical turbulence and thermal plume rise due to the motor vehicle activity on the roadway. However, these dedicated models use the Pasquill-Gifford dispersion stability classes for dispersion; the AERMOD dispersion model uses a more advanced continuous stability estimation method based on observations. The limitation with AERMOD is that the user needs to estimate initial mixing (Szo and Syo) for mechanical turbulence and thermal plume rise. Consult with the District prior to conducting roadway modeling to determine model use.

For practical information on how to simulate roadway emission dispersion using these models, see the California Air Pollution Control Officer's Association (CAPCOA) website at <http://www.capcoa.org> or the Sacramento Metropolitan AQMD (SMAQMD) website at <http://www.airquality.org/ceqa/RoadwayProtocol.shtml>. The SMAQMD has a document titled, "Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways" (January, 2010). The ARB recommends this document for SB-352 risk assessments.

#### 4.3.1.3 Area Sources

Emissions that are to be modeled as area sources are typical of fugitive sources characterized by non-buoyant emissions containing negligible vertical extent (e.g., no plume rise or emissions distributed over a large horizontal area).

Fugitive particulate (PM2.5, PM10, TSP) emission sources include areas of disturbed ground (e.g., open pits, parking lots) which may be present during operational phases of a facility's life. Also included are areas of exposed material (e.g., storage piles and slag dumps) and segments of material transport where potential fugitive emissions may occur (uncovered haul trucks or rail cars, emissions from unpaved roads). Fugitive emissions may also occur during stages of material handling where particulate material is exposed to the atmosphere (uncovered conveyors, hoppers, and crushers).

Other fugitive emissions emanating from many points of release may be modeled as area sources. Examples include fugitive emissions from valves, flanges, venting, and other connections that occur at ground level or at an elevated level or deck if on a building or structure. Modern dispersion models include an option for an initial vertical extent (Szo) where needed.

Modeling portable equipment as an area source is a case-by-case situation that should be discussed with the District or reviewing authority. Situations may exist where this type of operation is best represented as another type of release.

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#### 4.3.1.4 Volume Sources

Non-point sources with emissions containing an initial vertical extent should be modeled as volume sources. The initial vertical extent may be due to plume rise or a vertical distribution of numerous smaller sources over a given area. Examples of volume sources include buildings with natural fugitive or passive ventilation, and line sources such as conveyor belts and rail lines.

#### 4.3.2 Quantity of Sources

The number of sources at a facility may influence the selection of the air dispersion model. Some dispersion models are capable of simulating only one source at a time, and are therefore referred to as single-source models (e.g., AERSCREEN).

In some cases, for screening purposes, single-source models may be used in situations involving more than one source using one of the following approaches:

- Combining all sources into one single "representative" source

In order to be able to combine all sources into one single source, the individual sources must have similar release parameters. For example, when modeling more than one stack as a single "representative" stack, the stack gas exit velocities and temperatures must be similar. In order to obtain a conservative estimate, the values leading to the higher concentration estimates should typically be used (e.g., the lowest stack gas exit velocity and temperature, the height of the shortest stack, and a receptor distance and spacing that will provide maximum concentrations, etc.).

- Running the model for each individual source and superimposing results

Superimposition of results of single sources of emissions is the actual approach followed by all the Gaussian models capable of simulating more than one source. Simulating sources in this manner may lead to conservative estimates if worst-case meteorological data are used or if the approach is used with a model that automatically selects worst-case meteorological conditions, especially wind direction. The approach will typically be more conservative the farther apart the sources are because each run would use a different worst-case wind direction.

Additional guidance regarding source merging is provided by the U.S. EPA (1995a). It should be noted that depending upon the population distribution, the total burden can actually increase when pollutants are more widely dispersed. If the total burden from the facility or zone of impact (see Section 4.6.1) could increase for the simplifying modeling assumptions described above, the District should be consulted.

#### 4.4 Terrain Type

Two types of terrain characterizations are required to select the appropriate model. One classification is made according to land type and another one according to terrain topography.



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#### 4.4.1 Terrain Type – Land Use

Some air dispersion models (e.g., CALINE) use different dispersion coefficients (sigmas) depending on the land use over which the pollutants are being transported. The land use type is also used by some models to select appropriate wind profile exponents. Traditionally, the land type has been categorized into two broad divisions for the purposes of dispersion modeling: urban and rural. Accepted procedures for determining the appropriate category are those suggested by Irwin (1978): one based on land use classification and the other based on population.

The land use procedure is generally considered more definitive. Population density should be used with caution and should not be applied to highly industrialized areas where the population density may be low. For example, in low population density areas a rural classification would be indicated, but if the area is sufficiently industrialized the classification should already be “urban” and urban dispersion parameters should be used.

If the facility is located in an area where land use or terrain changes abruptly, for example, on the coast, the District should be consulted concerning the classification. If need be, the model should be run in both urban and rural modes and the District may require a classification that biases estimated concentrations towards over prediction. As an alternative, the District may require that receptors be grouped according to the terrain between source and receptor.

AERMOD is the U.S. EPA’s preferred dispersion model for a wide range of applications in rural or urban conditions. The users should refer to section 5.0 of the AERMOD Implementation Guide to determine urban or rural conditions.

The Land Use and the Population Density Procedures discussed above are described as follows.

##### 4.4.1.1 Land Use Procedure

- (1) Classify the land use within the total area A, circumscribed by a 3 km radius circle centered at the source using the meteorological land use typing scheme proposed by Auer (1978) and shown in Table 4.1.
- (2) If land use types I1, I2, C1, R2 and R3 account for 50 percent or more of the total area A described in (1), use urban dispersion coefficients. Otherwise, use appropriate rural dispersion coefficients.

##### 4.4.1.2 Population Density Procedure

- (1) Compute the average population density ( $p$ ) per square kilometer with A as defined in the Land Use procedure described above. (Population estimates are also required to determine the exposed population; for more information see Section 4.6.3.)

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- (2) If  $p$  is greater than 750 people/km<sup>2</sup> use urban dispersion coefficients, otherwise, use appropriate rural dispersion coefficients.

**Table 4.1 Identification and classification of land use types (Auer, 1978)**

Used to define rural and urban dispersion coefficients in certain models.

Type	Use and Structures	Vegetation
I1	<i>Heavy Industrial</i> Major chemical, steel and fabrication industries; generally 3-5 story buildings, flat roofs	Grass and tree growth extremely rare; <5% vegetation
I2	<i>Light-moderate industrial</i> Rail yards, truck depots, warehouses, industrial parks, minor fabrications; generally 1-3 story buildings, flat roofs	Very limited grass, trees almost totally absent; <5% vegetation
C1	<i>Commercial</i> Office and apartment buildings, hotels; >10 story heights, flat roofs	Limited grass and trees; <15% vegetation
R1	<i>Common residential</i> Single family dwelling with normal easements; generally one story, pitched roof structures; frequent driveways	Abundant grass lawns and light-moderately wooded; >70% vegetation
R2	<i>Compact residential</i> Single, some multiple, family dwelling with close spacing; generally <2 story, pitched roof structures; garages (via alley), no driveways	Limited lawn sizes and shade trees; <30% vegetation
R3	<i>Compact residential</i> Old multi-family dwellings with close (<2 m) lateral separation; generally 2 story, flat roof structures; garages (via alley) and ash pits, no driveways	Limited lawn sizes, old established shade trees; <35% vegetation
R4	<i>Estate residential</i> Expansive family dwelling on multi-acre tracts	Abundant grass lawns and lightly wooded; >80% vegetation
A1	<i>Metropolitan natural</i> Major municipal, state, or federal parks, golf courses, cemeteries, campuses; occasional single story structures	Nearly total grass and lightly wooded; >95% vegetation
A2	Agricultural rural	Local crops (e.g., corn, soybean); >95% vegetation
A3	<i>Undeveloped</i> Uncultivated; wasteland	Mostly wild grasses and weeds, lightly wooded; >90% vegetation
A4	Undeveloped rural	Heavily wooded; >95% vegetation
A5	<i>Water surfaces</i> Rivers, lakes	

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#### 4.4.2 Terrain Type - Topography

Surface conditions and topographic features generate turbulence, modify vertical and horizontal winds, and change the temperature and humidity distributions in the boundary layer of the atmosphere. These in turn affect pollutant dispersion and models differ in their need to take these factors into account.

The classification according to terrain topography should ultimately be based on the topography at the receptor location with careful consideration of the topographical features between the receptor and the source. Differentiation of simple versus complex terrain is unnecessary with AERMOD. In complex terrain, AERMOD employs the well-known dividing-streamline concept in a simplified simulation of the effects of plume-terrain interactions. For other plume models, topography can be classified as follows:

##### 4.4.2.1 Simple Terrain (also referred to as "Rolling Terrain")

Simple terrain is all terrain located below stack height including gradually rising terrain (i.e., rolling terrain). Note that *Flat Terrain* also falls in the category of simple terrain.

##### 4.4.2.2 Intermediate Terrain

Intermediate terrain is terrain located above stack height and below plume height. The recommended procedure to estimate concentrations for receptors in intermediate terrain is to perform an hour-by-hour comparison of concentrations predicted by simple and complex terrain models. The higher of the two concentrations should be reported and used in the risk assessment.

##### 4.4.2.3 Complex Terrain

Complex terrain is terrain located above plume height. Complex terrain models are necessarily more complicated than simple terrain models. There may be situations in which a facility is "overall" located in complex terrain but in which the nearby surroundings of the facility can be considered simple terrain. In such cases, receptors close to the facility in this area of simple terrain will "dominate" the risk analysis and there may be no need to use a complex terrain model. It is unnecessary to determine which terrain dominates the risk analysis for users of AERMOD.

#### 4.5 Level of Detail: Screening vs. Refined Analysis

Air dispersion models can be classified according to the level of detail which is used in the assessment of the concentration estimates as "screening" or "refined". Refined air dispersion models use more robust algorithms capable of using representative meteorological data to predict more representative and usually less conservative estimates. Refined air dispersion models are, however, more resource intensive than their screening counterparts. It is advisable to first use a screening model to obtain conservative concentration estimates and calculate health risks. If the health risks are estimated to be above the threshold of concern, then use of a refined model to calculate

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more representative concentration and health risk estimates would be warranted. There are situations when screening models represent the only viable alternative (e.g., when representative meteorological data are not available). The district or reviewing authority should be consulted to determine the appropriate method for determining the level of detail in the modeling analysis. The HARP software will incorporate the capability of using either representative meteorological data from AERMOD or the default meteorological conditions from the AERSCREEN model.

It is acceptable to use a refined air dispersion model in a "screening" mode for this program's health risk assessments. In this case, a refined air dispersion model is used:

- with worst-case meteorology instead of representative meteorology;
- with a conservative averaging period conversion factor to calculate longer term concentration estimates (see Section 4.10 for more discussion on screening air dispersion models and adjustments factors).

Note that use of worst case meteorology in a refined model is not the normal practice in New Source Review or Ambient Air Quality Standard evaluation modeling.

#### 4.6 Population Exposure

The level of detail required for the analysis (e.g., screening or refined), and the procedures to be used in determining geographic resolution and exposed population require case-by-case analysis and professional judgment. The District should be consulted before beginning the population exposure estimates, and as results are generated, further consultation may be necessary. Some suggested approaches and methods for handling the breakdown of population and performance of a screening or detailed risk analysis are provided in this section.

In addition to estimating individual cancer risk at specific points such as the MEI (maximally exposed individual), OEHHA recommends determining the number of people who reside within the  $1 \times 10^{-6}$ ,  $1 \times 10^{-5}$ ,  $1 \times 10^{-4}$ , and higher cancer risk isopleths. For noncancer population evaluations, the number of people who reside within the 0.5, one, five, or higher hazard index isopleths should be reported. The HARP software can provide population exposure estimates as cancer burden or as the number of persons exposed to a selected (user identified) health risk/impact level. Information on obtaining the HARP software can be found under the Hot Spots Program on the ARB's web site at [www.arb.ca.gov](http://www.arb.ca.gov). Chapter 9 provides an outline that specifies the content and recommended format of HRA results.

##### 4.6.1 Zone(s) of Impact

As part of the estimation of the population exposure for the cancer risk analysis, it is necessary to determine the geographic area affected by the facility's emissions. An initial approach to define a "zone of impact" surrounding the source is to generate an isopleth where the total excess lifetime cancer risk from inhalation exposure to all emitted carcinogens is greater than  $10^{-6}$  (one in 1,000,000).

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For noncarcinogens, a second, third, and fourth isopleth (to represent the chronic, 8-hour, and acute impacts) should be created to define the zone of impact for the hazard index from both inhalation and noninhalation pathways greater than or equal to 1.0. For clarity these isopleths may need to be presented on separate maps in the HRA.

Contact the District or reviewing authority to discuss inclusion of isopleth maps if all potential health risks fall within the facility boundary and no receptors have, or will ever, be present within the boundary (also see Section 4.7.1 for a discussion of on-site receptors).

The initial "zone of impact" can be determined as follows:

- Use a screening dispersion model (e.g., AERSCREEN) to obtain concentration estimates for each emitted pollutant at varying receptor distances from the source. Several screening models feature the generation of an automatic array of receptors which is particularly useful for determining the zone of impact. In order for the model to generate the array of receptors the user needs to provide some information normally consisting of starting distance, increment and number of intervals.
- Calculate total cancer risk and hazard index (HI) for each receptor location by using the methods provided in the risk characterization sections in Chapter 8 of the Air Toxics Hot Spots Risk Assessment Guidance Manual.
- Find the distance where the total inhalation cancer risk is equal to  $10^{-6}$ ; this may require redefining the receptor array in order to have two receptor locations that bound a total cancer risk of  $10^{-6}$ . Next, find the distance where the chronic, 8-hour, and acute health hazard indices are declared significant by the District (e.g., acute, 8-hour, or chronic HI = 1.0).

Some Districts may prefer to use a cancer risk of  $10^{-7}$  or an HI of 0.5 as the zone of impact. Therefore, the District should be consulted before modeling efforts are initiated. If the zone of impact is greater than 25 km from the facility at any point, then the District should be consulted. The District may specify limits on the area of the zone of impact. Ideally, these preferences would be presented in the modeling protocol (see Section 4.14).

Note that when depicting the risk assessment results, risk isopleths must present the total cancer and noncancer risk from both inhalation and noninhalation pathways. The zone of impact should be clearly shown on a map with geographic markers of adequate resolution (see Section 4.6.3.1). The text below discusses methodology for defining the zone of impact and has format recommendations. Chapter 9 provides an outline that specifies the content and recommended format of all HRA results.

The zone of impact can be defined once the exposure assessment (air dispersion modeling) process has determined the pollutant concentrations at each designated off-site receptor and a risk analysis (see Chapter 8) has been performed. For clarity, the cancer and noncancer zone(s) of impact should be presented on separate maps. A

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map illustrating the carcinogenic zone of impact is required. The District may at its discretion ask for the map illustrating the potential carcinogenic zone of impact to identify the zone of impact for the minimum exposure pathways (inhalation, soil, dermal, and mother's milk) and the zone of impact for all applicable pathways of exposure (minimum pathways plus site/route dependent pathways). Two maps may be needed to accomplish this. The legend of these maps should state the level(s) used for the zone of impact and identify the exposure pathways that were included in the assessment.

The noncancer maps should also clearly identify the noncancer zones of impact. These include the acute (inhalation) zone of impact, 8-hour (inhalation) zone of impact and the chronic (including both inhalation, multipathway) zone of impact. The District may at its discretion require separate chronic inhalation and chronic multipathway zones of impact maps. For clarity, presentation of the two chronic zones of impact may also require two or more maps. The legend of these maps should state the level(s) used for the zone of impact and identify the exposure pathways (and target organs) that were included in the assessment. Further information regarding the methods for determination of hazard indices and cancer risk are discussed in Chapter 8 and Appendix I.

#### 4.6.2 Screening Population Estimates for Risk Assessments

A screening risk assessment should include an estimate of the maximum exposed population. For screening risk assessments, a detailed description of the exposed population is not required. The impact area to be considered should be selected to be health protective (i.e., will not underestimate the number of exposed individuals). A health-protective assumption is to assume that all individuals within a large radius of the facility are exposed to the maximum concentration. If a facility must also comply with the RCRA/CERCLA risk assessment requirements, health effects to on-site workers may also need to be addressed. The DTSC's Remedial Project Manager should be consulted on this issue. The District should be consulted to determine the population estimate that should be used for screening purposes. Guidance for one screening method is presented here.

1. Use a screening dispersion model (e.g., AERSCREEN) to obtain concentration estimates for each emitted pollutant at varying receptor distances from the source. Several screening models feature the generation of an automatic array of receptors that is particularly useful for determining the zone of impact. In order for the model to generate the array of receptors, the user needs to provide some information normally consisting of starting distance, increment, and number of intervals.
2. Calculate the potential cancer risk and hazard index for each receptor location by using the methods provided in the risk characterization sections of this document (Chapter 8).
3. Find the distance where the potential cancer risk is equal to District specified levels (e.g.,  $10^{-6}$ ); this may require redefining the receptor array in order to have



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two receptor locations that bound a total cancer risk of  $10^{-6}$ . This exercise should be repeated for the noncancer health impacts.

4. Calculate cancer burden by estimating the number of people in the grid and stipulate that all are exposed at the highest level.

#### 4.6.3 Refined Population Estimates for Risk Assessments

The refined HRA requires a detailed analysis of the population exposed to emissions from the facility. Where possible, a detailed population exposure analysis provides estimates of the number of individuals in residences and offsite workplaces, as well as at sensitive receptor sites such as schools, daycare centers and hospitals. The District may require that locations with high densities of sensitive individuals be identified (e.g., schools, daycare centers, hospitals). These population analyses can include exposure estimates for workers and residents through the use of land use maps or other tools. The overall exposed residential and worker populations should be apportioned into smaller geographic subareas. The information needed for each subarea is:

1. The number of exposed persons, and
2. The receptor location at which the calculated ambient air concentration is assumed to be representative of the exposure to the entire population in the subarea.

A multi-tiered approach is suggested for the population analysis. Census tracts, which the facility could significantly impact, should be identified (see Section 4.6.3.1). A census tract should be divided into smaller subareas if it is close to the facility where ambient concentrations vary widely. The District may determine that census tracts provide sufficient resolution near the facility to adequately characterize population exposure or they may prefer the census information to be evaluated using smaller blocks. Further downwind where ambient concentrations are less variable, the census tract level may be acceptable to the District. The District may determine that the aggregation of census tracts (e.g., when the census tracts making up a city are combined) is appropriate for receptors that are considerable distances from the facility.

If a facility must also comply with the RCRA/CERCLA HRA requirements, health effects to on-site workers may also need to be addressed. The DTSC's Remedial Project Manager should be consulted on this issue. In some cases it may be appropriate to evaluate risks to on-site receptors. The district should be consulted about special cases for which evaluation of on-site receptors is appropriate, such as facilities frequented by the public or where people may reside (e.g., military facilities).

##### 4.6.3.1 Census Tracts

For a refined risk assessment, the boundaries of census tracts can be used to define the geographic area to be included in the population exposure analysis. Digital maps showing the census tract boundaries in California can be obtained from "The Thomas

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Guide"® on the World Wide Web. Statistics for each census tract can be obtained from the U.S. Census Bureau. The website address for the U.S. Census Bureau is <http://www.census.gov>. Numerous additional publicly accessible or commercially available sources of census data can be found on the World Wide Web. A specific example of a census tract is given in Appendix K. The HARP software includes U.S. census data and is a recommended tool for performing population exposure estimates.

The two basic steps in defining the area under analysis are:

(1) Identify the "zone of impact" (as defined previously in Section 4.6.1) on a map detailed enough to provide for resolution of the population to the subcensus tract level. (The U.S. Geological Survey (USGS) 7.5-minute series maps and the maps within the HARP software provide sufficient detail.) This is necessary to clearly identify the zone of impact, location of the facility, and sensitive receptors within the zone of impact. If significant development has occurred since the USGS survey, this should be indicated. A specific example of a 7.5-minute series map is given in Appendix K.

(2) Identify all census tracts within the zone of impact using a U.S. Bureau of Census or equivalent map (e.g., Thomas Brothers, HARP Software). If only a portion of the census tract lies within the zone of impact, then only the population that falls within the isopleth should be used in the population estimate or burden calculation. To determine this level of detail, local planning and zoning information may need to be collected. When this more detailed information is not available, then a less refined approach is to include the census data if the centroid of the census block falls within the isopleths of interest. The census tract boundaries should be transferred to a map, such as a USGS map (referred to hereafter as the "base map").

An alternative approach for estimating population exposure in heavily populated urban areas is to apportion census tracts to a Cartesian grid cell coordinate system. This method allows a Cartesian coordinate receptor concentration field to be merged with the population grid cells. This process can be computerized and minimizes manual mapping of centroids and census tracts. The HARP software includes this function and will provide population estimates that are consistent with the methodology discussed here.

The District may determine that aggregation of census tracts (e.g., which census tracts making up a city can be combined) is appropriate for receptors that are located at considerable distances from the facility. If the District permits such an approach, it is suggested that the census tract used to represent the aggregate be selected in a manner to ensure that the approach is health protective. For example, the census tract included in the aggregate that is nearest (downwind) to the facility should be used to represent the aggregate.

##### 4.6.3.1.1 Subcensus Tract

Within each census tract are smaller population units. These units [urban block groups (BG) and rural enumeration districts (ED)] contain about 1,100 persons. BGs are



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further broken down into statistical units called blocks. Blocks are generally bounded by four streets and contain an average of 70 to 100 persons. However, this range in population is an average and population units may vary significantly. In some cases, the EDs are very large and identical to a census tract.

The area requiring detailed (subcensus tract) resolution of the exposed residential and worker population will need to be determined on a case-by-case basis through consultation with the District. The District may determine that census tracts provide sufficient resolution near the facility to adequately characterize population exposure.

Employment population data can be obtained at the census tract level from the U.S. Census Bureau or from local planning agencies. This degree of resolution will generally not be sufficient for most risk assessments. For the area requiring detailed analysis, zoning maps, general plans, and other planning documents should be consulted to identify subareas with worker populations.

The boundaries of each residential and employment population area should be transferred to the base map.

#### 4.6.4 Sensitive Receptor Locations

Individuals who may be more sensitive to toxic exposures than the general population are distributed throughout the total population. Sensitive populations may include young children and chronically ill individuals. The District may require that locations with high densities of sensitive individuals be identified (e.g., schools, nursing homes, residential care facilities, daycare centers, and hospitals). The HRA should state what the District requirements are regarding identification of sensitive receptor locations.

Although protection of sensitive individuals is incorporated into OEHHA's risk assessment methodology in both cancer risk and noncancer risk assessment, the assessment of risk at the specific location of such sensitive individuals (e.g., schools, hospitals, or nursing homes) may be useful to assure the public that such individuals are being considered in the analysis. For some chemicals (e.g., mercury and manganese) children have been specifically identified as the sensitive subpopulation for noncancer health impacts, so it can be particularly appropriate to assess school sites.

### 4.7 Receptor Siting

#### 4.7.1 Receptor Points

The modeling analysis should contain a network of receptor points with sufficient detail (in number and density) to permit the estimation of the maximum concentrations. Locations that must be identified include:

- The maximum estimated off-site impact or point of maximum impact (PMI),
- The maximum exposed individual at an existing residential receptor (MEIR),
- The maximum exposed individual at an existing occupational worker receptor (MEIW).

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Note that some situations may also require that on-site receptor (worker or residential) locations be evaluated. The risk assessor can contact the District or reviewing authority for guidance if on-site exposure situations are present at the emitting facility. However, these on-site locations should be included in the HRA. Some examples where the health impacts of on-site receptors may be appropriate could be military base housing, prisons, universities, day care facilities, or locations where the public may have regular access for the appropriate exposure period (e.g., a lunch time café or museum for acute exposures). When a receptor lives and works on the facility, site, or property, then these receptors should be evaluated and reported under both residential and worker scenarios and the one that is most health protective should be used for risk management decisions. The cancer risk estimates for the onsite residents may use a 30-year exposure duration while the 25-year exposure duration is used for a worker. Under a Tier 2 analysis, alternate exposure durations may be evaluated and presented with all assumptions supported.

All of these locations (i.e., PMI, MEIR, and MEIW) must be identified for potential multipathway carcinogenic and noncarcinogenic effects. It is possible that the estimated PMI, MEIR, and MEIW risk for cancer, chronic noncancer, 8-hour, and acute noncarcinogenic risks occur at different locations or that some of these evaluations may not be necessary (e.g., the receptor does not exist). For example, some facilities will not have off-site workers in the vicinity of the facility and will not need to evaluate worker exposure, or the exposure situation may only require the evaluation of short-term carcinogenic or acute noncancer impacts (see Section 8.2.10 for a discussion of short-term projects). The approval to revise the exposure assessment for a receptor, or to omit the MEIW receptor, should be verified in writing with the District or reviewing authority and included in the HRA.

Other sensitive receptor locations may also be of interest and required to be included in the HRA. The District or reviewing authority should be consulted to determine which sensitive receptor locations must be included.

The results from a screening model (if available) can be used to identify the area(s) where the maximum concentrations are likely to occur. Receptor points should also be located at the population centroids (see Section 4.7.2) and sensitive receptor locations (see Section 4.6.4). The exact configuration of the receptor array used in an analysis will depend on the topography, population distribution patterns, and other site-specific factors. All receptor locations should be identified in the HRA using UTM (Universal Transverse Mercator) coordinates and receptor number. The receptor numbers in the summary tables should match receptor numbers in the computer output (e.g., HARP output files). In addition to actual UTM coordinates, the block/street locations (i.e., north side of 3,000 block of Smith Street) should be provided in the HRA for the PMI, MEIR, and MEIW for carcinogenic and noncarcinogenic health effects. Chapter 9 provides an outline that specifies the content and recommended format of HRA results.

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#### 4.7.1.1 Receptor Height

To evaluate localized impacts, receptor height should be taken into account at the point of maximum impact on a case-by-case basis. For example, receptor heights may have to be included to account for receptors significantly above ground level. Flagpole receptors at the height of the breathing zone of a person may need to be considered when the source receptor distance is less than a few hundred meters. Consideration must also be given to the noninhalation pathway analysis which requires modeling of chemical deposition onto soil or water at ground level. For the inhalation pathway, a health protective approach is to select a receptor height from 0 meters to 1.8 meters that will result in the highest predicted downwind concentration. Final approval of this part of the modeling protocol should be with the District or reviewing authority.

#### 4.7.2 Centroid Locations

For each subarea analyzed, a centroid location (the location at which a calculated ambient concentration is assumed to represent the entire subarea) should be determined. When population is uniformly distributed within a population unit, a geographic centroid based on the shape of the population unit can be used. If only a portion of the census tract lies within the isopleth or area of interest, then only the population that falls within the isopleth should be used in the calculation for population exposure. To determine this level of detail, local planning and zoning information may need to be collected. Where populations are not uniformly distributed, a population-weighted centroid may be used. Another alternative uses the concentration at the point of maximum impact within that census tract as the concentration to which the entire population of that census tract is exposed. While this less refined approach is commonly accepted, Districts should be contacted to approve this method prior to its use in a risk assessment.

The centroids represent locations that should be included as receptor points in the dispersion modeling analysis. Annual average concentrations should be calculated at each centroid using the modeling procedures presented in this chapter.

For census tracts and BG/EDs, judgments can be made using census tracts maps and street maps to determine the centroid location. At the block level, a geographic centroid is sufficient.

#### 4.7.3 Spatial Averaging

Since the inception of the "Hot Spots" and California's Air Toxics Programs, HRA results for an individual receptor have typically been based on air dispersion modeling results at a single point or location. With a few exceptions, this method has been traditionally used for all types of receptors (e.g., PMI, MEIR, MEIW, pathway receptors, etc.). The assumptions used in risk assessment are designed to prevent underestimation of health impacts to the public resulting in a health protective approach. However, basing risk estimates on a single highest point (PMI, MEIR, or MEIW) does not take into account that a person does not remain at one location on their property, or in one location at the

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workplace over an extended period of time. Therefore, the average air concentration over a small area is likely to be more representative than using the air concentration at a single point, particularly in those situations where concentrations fall off rapidly around that single point. The concept of averaging air concentrations over a small area is known as spatial averaging.

In order to understand how spatial averaging can impact air dispersion modeling results with various types of facilities, the ARB, in conjunction with the OEHHA, performed sensitivity analyses to evaluate the impacts of spatially averaging air dispersion modeling results (see Appendix C of the Air Toxics Hot Spots Program Risk Assessment Guidelines: Technical Support Document for Exposure Assessment and Stochastic Analysis (EASA)). Based on these sensitivity analyses, it is reasonable and appropriate to include spatial averaging techniques in air toxic risk assessments as supplemental information to Tier 1 information (i.e., modeling results that are based on the air concentration from a single point or location). While all risk assessments must include results based on Tier 1 methodology, the spatially averaged concentrations around the point of interest (e.g., PMI, MEIR, MEIW, multipathway exposure evaluations, etc.) could also be included as an option in risk assessments and acceptable for risk management decisions subject to approval by the District or reviewing agency. Spatial averaging is an option for the purpose of additional refinement to the risk assessment.

A few reasons that support the inclusion of spatially averaged modeled concentrations in risk assessment include the following:

- Averaging results over a small domain will give a more representative picture of individual exposure and risk than an estimate based on one single location within their property.
- Spatial averaging will allow air dispersion modeling and risk assessment results to be characterized as the estimated concentration and risk in a discrete area of interest, rather than an exact value for a single location.
- From a risk communication standpoint, the ARB and OEHHA feel it is more appropriate to present the modeling output and the calculated health impacts as the potential impacts within a small or discrete area, rather than an exact value at a specific point on a grid or map.
- Spatial averaging is the recommended procedure in ARB's Lead Risk Management Guidelines (2001) and has been used in several complex source HRAs [e.g., Roseville Railyard (2004), Ports of LA/LB (2006), Port of Oakland (2008)].
- Spatially averaging the deposition concentrations over pasture land, a garden, or a water body for multipathway exposure scenarios is a planned upgrade for the HARP Software. This will provide an option that will refine multipathway exposure assessments. Average deposition on these types of areas (e.g., a water body) is not necessarily well represented by the single highest point of deposition, or deposition at the geographic center of the water body. Likewise, since produce is grown over the entire surface of the garden and cows graze the



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entire pasture, deposition is better estimated by evaluating the entire area rather than using a single point.

#### 4.7.3.1 Spatial Averaging Methodology

The spatial averaging sensitivity study in Appendix C of the EASA is based on simulating emissions from point, volume, area, and line sources. Most source types (e.g., point) are simulated as a small, medium or large source. Line sources are only simulated as small and large. In addition, meteorological data collected at five different locations in California were used. Nested spatial average grids of various domains were used to study the differences on the spatial average concentration. In the case of the 20 meter by 20 meter spatial average nested grid, the spatial average concentration showed little change over the PMI for medium and large sources. In the case for small sources, the spatial average concentration is approximately 45% to 80% of the PMI concentration. Individual source type and meteorological conditions will cause variations in these results.

The results of the spatial averaging sensitivity study in Appendix C of the EASA shows that sources with low plume rise that result in a PMI, MEIW, or MEIR located at or near the property fence line are most sensitive to spatial averaging. Source types with high plume rise (e.g., tall stacks) show a PMI far downwind where the concentration gradient is more gradual and therefore spatial averaging has a lesser effect. While spatial averaging can be used regardless of source size or the location of the PMI, the following conditions generally apply when a source is a good candidate for spatial averaging:

- The MEIR, MEIW, or PMI is located at the fence line or close to the emission source.
- The concentration gradient is high near the PMI. This is more associated with low level plumes such as fugitive, volume, area, or short stacks.
- A long term average is being calculated to represent a multi-year risk analysis based on one to five years of meteorological data. Note that spatial averaging should **not** be used for short term (acute) calculations.

In general, the method for calculating the spatial average in air toxic risk assessments includes the following steps:

1. Locate the point(s) of interest and receptor(s) (i.e., PMI, MEIW, MEIR, and any additional receptor locations of interest or concern) with a grid resolution spacing of no greater than five meters. To achieve this, two or more modeling runs with successively finer nested grid resolutions may be needed to find the final location where the nested grid that will be used for spatial averaging will be placed.

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2. Center the spatial average nested grid on the each receptor's location of interest determined in step 1. Limit the nested grid to no larger than 20 meters by 20 meters or 400 square meters. Note that if a portion of the centered and nested grid falls within the facility boundary and the receptor location of interest is outside of the boundary, then adjustments to the nested grid to obtain the spatially-averaged concentration for the offsite receptor are reasonable. This may be done by either repositioning the nested grid to cover 400 square meters of off-boundary area surrounding the receptor or center the nested grid and delete any on-site grid points so that only the offsite grid points surrounding the receptor are used in the spatially averaged concentration. The grid resolution spacing should be no greater than five meters. With a five meter grid resolution, the 20 meter by 20 meter domain will result in 25 receptors. The size, shape, and placement of the domain and the resolution of points are subject to approval by the District, ARB, or other reviewing authority. See the Sections 4.7.3.1.2 and 4.7.3.1.3 below for additional discussion on domain sizing and grid spacing at worksites, pastures, gardens, and water bodies.
3. Some configurations of source activity and meteorological conditions result in a predominant downwind plume center line that is significantly askew from one of the four ordinate directions. In this case, a tilted nested grid is necessary to coincide with the dominant plume centerline. Polar receptors are easier to implement than a tilted rectangular grid. The domain of the polar receptor field should be limited to a 15 meter radius. See Appendix C of the EASA for detailed instructions on tilted polar receptors.
4. Calculate the arithmetic mean of the long term period average concentration (e.g., annual average) of the nested grid of receptors to represent the spatial average. This average is used in the risk calculations.
5. Document and include all methods, assumptions, data, maps, and files used in the spatial averaging analysis and clearly present this information in the risk assessment following the requirements of the District or reviewing authority. Note that in the update to the HARP software, functionality will be included that will assist with spatial averaging and the methodology discussed.

The following sections discuss the use of spatial averaging for various receptor types and exposure pathways.

#### 4.7.3.1.1 *Residential Receptors*

Follow the steps in Section 4.7.3 outlining the spatial averaging methodology. To remain health protective when evaluating a residential receptor, spatial averaging should not take place using large nested domains. The domain used for spatial averaging should be no larger than 20 meters by 20 meters with a maximum grid spacing resolution of equal to or less than five meters. This domain represents an area

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that is approximately the size of a small urban lot. The size of the domain and resolution of points shall be subject to approval by the District, ARB, or other reviewing authority.

#### 4.7.3.1.2 Worker Receptors

Offsite worker locations (e.g. MEIW) may also be a candidate for spatial averaging. However, workers can be at the same location during almost their entire daily work shift (e.g., desk/office workers). When this is the situation, then the traditional method of using a single location and corresponding modeled concentration is appropriate. If spatial averaging is used, care should be taken to determine the proper domain size and grid resolution. Follow the steps in Section 4.7.3 outlining the spatial averaging methodology. To be consistent with the residential receptor assumptions and remain health protective, a modeling domain size no larger than 20 meters by 20 meters is recommended with a grid spacing resolution of equal to or less than five meters. However, if workers routinely and continuously move throughout the worksite over a space greater than 20 meters by 20 meters, then a larger domain may be considered.

The HRA or modeling protocol shall support all assumptions used, including, but not limited to, documentation for all workers showing the area where each worker routinely performs their duties and the percentage of time spent in those areas. The final domain size should not be greater than the smallest area of worker movement. Other considerations for determining domain size and grid spacing resolution may include an evaluation of the concentration gradients across the worker area. The grid spacing used within the domain to find the concentration that will be used to calculate health impacts should be sufficient in number and detail to obtain a representative concentration across the area of interest. The size of the domain and resolution of points shall be subject to approval by the District, ARB, or other reviewing authority.

#### 4.7.3.1.3 Pastures, Gardens, or Water Bodies

The simplified approach of using the concentration (deposition rate) at the centroid, a specific point of interest, or the PMI location for an area being evaluated for noninhalation exposures (e.g., a body of water used for fishing, a pasture used for grazing, area of a garden, etc.) is acceptable for use in HRA. However, evaluating deposition concentrations over pasture land, a garden, or a water body for multipathway exposure scenarios using spatial averaging could give more representative estimates of the overall deposition rate. Use of spatial averaging in this application is subject to approval by the District, ARB, or other reviewing authority.

If spatial averaging will be done, follow the steps in Section 4.7.3.1 outlining the spatial averaging methodology. When using spatial averaging over the deposition area, care should be taken to determine the proper domain size to make sure it includes all reasonable areas of potential deposition. The size and shape of the area of interest (e.g., pasture or water body) should be identified and used for the modeling domain. The grid spacing or resolution used within the domain should be sufficient in detail to obtain a representative deposition concentration across the area of interest. One way

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to determine the grid resolution is to include an evaluation of the concentration gradients across the deposition area. The HRA or modeling protocol shall support all assumptions used, including, but not limited to, documentation of the deposition area (e.g., size and shape of the pasture, garden, or water body, maps, representative coordinates, grid resolution, concentration gradients, etc.). The size of the domain and grid resolution is subject to approval by the reviewing authority.

In lieu of following the details in the paragraph above, the approach used for the other receptors (e.g., MEIR, MEIW) that uses a domain size not greater than 20 meters by 20 meters, located on the PMI within the area of interest, with a maximum grid spacing resolution of five meters, can be used. This default refined approach would apply to deposition areas greater than 20 meters by 20 meters. For smaller deposition areas, the simplified approach of using the PMI for the area, the concentration at the centroid or a specific point of interest, or averaging over the actual smaller domain can be used. This again is subject to approval by the reviewing authority.

The HRA or modeling protocol shall support all assumptions used, including, but not limited to, documentation of the deposition area (e.g., size and shape of the water body, pasture, or garden; all data; maps; representative coordinates, and etc.), and the details clarifying how and where the averaging was done (e.g., location and magnitude of concentration gradients, the grid spacing used).

#### 4.8 Meteorological Data

Refined air dispersion models require hourly meteorological data. The first step in obtaining meteorological data should be to check with the District and the ARB for data availability. Other sources of data include the National Weather Service (NWS), National Climatic Data Center (NCDC), Asheville, North Carolina, ARB meteorological database (METDB), military stations and private networks. Meteorological data for a subset of NWS stations are available from the U.S. EPA Support Center for Regulatory Air Models (SCRAM). The SCRAM can be accessed at [www.epa.gov/scram001/main.htm](http://www.epa.gov/scram001/main.htm). All meteorological data sources should be approved by the District. Data not obtained directly from the District or the ARB should be checked for quality, representativeness, and completeness. It should be approved by the District before use. U.S. EPA provides guidance (U.S. EPA, 1995e) for these data. Meteorological data may need further processing. Data users can consult with the District or the ARB on how to process the raw meteorological data. The risk assessment should indicate if the District required the use of a specified meteorological data set. All memos indicating District approval of meteorological data should be attached in an appendix. If no representative meteorological data are available, screening procedures should be used as indicated in Section 4.10.

The analyst should acquire enough meteorological data to ensure that the worst-case meteorological conditions are represented in the model results. The US-EPA Guideline on Air Quality Models (U.S. EPA 2005) prefers that the latest five years of consecutive meteorological data be used to represent long term averages (i.e., cancer and chronic impacts). Previous OEHHa guidance allowed the use of the worst-case year to save



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computer time. The processing speed of modern computers has increased to the point where processing five years of data over one year is no longer burdensome. However, the District may determine that one year of representative meteorological data is sufficient to adequately characterize the facility's impact. This may especially be the case when five years of quality consecutive data are not available.

To determine long term average concentrations the data can be averaged. For calculation of the one-hour maximum concentrations needed to evaluate acute effects, the worst-case year should be used in conjunction with the maximum hourly emission rate. For example, the long term average concentration and one-hour maximum concentration at a single receptor for five years of meteorological data are calculated below:

Year	Annual Average ( $\mu\text{g}/\text{m}^3$ )	Maximum One-Hour ( $\mu\text{g}/\text{m}^3$ )
1	7	100
2	5	80
3	9	90
4	8	110
5	6	90
5-year average	7	

In the above example, the long-term average concentration over five years is  $7 \mu\text{g}/\text{m}^3$ . Therefore,  $7 \mu\text{g}/\text{m}^3$  should be used to evaluate carcinogenic and chronic effects (i.e., annual average concentration). The one-hour maximum concentration is the highest one-hour concentration in the five-year period. Therefore,  $110 \mu\text{g}/\text{m}^3$  is the peak one-hour concentration that should be used to evaluate acute effects.

The higher hourly concentration usually occurs when meteorological dispersion conditions become worse, such as, calm or light wind, inversion, etc. Inversion usually happens in late afternoon through early morning. As the sun goes down, the atmospheric temperature near surface starts to fall, usually faster than the temperature in the upper atmosphere causing a temperature inversion layer to form and extend downward. This inversion layer usually sustains throughout the night, and remains until early morning. Because of the inversion (cold air sitting on warm air at the top of the inversion layer), pollutant vertical mixing is very low in the morning.

When predicted concentrations are high and the mixing height is very low for the corresponding averaging period, the modeling results deserve additional consideration. For receptors in the near field, it is within the model formulation to accept a very low mixing height for short durations. However, it would be unlikely that the very low mixing height would persist long enough for the pollutants to travel into the far field. In the

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event that the analyst identifies any of these time periods, they should be discussed with the District on a case-by-case basis.

#### 4.8.1 Meteorological Data Formats

Most short-term dispersion models require input of hourly meteorological data in a format which depends on the model. U.S. EPA provides software for processing meteorological data for use in U.S. EPA recommended dispersion models. U.S. EPA recommended meteorological processors include the Meteorological Processor for Regulatory Models (MPRM), PCRAMMET, and AERMET. Use of these processors will ensure that the meteorological data used in an U.S. EPA recommended dispersion model will be processed in a manner consistent with the requirements of the model.

Meteorological data for a subset of NWS stations are available on the World Wide Web at the U.S. EPA SCRAM address, <http://www.epa.gov/scram001>.

#### 4.8.2 Treatment of Calms

Calms are hours when the wind speed is below the starting threshold of the anemometer. Gaussian plume models require a wind speed and direction to estimate plume dispersion in the downwind direction.

U.S. EPA's policy is to disregard calms until such time as an appropriate analytical approach is available. The recommended U.S. EPA models contain a routine that eliminates the effect of the calms by nullifying concentrations during calm hours and recalculating short-term and annual average concentrations. Certain models lacking this built-in feature can have their output processed by U.S. EPA's CALMPRO program (U.S. EPA, 1984a) to achieve the same effect. Because the adjustments to the concentrations for calms are made by either the models or the postprocessor, actual measured on-site wind speeds should always be input to the preprocessor. These actual wind speeds should then be adjusted as appropriate under the current U.S. EPA guidance by the preprocessor.

Following the U.S. EPA methodology, measured on-site wind speeds of less than 1.0 m/s, but above the instrument threshold, should be set equal to 1.0 m/s by the preprocessor when used as input to Gaussian models. Calms are identified in the preprocessed data file by a wind speed of 1.0 m/s and a wind direction equal to the previous hour. For input to AERMOD, no adjustment should be made to the site specific wind data. AERMOD can produce model estimates for conditions when the wind speed may be less than 1 m/s but still greater than the instrument threshold. Some air districts provide pre-processed meteorological data for use in their district that treats calms differently. Local air districts should be consulted for available meteorological data. In addition, to reduce the number of calms and missing winds in the surface data, EPA has developed a pre-processor – AERMINUTE – to process 1-minute ASOS wind data for generating hourly average wind speed and directions for input to AERMET in Stage 2. The details can be found in the EPA's AERMINUTE User's Instructions at:



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[http://www.epa.gov/ttn/scram/models/aermod/aerminute\\_userguide\\_v11059\\_draft.pdf](http://www.epa.gov/ttn/scram/models/aermod/aerminute_userguide_v11059_draft.pdf)

If the fraction of calm hours is excessive, then an alternative approach may need to be considered to characterize dispersion. The Calpuff model modeling system can simulate calm winds as well as complex wind flow and therefore is a viable alternative. The local air district should be consulted for alternative approaches.

#### 4.8.3 Treatment of Missing Data

Missing data refer to those hours for which no meteorological data are available from the primary on-site source for the variable in question. When missing values arise, they should be handled in one of the following ways listed below, in the following order of preference:

- (1) If there are other on-site data, such as measurements at another height, they may be used when the primary data are missing. If the height differences are significant, corrections based on established vertical profiles should be made. Site-specific vertical profiles based on historical on-site data may also be appropriate to use if their determination is approved by the reviewing authority. If there is question as to the representativeness of the other on-site data, they should not be used.
- (2) If there are only one or two missing hours, then linear interpolation of missing data may be acceptable, however, caution should be used when the missing hour(s) occur(s) during day/night transition periods.
- (3) If representative off-site data exist, they may be used. In many cases this approach may be acceptable for cloud cover, ceiling height, mixing height, and temperature. This approach will rarely be acceptable for wind speed and direction. The representativeness of off-site data should be discussed and agreed upon in advance with the reviewing authority.
- (4) An imputation methodology may be acceptable, provided it is well-documented, sufficiently justified, and properly applied.
- (5) Failing any of the above, the data field should be coded as missing using missing data codes appropriate to the applicable meteorological pre-processor.

Appropriate model options for treating missing data, if available in the model, should be employed. Substitutions for missing data should only be made in order to complete the data set for modeling applications, and should not be used to attain the "regulatory completeness" requirement of 90%. That is, the meteorological data base must be 90% complete on a monthly basis (before substitution) in order to be acceptable for use in air dispersion modeling. The use of any data substitution technique should be thoroughly documented to provide the District or reviewing authority with all the information necessary to determine its approvability.

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If the recommended methods for addressing missing meteorological data cannot be achieved as described, then alternative approaches should be discussed and developed in conjunction with the District or reviewing authority.

#### 4.8.4 Representativeness of Meteorological Data

The atmospheric dispersion characteristics at an emission source need to be evaluated to determine if the collected meteorological data can be used to adequately represent atmospheric dispersion for the project.

Such determinations are required when the available meteorological data are acquired at a location other than that of the proposed source. In some instances, even though meteorological data are acquired at the location of the pollutant source, they still may not correctly characterize the important atmospheric dispersion conditions.

Considerations of representativeness are always made in atmospheric dispersion modeling whether the data base is "on-site" or "off-site." These considerations call for the judgment of a meteorologist or an equivalent professional with expertise in atmospheric dispersion modeling. If in doubt, the District should be consulted.

##### 4.8.4.1 Spatial Dependence

The location where the meteorological data are acquired should be compared to the source location for similarity of terrain features. For example, in complex terrain, the following considerations should be addressed in consultation with the District:

- Aspect ratio of terrain, i.e., ratio of:
  - Height of valley walls to width of valley;
  - Height of ridge to length of ridge; and
  - Height of isolated hill to width of hill at its base
- Slope of terrain
- Ratio of terrain height to stack/plume height
- Distance of source from terrain (i.e., how close to valley wall, ridge, isolated hill)
- Correlation of terrain feature to prevailing meteorological conditions

Likewise, if the source is located on a plateau or plain, the source of meteorological data used should be from a similar plateau or plain.

Judgments of representativeness should be made only when sites are climatologically similar. Sites in nearby, but different air sheds, often exhibit different weather patterns. For instance, meteorological data acquired along a shoreline are not normally representative of inland sites and vice versa.

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Meteorological data collected need to be examined to determine if drainage, transition, and synoptic flow patterns are characteristics of the source, especially those critical to the regulatory application. Consideration of orientation, temperature, and ground cover should be included in the review.

An important aspect of space dependence is height above the ground. Where practical, meteorological data should be acquired at the release height, as well as above or below, depending on the buoyancy of the source's emissions. AERMOD at a minimum requires wind observations at a height above ground between seven times the local surface roughness height and 100 meters.

#### 4.8.4.2 Temporal Dependence

To be representative, meteorological data must be of sufficient duration to define the range of sequential atmospheric conditions anticipated at a site. As a minimum, one full year of on-site meteorological data is necessary to prescribe this time series. Multiple years of data are used to describe variations in annual and short-term impacts. Consecutive years from the most recent, readily available 5-year period are preferred to represent these yearly variations.

#### 4.8.4.3 Further Considerations

It may be necessary to recognize the non-homogeneity of meteorological variables in the air mass in which pollutants disperse. This non-homogeneity may be essential in correctly describing the dispersion phenomena. Therefore, measurements of meteorological variables at multiple locations and heights may be required to correctly represent these meteorological fields. Such measurements are generally required in complex terrain or near large land-water body interfaces.

It is important to recognize that, although certain meteorological variables may be considered unrepresentative of another site (for instance, wind direction or wind speed), other variables may be representative (such as temperature, dew point, cloud cover). Exclusion of one variable does not necessarily exclude all. For instance, one can argue that weather observations made at different locations are likely to be similar if the observers at each location are within sight of one another - a stronger argument can be made for some types of observations (e.g., cloud cover) than others. Although by no means a sufficient condition, the fact that two observers can "see" one another supports a conclusion that they would observe similar weather conditions.

Other factors affecting representativeness include change in surface roughness, topography and atmospheric stability. Currently there are no established analytical or statistical techniques to determine representativeness of meteorological data. The establishment and maintenance of an on-site data collection program generally fulfills the requirement for "representative" data. If in doubt, the District should be consulted.

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#### 4.8.5 Alternative Meteorological Data Sources

It is necessary, in the consideration of most air pollution problems, to obtain data on site-specific atmospheric dispersion. Frequently, an on-site measurement program must be initiated. As discussed in Section 4.8.3, representative off-site data may be used to substitute for missing periods of on-site data. There are also situations where current or past meteorological records from a National Weather Service station may suffice. These considerations call for the judgment of a meteorologist or an equivalent professional with expertise in atmospheric dispersion modeling. More information on Weather Stations including: National Weather Service (NWS), military observations, supplementary airways reporting stations, upper air and private networks, is provided in "On-Site Meteorological Program Guidance for Regulatory Modeling Applications" (U.S. EPA, 1995e).

#### 4.8.5.1 Recommendations

On-site meteorological data should be processed to provide input data in a format consistent with the particular models being used. The input format for U.S. EPA short-term regulatory models is defined in U.S. EPA's MPRM. The input format for AERMOD is defined in the AERMET meteorological pre-processor. Processors are available on the SCRAM web site. The actual wind speeds should be coded on the original input data set. Wind speeds less than 1.0 m/s but above the instrument threshold should be set equal to 1.0 m/s by the preprocessor when used as input to Gaussian models. Wind speeds below the instrument threshold of the cup or vane, whichever is greater, should be considered calm, and are identified in the preprocessed data file by a wind speed of 1.0 m/s and a wind direction equal to the previous hour. For input to AERMOD, no adjustment should be made to the site specific wind data. AERMOD can produce model estimates for conditions when the wind speed may be less than 1 m/s but still greater than the instrument threshold.

If data are missing from the primary source, they should be handled as follows, in order of preference: (1) substitution of other representative on-site data; (2) linear interpolation of one or two missing hours; (3) substitution of representative off-site data; (4) use of a well-documented and justified imputation methodology; or (5) coding as a missing data field, according to the discussions in Section 4.8.3. The use of any data substitution technique should be thoroughly documented to provide the District or reviewing authority with all the information necessary to determine its approvability.

If the data processing recommendations in this section cannot be achieved, then alternative approaches should be discussed and developed in conjunction with the District or reviewing authority.

#### 4.8.6 Quality Assurance and Control

The purpose of quality assurance and maintenance is the generation of a representative amount (90% of hourly values for a year on a monthly basis) of valid data. For more information on data validation consult reference U.S. EPA (1995e). Maintenance may



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be considered the physical activity necessary to keep the measurement system operating as it should. Quality assurance is the management effort to achieve the goal of valid data through plans of action and documentation of compliance with the plans.

Quality assurance (QA) will be most effective when following a QA Plan which has been signed-off by appropriate project or organizational authority. The QA Plan should contain the following information (paraphrased and particularized to meteorology from Lockhart):

1. Project description - how meteorology data are to be used
2. Project organization - how data validity is supported
3. QA objective - how QA will document validity claims
4. Calibration method and frequency - for data
5. Data flow - from samples to archived valid values
6. Validation and reporting methods - for data
7. Audits - performance and system
8. Preventive maintenance
9. Procedures to implement QA objectives - details
10. Management support - corrective action and reports

It is important for the person providing the quality assurance (QA) function to be independent of the organization responsible for the collection of the data and the maintenance of the measurement systems. Ideally, the QA auditor works for a separate company.

#### 4.9 Model Selection

There are several air dispersion models that can be used to estimate pollutant concentrations and new ones are likely to be developed. U.S. EPA added AERMOD, which incorporates the PRIME downwash algorithm, to the list of preferred models in 2005 as a replacement to ISCST3. CalPuff was added in 2003. The latest version of the U.S. EPA recommended models can be found at the SCRAM Bulletin board located at <http://www.epa.gov/scram001>. However, any model, whether a U.S. EPA guideline model or otherwise, must be approved for use by the local air district. Recommended models and guidelines for using alternative models are presented in this section. All air dispersion models used to estimate pollutant concentrations for risk assessment analyses must be in the public domain. Classification according to terrain, source type and level of analysis is necessary before selecting a model (see Section 4.4). The selection of averaging times in the modeling analysis is based on the health effects of concern. Annual average concentrations are required for an analysis of carcinogenic or other chronic effects. One-hour maximum concentrations are required for analysis of acute effects.

##### 4.9.1 Recommended Models

Recommended air dispersion models to estimate concentrations for risk assessment analyses are generally referenced in US EPA's Guideline on Air Quality Models

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available at <http://www.epa.gov/scram001>. Currently AERMOD is recommended for most refined risk assessments in flat or complex terrain and in rural or urban environments<sup>1</sup>. In addition, CalPuff is available where spatial wind fields are highly variable or transport distances are large (e.g., 50 km). AERSCREEN is a screening model based on AERMOD. AERSCREEN can be used when representative meteorological data are unavailable. CTSCREEN is available for screening risk assessments in complex terrain. The most current version of the models should be used for risk assessment analysis. Some facilities may also require models capable of special circumstances such as dispersion near coastal areas. For more information on modeling special cases see Sections 4.12 and 4.13.

Most air dispersion models contain provisions that allow the user to select among alternative algorithms to calculate pollutant concentrations. Only some of these algorithms are approved for regulatory application such as the preparation of health risk assessments. The sections in this guideline that provide a description of each recommended model contain information on the specific switches and/or algorithms that must be selected for regulatory application.

To further facilitate the model selection, the District should be consulted for additional recommendations on the appropriate model(s) or a protocol submitted for District review and approval (see Section 4.14.1).

#### 4.9.2 Alternative Models

Alternative models are acceptable if applicability is demonstrated or if they produce results identical or superior to those obtained using one of the preferred models referenced in Section 4.9.1. For more information on the applicability of alternative models refer to the following documents:

- U.S. EPA (2005). "Guideline on Air Quality Models" Section 3.2.2
- U.S. EPA (1992). "Protocol for Determining the Best Performing Model"
- U.S. EPA (1985a). "Interim Procedures for Evaluating Air Quality Models – Experience with Implementation"
- U.S. EPA (1984b). "Interim Procedures for Evaluating Air Quality Models (Revised)"

#### 4.10 Screening Air Dispersion Models

A screening model may be used to provide a maximum concentration that is biased toward overestimation of public exposure. Use of screening models in place of refined modeling procedures is optional unless the District specifically requires the use of a refined model. Screening models are normally used when no representative meteorological data are available and may be used as a preliminary estimate to determine if a more detailed assessment is warranted.

<sup>1</sup> AERMOD was promulgated by U.S. EPA as a replacement to ISCST3 on November 9, 2006.



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Some screening models provide only 1-hour average concentration estimates. Other averaging periods can be estimated based on the maximum 1-hour average concentration in consultation and approval of the responsible air district. Because of variations in local meteorology, the exact factor selected may vary from one district to another. Table 4.2 provides guidance on the range and typical values applied. The conversion factors are designed to bias predicted longer term averaging periods towards overestimation.

**Table 4.2 Recommended Factors to Convert Maximum 1-hour Avg. Concentrations to Other Averaging Periods (U.S. EPA, 2011, 1995a; ARB, 1994).**

Averaging Time	Range	Typical SCREEN3 Recommended	AERSCREEN Recommended
3 hours	0.8 - 1.0	0.9	1.0
8 hours	0.5 - 0.9	0.7	0.9
24 hours	0.2 - 0.6	0.4	0.6
30 days	0.2 - 0.3	0.3	
Annual	0.06 - 0.1	0.08	0.1

AERSCREEN automatically provides the converted concentration for longer than 1-hour averaging periods. For area sources, the AERSCREEN 3, 8, and 24-hour average concentration are equal to the 1-hour concentration. No annual average concentration is calculated. SCREEN3 values are shown for comparison purposes.

#### 4.10.1 AERSCREEN

The AERSCREEN (U.S. EPA, 2011) model is now available and should be used in lieu of SCREEN3 with approval of the local District. AERSCREEN is a screening level air quality model based on AERMOD. AERSCREEN does not require the gathering of hourly meteorological data. Rather, AERSCREEN requires the use of the MAKEMET program which generates a site specific matrix of meteorological conditions for input to the AERMOD model. MAKEMET generates a matrix of meteorological conditions based on local surface characteristics, ambient temperatures, minimum wind speed, and anemometer height.

AERSCREEN is currently limited to modeling a single point, capped stack, horizontal stack, rectangular area, circular area, flare, or volume source. More than one source may be modeled by consolidating the emissions into one emission source.

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#### 4.10.2 Valley Screening

The Valley model is designed to simulate a specific worst-case condition in complex terrain, namely that of a plume impaction on terrain under stable atmospheric conditions. The algorithms of the VALLEY model are included in other models such as SCREEN3 and their use is recommended in place of the VALLEY model. The usefulness of the VALLEY model and its algorithms is limited to pollutants for which only long-term average concentrations are required. For more information on the Valley model consult the user's guide (Burt, 1977).

##### 4.10.2.1 Regulatory Options

Regulatory application of the Valley model requires the setting of the following values during a model run:

- Class F Stability (rural) and Class E Stability (urban)
- Wind Speed = 2.5 m/s
- 6 hours of occurrence of a single wind direction (not exceeding a 22.5 deg sector)
- 2.6 stable plume rise factor

#### 4.10.3 CTSCREEN

The CTSCREEN model (Perry et al., 1990) is the screening mode of the Complex Terrain Dispersion Model (CTDMPLUS). CTSCREEN can be used to model single point sources only. It may be used in a screening mode for multiple sources on a case by case basis in consultation with the District. CTSCREEN is designed to provide conservative, yet theoretically sounder, worst-case 1-hour concentration estimates for receptors located on terrain above stack height. Internally-coded time-scaling factors are applied to obtain other averages (see Table 4.3). These factors were developed by comparing the results of simulations between CTSCREEN and CTDMPLUS for a variety of scenarios and provide conservative estimates (Perry et al., 1990). CTSCREEN produces identical results as CTDMPLUS if the same meteorology is used in both models. CTSCREEN accounts for the three-dimensional nature of the plume and terrain interaction and requires detailed terrain data representative of the modeling domain. A summary of the input parameters required to run CTSCREEN is given in Table 4.4. The input parameters are provided in three separate text files. The terrain topography file (TERRAIN) and the receptor information file (RECEPTOR) may be generated with a preprocessor that is included in the CTSCREEN package. In order to generate the terrain topography file the analyst must have digitized contour information.



**Table 4.3 Time-scaling factors internally coded in CTSCREEN**

Averaging Period	Scaling Factor
3 hours	0.7
24 hour	0.15
Annual	0.03

**Table 4.4 Input Parameters Required to Run CTSCREEN**

Parameter	File
Miscellaneous program switches	CTDM.IN
Site Latitude and Longitude (degrees)	CTDM.IN
Site TIME_ZONE	CTDM.IN
Meteorology Tower Coordinates (user units)	CTDM.IN
Source Coordinates: x and y (user units)	CTDM.IN
Source Base Elevation (user units)	CTDM.IN
Stack Height (m)	CTDM.IN
Stack Diameter (m)	CTDM.IN
Stack Gas Temperature (K)	CTDM.IN
Stack Gas Exit Velocity (m/s)	CTDM.IN
Emission Rate (g/s)	CTDM.IN
Surface Roughness for each Hill (m)	CTDM.IN
Meteorology: Wind Direction (optional)	CTDM.IN
Terrain Topography	TERRAIN
Receptor Information (coordinates and associated hill number)	RECEPTOR

#### 4.11 Refined Air Dispersion Models

Refined air dispersion models are designed to provide more representative concentration estimates than screening models. In general, the algorithms of refined models are more robust and have the capability to account for site-specific meteorological conditions. For more information regarding general aspects of model selection see Section 4.9.

##### 4.11.1 AERMOD

For a wide variety of applications in all types of terrain, the recommended model is AERMOD. AERMOD is a steady-state plume dispersion model for assessment of pollutant concentrations from a variety of sources. AERMOD simulates transport and dispersion from multiple point, area, or volume sources based on an up-to-date characterization of the atmospheric boundary layer. Sources may be located in rural or urban areas and receptors may be located in simple or complex terrain. AERMOD accounts for building wake effects (i.e., plume downwash) based on the PRIME building downwash algorithms. The model employs hourly sequential preprocessed meteorological data to estimate concentrations for averaging times from one hour to one year (also multiple years). AERMOD is designed to operate in concert with two pre-processor codes: AERMET processes meteorological data for input to AERMOD, and AERMAP processes terrain elevation data and generates receptor information for input to AERMOD. Guidance on input requirements may be found in the AERMOD Users Guide.

##### 4.11.1.1 Regulatory Options

U.S. EPA regulatory application of AERMOD requires the selection of specific switches (i.e., algorithms) during a model run. All the regulatory options can be set by selecting the DFAULT keyword. The U.S. EPA regulatory options, automatically selected when the DFAULT keyword is used, are:

- Stack-tip downwash
- Incorporates the effects of elevated terrain
- Includes calms and missing data processing routines
- Does not allow for exponential decay for applications other than a 4-hour half life for SO<sub>2</sub>

Additional information on these options is available in the AERMOD User's Guide.

##### 4.11.1.2 Special Cases

- Building Downwash:**  
AERMOD automatically determines if the plume is affected by the wake region of buildings when their dimensions are given. The specification of building dimensions does not necessarily mean that there will be downwash. See



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Section 4.13.1 for guidance on how to determine when downwash is likely to occur.

b. Area Sources:

The area source algorithm in AERMOD estimates source emission strength by integrating an area upwind of the receptor location. Receptors may be placed within the area itself, downwind of the area or adjacent to the area. However, since the vertical distribution parameter ( $\sigma_z$ ) goes to zero as the downwind distance goes to zero, the plume function solution is infinite for a downwind receptor distance of zero. In order to avoid such singularity in the plume function solution, the AERMOD model arbitrarily sets the plume function to zero when the receptor distance is less than one meter. As a result, the area source algorithm will not provide reliable solutions for receptors located within or adjacent to very small areas, with dimensions on the order of a few meters across. In these cases, the receptor should be placed at least one meter outside of the area.

c. Volume Sources:

The volume source algorithms in AERMOD require an estimate of the initial distribution of the emission source. The initial distribution of emissions for a volume source is in the horizontal and vertical directions. When modeling volume source emissions, one needs to provide initial horizontal ( $\sigma_{y0}$ ) and vertical ( $\sigma_{z0}$ ) dimensions as accurate as possible so that pollutant buoyancy and dispersion are also calculated accurately. US EPA's AERMOD User Guide provides suggested procedures to estimate these initial dimensions based on source type (Table 3-1) (U.S. EPA, 2004a).

d. Line Sources:

Examples of line sources include conveyor belts or roads. Depending on the source, these can be modeled three ways; as a line source, as a series of volume sources, or as an elongated area source. Where the emission source is neutrally buoyant, such as a conveyor belt, AERMOD can be used according to the user guide. In the event that the line source is a roadway, then additional considerations are required.

At the present time, CALINE (CALINE3, CAL3QHCR, and CALINE4) is the only model dedicated to modeling the enhanced mechanical and thermal turbulence created by motor vehicles traveling on a roadway. Of these, CAL3QHCR is the only model that accepts hourly meteorological data and can estimate annual average concentrations. However, CALINE uses the Pasquill-Gifford stability categories which are used in the ISCST model. AERMOD is now the preferred plume model over ISCST3 with continuous plume dispersion calculations based on observations but AERMOD does not include the enhanced roadway turbulence. Therefore, in the case where roadway emissions dominate the risk assessment, it may be most important to simulate the enhanced thermal and mechanical turbulence from motor vehicles with the CAL3QHCR model.

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In the case where roadway emissions are a subset of all emissions for the risk assessment, including roadway emissions along with facility emissions, it may be best to use AERMOD for all emissions, roadway and facility, in order to maintain continuity with one dispersion model for the risk assessment. If AERMOD is used, it is important to consider that a major freeway may act similar to a large building which can cause some mixing and therefore initial vertical dispersion. This dispersion could be estimated with sensitivity studies based on wind speed, wind angle, roadway orientation, roadway width, and etc. This could be a complex estimation and needs very adept modeling skills. Roadway modeling should be evaluated on a case-by-case basis in consultation with the District or the reviewing authority.

Line sources inputs include a composite fleetwide emission factor, roadway geometry, hourly vehicle activity (i.e., diurnal vehicle per hour pattern), hourly meteorological data, and receptor placement. For practical information on how to simulate roadway emissions using these models, see CAPCOA's website at <http://www.capcoa.org> or the Sacramento Metropolitan AQMD (SMAQMD) website at <http://www.airquality.org/ceqa/RoadwayProtocol.shtml>. The SMAQMD has a document titled, "Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways" (January, 2010).

e. Complex Terrain:

AERMOD uses the Dividing Streamline (Hc) concept for complex terrain. Above Hc, the plume is assumed to be "terrain following" in the convective boundary layer. Below Hc, the plume is assumed to be "terrain impacting" in the stable boundary layer. AERMOD computes the concentration at any receptor as a weighted function between the two plume states (U.S. EPA, 2004b).

f. Deposition:

AERMOD contains algorithms to model settling and deposition and requires additional information to do so including particle size distribution. For more information consult the AERMOD User's Guide (U.S. EPA, 2004a).

g. Diurnal Considerations:

Systematic diurnal changes in atmospheric conditions are expected along the coast (or any large body of water) or in substantially hilly terrain. The wind speed and direction are highly dependent on time of day as the sun rises and begins to heat the Earth. The sun heats the surface of the land faster than the water surface. Therefore the air above the land warms up sooner than over water. This creates a buoyant effect of warm air rising over land and the cool air from over water moves in to fill the void. Near large bodies of water (e.g., the ocean) this is known as a sea breeze. In complex terrain this is known as upslope flow as the hot air follows the terrain upwards. When the sun sets and the surface of the land begins to cool, the air above also cools and creates a draining effect. Near the water this is the land breeze; in complex terrain this is known as downslope or drainage flow. In addition, for the sea breeze, the atmospheric

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conditions change rapidly from neutral or stable conditions over water to unstable conditions over land.

Near the large bodies of water the sea breeze is typical in the afternoon and the land breeze is typical for the early morning before sunrise. In complex terrain upslope flow is typical in the afternoon, while drainage flow is typical at night. Diurnal profiles need to be evaluated in conjunction with the facility emissions since sources can have varied emission profiles (e.g., some sources are continuously emitting while others are intermittent). These intermittent emission profiles may be influenced by diurnal patterns; therefore, they need to be evaluated to properly estimate potential exposures. For these reasons, it is especially important to simulate facility emissions with a hourly diurnal pattern reflective of source activity so that the risk assessment is representative of daily conditions.

- h. 8-hour Modeling for the Offsite Worker's Exposure and Residential Exposure:  
If the ground level air concentrations from a facility operating 5 days a week, 8 hours per day have been estimated by a 24 hour per day annual average, an adjustment factor can be applied to estimate the air concentration that an offsite worker with the same schedule would be exposed to. The 24-hour annual average concentration is multiplied times 4.2.

If the meteorology during the time that the facility is emitting is used, hourly model simulations need to be post-processed to cull out the data needed for the offsite worker exposure. See Appendix M for information on how to calculate the refined offsite worker concentrations using the hourly raw results from the AERMOD air dispersion model. For more discussion on worker exposure, see Section 4.8.1.

Eight-hour exposure modeling can be used to evaluate the potential for health impacts (including effects of repeated exposures) in children and teachers exposed during school hours. Although not required in the HRA, 8-hour exposure modeling could also be performed at the discretion of the District to a residential scenario (i.e., the MEIR) where a facility operates only a portion of the day and exposure to residences are not adequately reflected by averaging concentrations over a 24 hour day.

#### 4.11.1.3 HARP Dispersion Analysis

It is highly recommended that air dispersion analysis be performed using the HARP software. HARP can perform refined dispersion analysis by utilizing the U.S. EPA standard program AERMOD. In the future, the updated version of HARP will link the AERMOD outputs with risk assessment modules.

#### 4.11.2 CTDMPLUS

CTDMPLUS is a Gaussian air quality model for use in all stability conditions in complex terrain. In comparison with other models, CTDMPLUS requires considerably more

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detailed meteorological data and terrain information that must be supplied using specifically designed preprocessors. CTDMPLUS was designed to handle up to 40 point sources.

#### 4.12 Modeling to Obtain Concentrations used for Various Health Impacts

The following section outlines how emissions and air dispersion modeling results are used or adjusted for a receptor that is exposed to either a non-continuous or continuously emitting source.

##### 4.12.1 Emission Rates for Cancer, Chronic, and Acute Health Impacts

As discussed in Section 4.2.1.1, the HRA should include both annual average emissions and maximum 1-hour emissions for each pollutant emitted by the facility. Maximum 1-hour emissions are used for acute noncancer health impacts while annual emissions are used for chronic exposures (i.e., chronic and 8-hour noncancer health impacts or cancer risk assessment). When applying the emission rates in the air dispersion analysis, it is important not to artificially inflate or deplete the reported emission inventory.

For annual average emissions, the emissions are spread evenly over the entire year for continuous emitting sources. However, for sources where the emission patterns vary (i.e., non-continuous emitting sources), the emission rate should also account for the facility's emission schedule. If appropriate, the variable emissions rate option (e.g., hour-of-day) should be used in the air dispersion analysis. For more information consult the AERMOD User's Guide (U.S. EPA, 2004a). Also, when calculating emission rates for acute health impacts, it is important the emission rates never exceed the reported maximum 1-hour emissions.

##### 4.12.2 Modeling and Adjustments for Inhalation Cancer Risk at a Worksite

Modeled long-term averages are typically used for cancer risk assessments for residents and workers. In an inhalation cancer risk assessment for an offsite worker, the long-term average should represent what the worker breathes during their work shift. However, the long-term averages calculated from AERMOD typically represent exposures for receptors that were present 24 hours a day and seven days per week (i.e., the schedule of a residential receptor). To estimate the offsite worker's concentration, there are two approaches. The more refined, complex, and time consuming approach is to post-process the hourly raw dispersion model output and examine the hourly concentrations that fall within the offsite worker's shift. See Appendix M for information on how to simulate the long-term concentration for the offsite worker that can be used to estimate inhalation cancer risk.

In lieu of post-processing the hourly dispersion model output, the more typical approach is to obtain the long-term average concentration as you would for modeling a residential receptor and approximate the worker's inhalation exposure using an adjustment factor. The actual adjustment factor that is used to adjust the concentration may differ from the example below based on the specifics of the source and worker receptor

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(e.g., work-shift overlap). Once the worker's inhalation concentration is determined, the inhalation dose is calculated using additional exposure frequency and duration adjustments. See Chapter 5 for more information on the inhalation dose equation.

#### 4.12.2.1 Non-Continuous Sources

When modeling a non-continuously emitting source (e.g., operating for eight hours per day and five days per week), the modeled long-term average concentrations are based on 24 hours a day and seven days per week for the period of the meteorological data set. Even though the emitting source is modeled using a non-continuous emissions schedule, the long-term concentration is still based on 24 hours a day and seven days per week. Thus, this concentration includes the zero hours when the source was not operating. For the offsite worker inhalation risk, we want to determine the long-term concentration the worker is breathing during their work shift. Therefore, the long-term concentration needs to be adjusted so it is based only on the hours when the worker is present. For example, assuming the emitting source and worker's schedules are the same, the adjustment factor is  $4.2 = (24 \text{ hours per day} / 8 \text{ hours per shift}) \times (7 \text{ days in a week} / 5 \text{ days in a work week})$ . In this example, the long term residential exposure is adjusted upward to represent the exposure to a worker. Additional concentration adjustments may be appropriate depending on the work shift overlap. These adjustments are discussed below.

The calculation of the adjustment factor from a non-continuous emitting source is summarized in the following steps.

- Obtain the long-term concentrations from air dispersion modeling as is typical for residential receptors (all hours of a year for the entire period of the meteorological data set).
- Determine the coincident hours per day and days per week between the source's emission schedule and the offsite worker's schedule.
- Calculate the worker adjustment factor (WAF) using Equation 4.1. When assessing inhalation cancer health impacts, a discount factor (DF) may also be applied if the offsite worker's schedule partially overlaps with the source's emission schedule. The discount factor is based on the number of coincident hours per day and days per week between the source's emission schedule and the offsite worker's schedule (see Equation 4.2). The DF is always less than or equal to one.

Please note that worker adjustment factor does not apply if the source's emission schedule and the offsite worker's schedule do not overlap. Since the worker is not present during the time that the source is emitting, the worker is not exposed to the source's emission (i.e., the DF in Equation 4.2 becomes 0).

$$WAF = \frac{H_{\text{residential}}}{H_{\text{source}}} \times \frac{D_{\text{residential}}}{D_{\text{source}}} \times DF \quad \text{Eq. 4.1}$$

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Where:

WAF = the worker adjustment factor

$H_{\text{residential}}$  = the number of hours per day the long-term residential concentration is based on (always 24 hours)

$H_{\text{source}}$  = the number of hours the source operates per day

$D_{\text{residential}}$  = the number of days per week the long-term residential concentration is based on (always 7 days)

$D_{\text{source}}$  = the number of days the source operates per week

DF = a discount factor for when the offsite worker's schedule partially overlaps the source's emission schedule. Use 1 if the offsite worker's schedule occurs within the source's emission schedule. If the offsite worker's schedule partially overlaps with the source's emission schedule, then calculate the discount factor using Equation 4.2 below.

$$DF = \frac{H_{\text{coincident}}}{H_{\text{worker}}} \times \frac{D_{\text{coincident}}}{D_{\text{worker}}} \quad \text{Eq. 4.2}$$

Where:

DF = the discount factor for assessing cancer impacts

$H_{\text{coincident}}$  = the number of hours per day the offsite worker's schedule and the source's emission schedule overlap

$D_{\text{coincident}}$  = the number of days per week the offsite worker's schedule and the source's emission schedule overlap

$H_{\text{worker}}$  = the number of hours the offsite worker works per day

$D_{\text{worker}}$  = the number of days the offsite worker works per week

- The final step is to estimate the offsite worker's inhalation concentration by multiplying the worker adjustment factor with the long-term residential concentration. The worker's concentration is then plugged into the dose equation and risk calculation.

The HARP software has the ability to calculate worker impacts using an approximation factor and, in the future, it will have the ability to post-process refined worker concentrations using the hourly raw results from an air dispersion analysis.

#### 4.12.2.2 Continuous Sources

If the source is continuously emitting, then the worker is assumed to breathe the long-term annual average concentration during their work shift. Equation 4.1 becomes one and no concentration adjustments are necessary in this situation when estimating the inhalation cancer risk. Note however, if an assessor does not wish to apply the assumption the worker breathes the long-term annual average concentration during the work shift, then a refined concentration can be post-processed as described in Appendix M. All alternative assumptions should be approved by the reviewing authority and supported in the presentation of results.

#### 4.12.3 Modeling and Adjustments for Noncancer 8-Hour RELs

For 8-hour noncancer health impacts, we evaluate if the receptor (e.g., worker or resident) is exposed to an 8 hour average concentration, occurring daily, that exceeds the 8-hour REL. The 8 hour RELs were derived primarily for the offsite worker scenario. Although not required in an HRA, residential receptors can be evaluated with an 8-hour

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REL at the discretion of the District or Reviewing authority. For ease, we use a worker receptor in this discussion and in the discussion below for a non-continuously emitting source. The daily average concentration is intended to represent the long-term average concentration the worker is breathing during the work shift. In general, there are two approaches for estimating the concentration used for the 8-hour hazard index. The more refined, complex, and time consuming approach is to post-process the hourly dispersion model output and use only the hourly concentrations that are coincident with the offsite worker hours to obtain the long-term concentration. See Appendix M for information on how to simulate the daily average concentration through air dispersion modeling.

Before proceeding through a refined analysis described in Appendix M, the assessor may wish to approximate the long-term concentration, as described below, and calculate the 8-hour hazard index. In lieu of post-processing the hourly dispersion model output described in Appendix M, the more typical approach is to obtain the long-term average concentration as you would for modeling a residential receptor and approximate the worker's inhalation concentration using an adjustment factor. The method for applying the adjustment factor is described in the section below.

The results from the 8-hour hazard index calculations should not be combined with the chronic or acute hazard indices. Each of the potential noncancer health impacts should be reported independently. See Chapter 8 for more discussion on calculating health impacts.

#### 4.12.3.1 Non-Continuous Sources

When modeling a non-continuously emitting source (e.g., operating for eight hours per day and five days per week), the modeled long-term average concentrations are based on 24 hours a day and seven days per week for the period of the meteorological data set. Even though the emitting source is modeled using a non-continuous emissions schedule, the long-term concentration is still based on 24 hours a day and seven days per week. Thus, this concentration includes the zero hours when the source was not operating. For the offsite worker 8-hour hazard index, we want to determine the long-term average daily concentration the worker may be breathing during their work shift. This is similar to the cancer approximation adjustment method with one difference; there is no adjustment for partial overlap between the worker's schedule and the source's emission schedule. The reason for this difference in methodology is because the 8-hour REL health factors are designed for repeated 8-hour exposures and cannot readily be adjusted to other durations of exposure. The 8-hour RELs should be used for typical daily work shifts of 8-9 hours. For further questions, assessors should contact OEHHA, the District, or reviewing authority to determine if the 8-hour RELs should be used in your HRA. Any discussions or directions to exclude the 8-hour REL evaluation should be documented in the HRA.

When calculating the long-term average daily concentration for the 8-hour REL comparison, the long-term residential concentration needs to be adjusted so it is based only on the operating hours of the emitting source with the assumption the offsite

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worker's shift falls within the emitting source's schedule. For example, assuming the emitting source operates 8 hours per day, 5 days per week and the offsite worker's schedules falls anywhere within this period of emissions, then the adjustment factor is  $4.2 = (24 \text{ hours per day} / 8 \text{ hours of emissions per day}) \times (7 \text{ days in a week} / 5 \text{ days of emissions per week})$ . In this example, the long term residential exposure is adjusted upward to represent the 8-hour exposure to a worker. No adjustments are applied for partial work shift overlap with the emitting source. If the source emits at night, then see Appendix N for additional recommendations.

Using the approximation factor is a screening method. If the 8-hour hazard index is above a threshold of concern with this method, the district or assessor should contact OEHHA for further guidance regarding the substance of concern. If necessary, further evaluation can be performed using the refined daily average modeling methodology discussed in Appendix M.

The calculation of the adjustment factor from a non-continuous emitting source is summarized in the following steps.

- b. Obtain the long-term concentrations from air dispersion modeling as is typical for residential receptors (all hours of a year for the entire period of the meteorological data set).
- c. Calculate the worker adjustment factor (WAF) using Equation 4.3. The source's emission schedule is assumed to overlap offsite worker's schedule. Note that the worker adjustment factor and the 8-hour inhalation REL do not apply if the source's emission schedule and the offsite worker's schedule do not overlap at some point.

$$WAF = \frac{H_{\text{residential}}}{H_{\text{source}}} \times \frac{D_{\text{residential}}}{D_{\text{source}}} \quad \text{Eq. 4.3}$$

Where:

WAF = the worker adjustment factor  
 $H_{\text{residential}}$  = the number of hours per day the long-term residential concentration is based on (always 24 hours)  
 $H_{\text{source}}$  = the number of hours the source operates per day  
 $D_{\text{residential}}$  = the number of days per week the long-term residential concentration is based on (always 7 days).  
 $D_{\text{source}}$  = the number of days the source operates per week.

- d. The final step is to estimate the offsite worker's daily average inhalation concentration by multiplying the WAF with the long-term residential concentration. The worker's concentration is then used to calculate the 8-hour hazard index. This method using the approximation factor is a screening method. If the 8-hour hazard index is above a threshold of concern, the district or assessor should contact OEHHA for further guidance regarding the substance of concern.



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In the future, the HARP software will have the ability to use 8-hour RELs, calculate worker impacts using an approximation factor, and to post-process worker concentrations using the hourly raw results from an air dispersion analysis.

#### 4.12.3.2 Continuous Sources

If the source is continuously emitting, then the worker is assumed to breathe the long-term annual average concentration during their work shift and no concentration adjustments are made when estimating 8-hour health impacts. Note however, if an assessor does not wish to assume the worker breathes the long-term annual average concentration during the work shift, then a refined concentration can be post-processed as described in Appendix M. All alternative assumptions should be approved by the reviewing authority and supported in the presentation of results.

Note that 8-hour RELs are not typically used for continuously emitting sources for residential receptors. In this situation it is only necessary to estimate a chronic Hazard Index using the annual average concentrations and chronic RELs. However, there may be situations where the District may wish to assess an 8-hour Hazard Index, for example, where there are significant differences in modeled concentration of emissions during the day due to diurnal wind patterns.

#### 4.12.4 Modeling and Adjustment Factors for Noncancer Chronic RELs

Potential chronic noncancer health impacts use the long-term annual average concentration regardless of the emitting facility's schedule. No adjustment factors should be used to adjust this concentration. Chronic RELs are used to assess not only residential health impacts, but in many cases worker health impacts as well. There are currently only a limited number of substances with an 8-hour inhalation REL, and a facility may emit only, or mostly, substances that currently have just a chronic REL. Until there are 8-hour RELs for all the Hot Spots substances emitted from a specified facility, we recommend determining the chronic HI for the MEIOW to adequately protect the offsite worker.

The results from the chronic hazard index calculations are not combined with the 8-hour or acute hazard indices. All potential noncancer results should be reported independently. See Chapter 8 for more discussion on calculating health impacts.

#### 4.12.5 Modeling and Adjustments for Oral Cancer Potencies and Oral RELs

When estimating the cancer risk or noncancer health impacts from noninhalation pathways, no adjustment is made to the long-term annual average concentration regardless of the emitting facility's schedule. Since the media (e.g., soil) at the receptor location where deposition takes place for noninhalation pathways is continuously present, the concentrations used for all noninhalation pathways are not adjusted (up or down) by an adjustment factor. However, some adjustments are made to the concentration once the pollutants reach the media, for example, pollutants undergo decay in soils. In addition, when the dose for each pathway is calculated, exposure adjustments may also be made. See Chapter 5 of this document and the Technical

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Support Document for Exposure Assessment and Stochastic Analysis (OEHHA, 2012) to get more information on these types of adjustments. Oral cancer potencies and oral RELs are used to assess both residential or worker health impacts.

#### 4.12.6 Modeling One-Hour Concentrations using Simple and Refined Acute Calculations

Modeled one-hour concentrations are needed for the acute health hazard index calculations. HARP has two methods to calculate this concentration: Simple and Refined. As an aid to understanding the differences between Simple and Refined, Figure 2 shows three possible conditions showing how wind direction may vary and impact a downwind receptor (i,j) differently from just two sources (A and B).

For the Simple calculation, HARP stores only the maximum one-hour concentration at each receptor (i,j) from each source (A and B) as the dispersion model marches down each hour of the simulation (e.g., one to five years of hourly data). At the end of the simulation period, HARP reports back only the maximum impacts at each receptor from each source regardless of which hour of the simulation period this occurred. For example, the Simple Maximum Acute Impacts would be the summation of Source A impacts from Wind Direction 1 and Source B impacts from Wind Direction 2 as shown in Figure 2.

For the Refined simulation, HARP stores each hourly concentration at each receptor (i,j) from each source. At the end of the simulation period, HARP evaluates the coincident impact at each receptor from all sources for each hour of the simulation period. In this case the maximum impacts will be identified by a particular hour of the period with associated wind speed, direction, and atmospheric conditions. For example, the Refined Maximum Acute impact from Sources A and B on receptor (i,j) could be from any wind direction (1,2, or 3) as shown in Figure 2. Since HARP stores all simulations for all sources – at all receptors – for all hours to calculate the refined impacts, there is great potential to fill large amounts of disk storage space. The Refined simulation provides a more representative picture of the maximum acute hazard index from a facility. The Simple calculation will provide an upper bound to the acute hazard index.

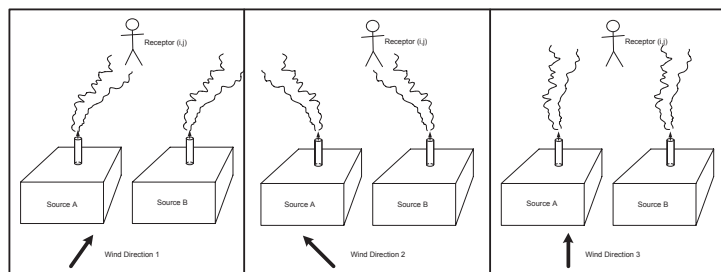


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Figure 2 Acute Scenarios



#### 4.13 Modeling Special Cases; Specialized Models

Special situations arise in modeling some sources that require considerable professional judgment; a few are outlined below. It is recommended that the reader consider retaining professional consultation services if the procedures are unfamiliar. The following sections, taken mostly from the document "On-Site Meteorological Program Guidance for Regulatory Modeling Applications" (U.S. EPA, 1995e), provide general information on data formats and representativeness. Some Districts may have slightly different recommendations from those given here.

##### 4.13.1 Building Downwash

The entrainment of a plume in the wake of a building can result in the "downwash" of the plume to the ground. This effect can increase the maximum ground-level concentration downwind of the source. Therefore, stack sources must be evaluated to determine whether building downwash is a factor in the calculation of maximum ground-level concentrations.

The PRIME algorithm, included with AERMOD, has several advances in modeling building downwash effects including enhanced dispersion in the wake, reduced plume rise due to streamline deflection and increased turbulence, and continuous treatment of the near and far wakes (Schulman, 2000).

Complicated situations involving more than one building may necessitate the use of the Building Profile Input Program (BPIP) which can be used to generate the building dimension section of the input file of the ISC models (U.S. EPA, 1993). The BPIP program calculates each building's direction-specific projected width. The Building Profile Input Program for PRIME (BPIPPRM) is the same as BPIP but includes an algorithm for calculating downwash values for input into the PRIME algorithm which is contained in such models as AERMOD. The input structure of BPIPPRM is the same as that of BPIP.

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#### 4.13.2 Deposition

There are two types of deposition: wet deposition and dry deposition. Wet deposition is the incorporation of gases and particles into rain-, fog- or cloud water followed by a precipitation event and also rain scavenging of particles during a precipitation event. Wet deposition of gases is therefore more important for water soluble chemicals; particles (and hence particle-phase chemicals) are efficiently removed by precipitation events (Bidleman, 1988). Dry deposition refers to the removal of gases and particles from the atmosphere.

In the Air Toxics "Hot Spots" program, deposition is quantified for particle-bound pollutants and not gases. Wet deposition of water-soluble gas phase chemicals is thus not considered. When calculating pollutant mass deposited to surfaces without including depletion of pollutant mass from the plume, airborne concentrations remaining in the plume and deposition to surfaces can be overestimated, thereby resulting in overestimates of both the inhalation and multi-pathway risk estimates. However, neglecting deposition in the air dispersion model, while accounting for it in the multipathway health risk assessment, is a conservative, health protective approach (CAPCOA, 1987; Croes, 1988). Misapplication of plume depletion can also lead to possible underestimates of multi-pathway risk and for that reason no depletion is the default assumption. If plume depletion is incorporated, then some consideration for possible resuspension is warranted. An alternative modeling methodology accounting for plume depletion can be discussed with the Air District and used in an approved modeling protocol.

Although not generally used, several air dispersion models can provide downwind concentration estimates that take into account the upwind deposition of pollutants to surfaces and the consequential reduction of mass remaining in the plume. Air dispersion models having deposition and plume depletion algorithms require particle distribution data that are not always readily available. These variables include particle size, mass fraction, and density for input to AERMOD. In addition, the meteorological fields need to include additional parameters including relative humidity, precipitation, cloud cover, and surface pressure. Consequently, depletion of pollutant mass from the plume often is not taken into account.

In conclusion, multipathway risk assessment analyses normally incorporate deposition to surfaces in a screening mode, specifically by assigning a default deposition velocity of 2 cm/s for controlled sources and 5 cm/s for uncontrolled sources in lieu of actual measured size distributions (ARB, 1989). For particles (and particle-phase chemicals), the deposition velocity depends on particle size and is minimal for particles of diameter approximately 0.1-1 micrometer; smaller and larger particles are removed more rapidly.

##### 4.13.3 Short Duration Emissions

Short-duration emissions (i.e., much less than an hour) require special consideration. In general, "puff models" provide a better characterization of the dispersion of pollutants having short-duration emissions. Continuous Gaussian plume models have traditionally

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been used for averaging periods as short as about 10 minutes and are not recommended for modeling sources having shorter continuous emission duration.

#### 4.13.4 Fumigation

Fumigation occurs when a plume that was originally emitted into a stable layer in the atmosphere is mixed rapidly to ground-level when unstable air below the plume reaches plume level. Fumigation can cause very high ground-level concentrations. Typical situations in which fumigation occurs are:

- Breaking up of a nocturnal radiation inversion by solar warming of the ground surface (rising warm unstable air); note that the break-up of a nocturnal radiation inversion is a short-lived event and should be modeled accordingly.
- Shoreline fumigation caused by advection of pollutants from a stable marine environment to an unstable inland environment
- Advection of pollutants from a stable rural environment to a turbulent urban environment

SCREEN3 incorporates concentrations due to inversion break-up and shoreline fumigation and is limited to maximum hourly evaluations. The Offshore and Coastal Dispersion Model incorporates overwater plume transport and dispersion as well as changes that occur as the plume crosses the shoreline – hourly meteorological data are needed from both offshore and onshore locations.

#### 4.13.5 Raincap on Stack

The presence of a raincap or any obstacle at the top of the stack hinders the momentum of the exiting gas. The extent of the effect is a function of the distance from the stack exit to the obstruction and of the dimensions and shape of the obstruction.

On the conservative side, the stack could be modeled as having a non-zero, but negligible exiting velocity, effectively eliminating any momentum rise. Such an approach would result in final plume heights closer to the ground and therefore higher concentrations nearby. There are situations where such a procedure might lower the actual population-dose and a comparison with and without reduced exit velocity should be examined.

Plume buoyancy is not strongly reduced by the occurrence of a raincap. Therefore, if the plume rise is dominated by buoyancy, it is not necessary to adjust the stack conditions. (The air dispersion models determine plume rise by either buoyancy or momentum, whichever is greater.)

The stack conditions should be modified when the plume rise is dominated by momentum and in the presence of a raincap or a horizontal stack. Sensitivity studies with the SCREEN3 model, on a case-by-case basis, can be used to determine whether

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plume rise is dominated by buoyancy or momentum. The District should be consulted before applying these procedures.

- Set exit velocity to 0.001 m/sec
- Turn stack tip downwash off
- Reduce stack height by 3 times the stack diameter

Stack tip downwash is a function of stack diameter, exit velocity, and wind speed. The maximum stack tip downwash is limited to three times the stack diameter in the AERMOD air dispersion model. In the event of a horizontal stack, stack tip downwash should be turned off and no stack height adjustments should be made. Note: This approach may not be valid for large (several meter) diameter stacks.

An alternative, more refined, approach could be considered for stack gas temperatures which are slightly above ambient (e.g., ten to twenty degrees Fahrenheit above ambient). In this approach, the buoyancy and the volume of the plume remain constant and the momentum is minimized.

- Turn stack tip downwash off
- Reduce stack height by 3 times the stack diameter ( $3D_o$ )
- Set the stack diameter ( $D_b$ ) to a large value (e.g., 10 meters)
- Set the stack velocity to  $V_b = V_o (D_o/D_b)^2$

Where  $V_o$  and  $D_o$  are the original stack velocity and diameter and  $V_b$  and  $D_b$  are the alternative stack velocity and diameter for constant buoyancy. This approach is advantageous when  $D_b \gg D_o$  and  $V_b \ll V_o$  and should only be used with District approval.

In the presence of building downwash and in the event that PRIME downwash is being utilized in AERMOD, an alternative approach is recommended. PRIME algorithms use the stack diameter to define initial plume radius and to solve conservation laws. The user should input the actual stack diameter and exit temperature but set the exit velocity to a nominally low value (e.g., 0.001 m/s). Also since PRIME does not explicitly consider stack-tip downwash, no adjustments to stack height should be made.

Currently U.S. EPA is BETA testing options for capped and horizontal releases in AERMOD. It is expected that these options will replace the above guidance when BETA testing is complete.

#### 4.13.6 Landfill Sites

Landfills should be modeled as area sources. The possibility of non-uniform emission rates throughout the landfill area should be investigated. A potential cause of non-uniform emission rates would be the existence of cracks or fissures in the landfill cap (where emissions may be much larger). If non-uniform emissions exist, the landfill should be modeled with several smaller areas assigning an appropriate emission factor to each one of them, especially if there are nearby receptors (distances on the same order as the dimensions of the landfill).



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#### 4.14 Specialized Models

Some models have been developed for application to very specific conditions. Examples include models capable of simulating sources where both land and water surfaces affect the dispersion of pollutants and models designed to simulate emissions from specific industries.

##### 4.14.1 Buoyant Line and Point Source Dispersion Model (BLP)

BLP is a Gaussian plume dispersion model designed for the unique modeling problems associated with aluminum reduction plants, and other industrial sources where plume rise and downwash effects from stationary line sources are important.

##### 4.14.1.1 Regulatory Application

Regulatory application of BLP model requires the selection of the following options:

- rural (IRU=I) mixing height option;
- default (no selection) for all of the following: plume rise wind shear (LSHEAR), transitional point source plume rise (LTRANS), vertical potential temperature gradient (DTHTA), vertical wind speed power law profile exponents (PEXP), maximum variation in number of stability classes per hour (IDELS), pollutant decay (DECFA), the constant in Briggs' stable plume rise equation (CONST2), constant in Briggs' neutral plume rise equation (CONST3), convergence criterion for the line source calculations (CRIT), and maximum iterations allowed for line source calculations (MAXIT); and
- terrain option (TERAN) set equal to 0.0, 0.0, 0.0, 0.0, 0.0, 0.0.

For more information on the BLP model consult the user's guide (Schulman and Scire, 1980).

##### 4.14.2 Offshore and Coastal Dispersion Model (OCD)

OCD (DiCristofaro and Hanna, 1989) is a straight-line Gaussian model developed to determine the impact of offshore emissions from point, area or line sources on the air quality of coastal regions. OCD incorporates "over-water" plume transport and dispersion as well as changes that occur as the plume crosses the shoreline. Hourly meteorological data are needed from both offshore and onshore locations. Additional data needed for OCD are water surface temperature, over-water air temperature, mixing height, and relative humidity.

Some of the key features include platform building downwash, partial plume penetration into elevated inversions, direct use of turbulence intensities for plume dispersion, interaction with the overland internal boundary layer, and continuous shoreline fumigation.

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#### 4.14.2.1 Regulatory Application

OCD has been recommended for use by the Minerals Management Service for emissions located on the Outer Continental Shelf (50 FR 12248; 28 March 1985). OCD is applicable for over-water sources where onshore receptors are below the lowest source height. Where onshore receptors are above the lowest source height, offshore plume transport and dispersion may be modeled on a case-by-case basis in consultation with the District.

##### 4.14.3 Shoreline Dispersion Model (SDM)

SDM (PEI, 1988) is a hybrid multipoint Gaussian dispersion model that calculates source impact for those hours during the year when fumigation events are expected using a special fumigation algorithm and the MPTER regulatory model for the remaining hours.

SDM may be used on a case-by-case basis for the following applications:

- tall stationary point sources located at a shoreline of any large body of water;
- rural or urban areas;
- flat terrain;
- transport distances less than 50 km;
- 1-hour to 1-year averaging times.

#### 4.15 Interaction with the District

The risk assessor must contact the District to determine if there are any specific requirements. Examples of such requirements may include, but are not limited to: specific receptor location guidance, specific usage of meteorological data, and specific report format (input and output). See Chapter 9 for more information on the format and content of modeling protocols and HRAs.

##### 4.15.1 Submittal of Modeling Protocol

It is strongly recommended that a modeling protocol be submitted to the District for review and approval prior to extensive analysis with an air dispersion model. The modeling protocol is a plan of the steps to be taken during the air dispersion modeling process. Following is an example of the format that may be followed in the preparation of the modeling protocol. **Consult with the District to confirm format and content requirements or to determine the availability of District modeling guidelines before submitting the protocol.**

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**Outline for a Modeling Protocol**

**I. Introduction**

***Include the facility name, address, and a brief overview describing the facility's operations.***

- Provide a description of the terrain and topography surrounding the facility and potential receptors.
- Indicate the format in which data will be provided. Ideally, the report and summary of data will be on paper and all data and model input and output files will be provided electronically (e.g., compact disk or CD).
- Identify the guidelines used to prepare the protocol (e.g., District Guidelines).

**II. Emissions**

***For each pollutant and process whose emissions are required to be quantified in the HRA, list the annual average emissions (pounds/year and grams/second) and the maximum one-hour emissions (pounds/hour and grams/second)<sup>2</sup>. Maximum 1-hour emissions are used for acute noncancer health impacts while annual emissions are used for chronic exposures (i.e., chronic and 8-hour noncancer health impacts or cancer risk assessment).***

- Identify the reference and method(s) used to determine emissions (e.g., source tests, emission factors, etc.). Clearly indicate any emission data that are not reflected in the previously submitted emission inventory report. In this event, a revised emission inventory report will need to be submitted to the District.
- Identify if this will be a multipathway assessment based on emitted substances.

**III. Models / Modeling Assumptions**

***Specify the model and modeling assumptions***

- Identify the model(s) to be used, including the version number.
- Identify the model options that will be used in the analysis.

<sup>2</sup> Except radionuclides, for which annual and hourly emissions are reported in Curies/year and millicuries/hour, respectively.

- Identify the modeling domain(s) and the spacing of receptor grid(s). Grid spacing should be sufficient in number and detail to capture the concentration at all of the receptors of interest.
- Indicate complex terrain options that may be used, if applicable.
- Identify the source type(s) that will be used to represent the facility's operations (e.g., point, area, or volume sources, flare options or other).
- Indicate the preliminary source characteristics (e.g., stack height, gas temperature, exit velocity, dimensions of volume source, etc.).
- Identify and support the use of urban or rural dispersion coefficients for those models that require dispersion coefficients. For other models, identify and support the parameters required to characterize the atmospheric dispersion due to land characteristics (e.g., surface roughness, Monin-Obukhov length).

**IV. Meteorological Data**

***Specify the type, source, and year(s) of hourly meteorological data (e.g., hourly surface data, upper air mixing height information).***

- State how the data are representative for the facility site.
- Describe QA/QC procedures.
- Identify any gaps in the data; if gaps exist, describe how the data gaps are filled.

**V. Deposition**

- Specify the method to calculate deposition (if applicable).

**VI. Receptors**

***Specify the type and location of receptors. Include all relevant information describing how the individual and population-related receptors will be evaluated.***

- Identify and describe the location(s) of known or anticipated potential sensitive receptors, the point of maximum impact (PMI), and the maximum exposed individual residential (MEIR) and worker (MEIW) receptors. Identify any special considerations or grids that will be used to model these receptors. This information should correspond with information provided in Section III (e.g., fine receptor spacing of 20 meters at the fence line and centered on the maximum impacts; coarse receptor spacing of 100 meters out to 2,000 meters; extra coarse spacing of 1,000 meters out to 20,000 meters).



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- Identify if spatial averaging will be used. Include necessary background information on each receptor including how the domain and spacing will be determined for each receptor or exposure pathway.
- Describe how the cancer burden or population impact estimates are calculated. Clarify the same information for the presentation of noncancer population impacts (e.g., centroids of the census tracts in the area within the zone of impact).
- Specify that actual UTM coordinates and the block/street locations (i.e., north side of 3,000 block of Smith Street), where possible, will be provided for specified receptor locations.
- Identify and support the use of any exposure adjustments (e.g., time a location, diurnal).
- Include the list of anticipated exposure pathways that will be included and indicate which substance will be evaluated in the multipathway assessment. Identify if sensitive receptors are present and which receptors will be evaluated in the HRA.

#### VII. Maps

##### *Identify how the information will be graphically presented.*

- Indicate which cancer risk isopleths will be plotted for the cancer zone of impact (e.g.,  $10^{-7}$ ,  $10^{-6}$  see Section 4.6.1).
- Indicate the hazard quotients or hazard indices to be plotted for the noncancer acute, 8 hour, and chronic zones of impact (e.g., 0.5, 1.0, etc.).

#### 4.16 Health Risk Assessment Report

This section describes the information related to the air dispersion modeling process that needs to be reported in the risk assessment. This section is also presented in Chapter 9, Summary of the Requirements for a Modeling Protocol and a Health Risk Assessment Report, in Section 9.2. The District may have specific requirements regarding format and content (see Section 4.15). Sample calculations should be provided at each step to indicate how reported emissions data were used. Reviewing agencies must receive input, output, and supporting files of various model analyses on computer-readable media (e.g., CD).

##### 4.16.1 Information on the Facility and its Surroundings

Report the following information regarding the facility and its surroundings:

- Facility Name

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- Location (UTM coordinates and street address)
- Land use type (see Section 2.4)
- Local topography
- Facility plot plan identifying:
  - source locations
  - property line
  - horizontal scale
  - building heights
  - emission sources

#### 4.16.2 Source and Emission Inventory Information<sup>3</sup>

##### 4.16.2.1 Release Parameters

Report the following information for each release location in table format:

- Release location identification number
- Release name
- Release type (e.g., point, volume, area, line, pit, etc.)
- Source identification number(s) used by the facility that emit out of this release location
- Release location using UTM coordinates
- Release parameters by release type (e.g., shown for point source):
  - Stack height (m), stack diameter (building dimensions for downwash), exhaust gas exit velocity (m/s), exhaust gas volumetric flow rate (ACFM), exhaust gas exit temperature (K), etc.

##### 4.16.2.2 Source Description and Operating Schedule

The description and operating schedule for each source should be reported in table form including the following information:

- Source identification number used by the facility
- Source name
- Number of operating hours per day and per year (e.g., 0800-1700, 2700 hr/yr)
- Number of operating days per week (e.g., Mon-Sat)
- Number of operating days or weeks per year (e.g., 52 wk/yr excluding major holidays)
- Release point identification number(s) for where source emissions are released

<sup>3</sup> Health and Safety Code section 44346 authorizes facility operators to designate certain "Hot Spots" information as trade secret. Section 44361(a) requires districts to make health risk assessments available for public review upon request. Section 44346 specifies procedures to be followed upon receipt of a request for the release of trade secret information. See also the Inventory Guidelines Report regarding the designation of trade secret information in the Inventory Reports.

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- Fraction of source emissions emitted at each release point by release point ID number

#### 4.16.2.3 Emission Control Equipment and Efficiency

Report emission control equipment and efficiency by source and by substance

#### 4.16.2.4 Emissions Data Grouped By Source

Report emission rates for each toxic substance, grouped by source (i.e., emitting device or process identified in Inventory Report), in table form including the following information:

- Source name
- Source identification number
- Substance name and CAS number (from Inventory Guidelines)
- Annual average emissions for each substance (lb/yr)
- Hourly maximum emissions for each substance (lb/hr)

#### 4.16.2.5 Emissions Data Grouped by Substance

Report facility total emission rate by substance for all emitted substances listed in the Air Toxics "Hot Spots" Program including the following information:

- Substance name and CAS number (from Inventory Guidelines)
- Annual average emissions for each substance (lb/yr)
- Hourly maximum emissions for each substance (lb/hr)

#### 4.16.2.6 Emission Estimation Methods

Report the methods used in obtaining the emissions data indicating whether emissions were measured or estimated. Clearly indicate any emission data that are not reflected in the previously submitted emission inventory report and submit a revised emission inventory report to the district. A reader should be able to reproduce the risk assessment without the need for clarification.

#### 4.16.2.7 List of Substances

Include tables listing all "Hot Spots" Program substances which are emitted, plus any other substances required by the District. Indicate substances to be evaluated for cancer risks and noncancer health impacts.

### 4.16.3 **Exposed Population and Receptor Location**

Report the following information regarding exposed population and receptor locations. See Chapter 9 and specific sections within this chapter for more detailed information.

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- Description of zone of impact including map showing the location of the facility, boundaries of zone of impact, census tracts, emission sources, sites of maximum exposure, and the location of all appropriate receptors. This should be a true map (one that shows roads, structures, etc.), drawn to scale, and not just a schematic drawing. USGS 7.5 minute maps or GIS based maps are usually the most appropriate choices. (If significant development has occurred since the user's survey, this should be indicated.)
- Separate maps for the cancer risk zone of impact and the hazard index (noncancer) zone of impact(s). The cancer zone of impact should include isopleths down to at least the 1/1,000,000 risk level. Because some districts use a level below 1/1,000,000 to define the zone of impact, the District should be consulted. Three separate maps (to represent both chronic, 8-hour, and acute HI) should be created to define the zone of impact for the hazard index from both inhalation and noninhalation pathways greater than or equal to 0.5. The point of maximum impact (PMI), maximum exposed individual at a residential receptor (MEIR), the maximum exposed individual worker (MEIW), and any other locations of interest for both cancer and noncancer risks should be located on the maps.
- Tables identifying population units and sensitive receptors (UTM coordinates, receptor IDs, and street addresses of specified receptors).
- Heights or elevations of the receptor points.
- For each receptor type (e.g., PMI, MEIR, MEIW, and any other location(s) of interest) that will utilize spatial averaging, the domain size and grid resolution must be clearly identified. If another domain or grid resolution other than 20 meters by 20 meters with 5-meter grid spacing will be used for a receptor, then care should be taken to determine the proper domain size and grid resolution that should be used. For a worker, the HRA shall support all assumptions used, including, but not limited to, documentation for all workers showing the area where each worker routinely performs their duties. The final domain size should not be greater than the smallest area of worker movement. Other considerations for determining domain size and grid spacing resolution may include an evaluation of the concentration gradients across the worker area. The grid spacing used within the domain should be sufficient in number and detail to obtain a representative concentration across the area of interest. When spatial averaging over the deposition area of a pasture, garden, or water body, care should be taken to determine the proper domain size to make sure it includes all reasonable areas of potential deposition. The size and shape of the pasture, garden, or water body of interest should be identified and used for the modeling domain. The grid spacing or resolution used within the domain should be sufficient in detail to obtain a representative deposition concentration across the area of interest. One way to determine the grid resolution is to include an evaluation of the concentration gradients across the deposition area. The HRA shall support all assumptions used, including, but not limited to, documentation of the deposition area (e.g., size and shape of the pasture or water body, maps,

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representative coordinates, grid resolution, concentration gradients, etc.). The use or spatial averaging is subject to approval by the reviewing authority. This includes the size of the domain and grid resolution that is used for spatial averaging of a worksite or multipathway deposition area.

**4.16.4 Meteorological Data**

If meteorological data were not obtained directly from the District, then the report must clearly indicate the data source and time period used. Meteorological data not obtained from the District must be submitted in electronic form along with justification for their use including information regarding representativeness and quality assurance.

The risk assessment should indicate if the District required the use of a specified meteorological data set. All memos indicating the District's approval of meteorological data should be attached in an appendix.

**4.16.5 Model Selection and Modeling Rationale**

The report should include an explanation of the model chosen to perform the analysis and any other decisions made during the modeling process. The report should clearly indicate the name of the models that were used, the level of detail (screening or refined analysis) and the rationale behind the selection.

Also report the following information for each air dispersion model used:

- version number
- selected options and parameters in table form
- Identify the modeling domain(s) and the spacing of receptor grid(s). Grid spacing should be sufficient in number and detail to capture the concentration at all receptors of interest.

**4.16.6 Air Dispersion Modeling Results**

- Maximum hourly and annual average concentrations of chemicals at appropriate receptors such as the residential and worker MEI receptors
- Annual average and maximum one-hour (and 30-day average for lead only) concentrations of chemicals at appropriate receptors listed and referenced to computer printouts of model outputs
- Model printouts (numbered), annual concentrations, maximum hourly concentrations
- Disk with input/output files for air dispersion program (e.g., the AERMOD input file containing the regulatory options and emission parameters, receptor locations, meteorology, etc.)
- Include tables that summarize the annual average concentrations that are calculated for all the substances at each site. The use of tables that present the relative contribution of each emission point to the receptor concentration is recommended. (These tables should have clear reference to the computer

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model which generated the data. It should be made clear to any reader how data from the computer output were transferred to these tables.) [As an alternative, the above two tables could contain just the values for sites of maximum impact (i.e., PMI, MEIR and MEIW), and sensitive receptors, if required. All the values would be found in the Appendices.]

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#### 4.17 References

Auer Jr., A.H. (1978). Correlation of land use and cover with meteorological anomalies. *Journal of Applied Meteorology*, 17(5):636-643.

ARB (1994). ARB memorandum dated 4/11/94 from A. Ranzieri to J. Brooks on the subject, "One-hour to Thirty-day Average Screening Factor."

ARB (1989). "Screening Deposition Velocities," Internal memorandum from A. Ranzieri to G. Shiroma dated 8/17/89.

Bidleman, T.F. (1988). Atmospheric processes. *Environmental Science & Technology*, 22(4):361-367.

Bjorklund, J.R. and J.F. Bowers (1982). User's Instructions for the SHORTZ and LONGZ Computer Programs, Volumes I and II. EPA-903/9-82-004A and B. U.S. Environmental Protection Agency. Philadelphia, PA.

Burt, E.W. (1977). Valley Model User's Guide. EPA-450/2-77-018. U.S. Environmental Protection Agency, Research Triangle Park, NC.

CAPCOA (1987). "Deposition Rate Calculations for Air Toxics Source Assessments," in *Air Toxics Assessment Manual*, Appendix C.7.

Catalano, J.A., D.B. Turner and H. Novak (1987). User's Guide for RAM - Second Edition. U.S. Environmental Protection Agency. Research Triangle Park, NC. (Distributed as part of UNAMAP Version 6 Documentation)

Chico, T. and J. A. Catalano (1986). Addendum to the User's Guide for MPTER. U. S. Environmental Protection Agency. Research Triangle Park, NC.

Croes, B. (1988). "Deposition Rate Calculations for Air Toxic Risk Assessments in California," Proceedings of the 81st Annual Meeting of the Air Pollution Control Association, Dallas, TX, June 20-24, 1988.

DiCristofaro, D. C. and S. R. Hanna (1989). OCD: The Offshore and Coastal Dispersion Model, Version 4. Volume I: User's Guide, and Volume II: Appendices. Sigma Research Corporation, Westford, MA. (NTIS Nos. PB 93-144384 and PB 93-144392)

Irwin, J.S. (1978). Proposed Criteria for Selection of Urban Versus Rural Dispersion Coefficients. (Draft Staff Report). Meteorology and Assessment Division. U.S. Environmental Protection Agency, Research Triangle Park, NC. (Docket No. A-80-46, II-B-8).

OEHHA (2012). Air Toxics Hot Spots Program Risk Assessment Guidelines; Technical Support Document for Exposure Assessment and Stochastic Analysis. Available online at <http://www.oehha.ca.gov>

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### Air Toxics Hot Spots Program Guidance Manual

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PEI Associates (1988). User's Guide to SDM - A Shoreline Dispersion Model. U.S. EPA Publication No. EPA-450/4-88-017. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Perry, S.G., D.J. Burns, A.J. Cimorelli (1990). User's Guide to CTDMPPLUS: Volume 2. The Screening Mode (CTSCREEN). EPA-600/8-90-087. Office of Research and Development, U.S. Environmental Protection Agency, Research Triangle Park, NC.

Pierce, T.E., D.B. Turner, J.A. Catalano, and F.V. Hale (1982). PTPLU - A Single Source Gaussian Dispersion Algorithm User's Guide. EPA-600/8-82-014. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Pierce, T.E. (1986). Addendum to PTPLU - A Single Source Gaussian Dispersion Algorithm. EPA/600/8-86-042. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Schulman, L.L., and J.S. Scire (1980). Buoyant Line and Point Source (BLP) Dispersion Model User's Guide. Document P-7304B. Environmental Research and Technology, Inc., Concord, MA. (NTIS No. PB 81-164642)

Schulman, L.L., Strimaitis, D. G., and Scire, J. S. (2000). Development and evaluation of the PRIME plume rise and building downwash model. *Journal of the Air and Waste Management Association*, 50:378-390.

Tikvart, J. (1993). "Proposal for Calculating Plume Rise for Stacks with Horizontal Releases or Rain Caps for Cookson Pigment, Newark, New Jersey," Internal memorandum from J. Tikvart to K. Eng dated 7/9/93.

Turner, D. and J.H. Novak (1978). User's Guide for RAM. Vol. 1. Algorithm Description and Use, Vol. II. Data Preparation and Listings. EPA-600/8-78-016a and b. U.S. Environmental Protection Agency, Research Triangle Park, NC.

U.S. EPA (1984a). Calms Processor (CALMPRO) User's Guide. EPA-901/9-84-001. U.S. Environmental Protection Agency, Region I, Boston, MA.

U.S. EPA (1984b). Interim Procedures for Evaluating Air Quality Models (Revised). EPA-450/4-84-023. U.S. Environmental Protection Agency, Research Triangle Park, NC. (NTIS No. PB 85-106060)

U.S. EPA (1985a). Interim Procedures for Evaluating Air Quality Models: Experience with Implementation. U.S. EPA Publication No. EPA-450/4-85-006. U.S. Environmental Protection Agency, Research Triangle Park, NC. (NTIS No. PB 85-242477)

U.S. EPA (1985b). Guideline for Determination of Good Engineering Practice Stack Height (Technical Support Document for the Stack Height Regulations) - Revised EPA-450/4-80-023R, U.S. Environmental Protection Agency, Research Triangle Park, NC.



## O-MBA20L7

### Air Toxics Hot Spots Program Guidance Manual

February 2015

U.S. EPA (1992). Protocol for Determining the Best Performing Model. U.S. EPA Publication No. EPA-454/R-92-025. U.S. Environmental Protection Agency, Research Triangle Park, NC.

U.S. EPA (1993). User's Guide to the Building Profile Input Program (BPIP). Revised February, 1995. EPA-454/R-93-038. U.S. Environmental Protection Agency, Research Triangle Park, NC.

U.S. EPA (1995a). Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised. EPA-450/R-92-019. U.S. Environmental Protection Agency, Research Triangle Park, NC.

U.S. EPA (1995b). User's Guide for the Industrial Source Complex (ISC) Dispersion Models. Volume I: User Instructions. EPA-454/B-95-003a. U.S. Environmental Protection Agency, Research Triangle Park, NC.

U.S. EPA (1995c). User's Guide for the Industrial Source Complex (ISC) Dispersion Models. Volume II: User Instructions. EPA-454/B-95-003a. U.S. Environmental Protection Agency, Research Triangle Park, NC.

U.S. EPA (1995d). SCREEN3 Model User's Guide. EPA-454/B-95-004. U.S. Environmental Protection Agency. Research Triangle Park, NC.

U.S. EPA (1995e). On-Site Meteorological Program Guidance For Regulatory Modeling Applications. EPA-450/4-87-013. U.S. Environmental Protection Agency, Research Triangle Park, NC.

U.S. EPA (2004a). User's Guide for the AMS/EPA Regulatory Model - AERMOD. EPA-454/B-03-001. U.S. Environmental Protection Agency, Research Triangle Park, NC.

U.S. EPA (2004b). AERMOD: Description of Model Formulation. EPA-454/R-03-004. U.S. Environmental Protection Agency, Research Triangle Park, NC.

U.S. EPA (2005). Federal Register / Volume 70, Number 216 / November 9, 2005 / Rules and Regulations, 40 CFR Part 51 Appendix W, Revision to the Guideline on Air Quality Models, U.S. Environmental Protection Agency.

U.S. EPA (2009). AERMOD Implementation Guide. Last Revised: March 19, 2009. AERMOD Implementation Workgroup, U. S. Environmental Protection Agency. Online at: [http://www.epa.gov/ttn/scram/7thconf/aermod/aermod\\_implmnt\\_guide\\_19March2009.pdf](http://www.epa.gov/ttn/scram/7thconf/aermod/aermod_implmnt_guide_19March2009.pdf)

U.S. EPA (2011). AERSCREEN User's Guide. EPA-454/B-11-001. U.S. Environmental Protection Agency, Research Triangle Park, NC.

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## 5 - Exposure Assessment Estimation of Concentration and Dose

### 5.1 Introduction

This chapter provides a summary of how toxicant ground level air concentrations estimated from air dispersion modeling or monitoring results are used to determine dose at receptors of interest. This chapter includes all the algorithms and data (e.g., point estimates, distributions, and transfer factors) that are needed to determine the substance-specific concentration in exposure media and the dose at a receptor of interest. The determination of exposure concentration and dose precedes the calculations of potential health impacts. See Chapter 8 and Appendix I for information on calculating potential health impacts.

At a minimum, three receptors are evaluated in Hot Spots health risk assessments (HRA) (see Section 4.7); these are:

- the Point of Maximum Impact (PMI),
- the Maximally Exposed Individual Resident (MEIR), and
- the Maximally Exposed Individual Worker (MEIW).

The PMI is defined as the receptor point(s) with the highest acute, 8-hour, chronic, or cancer health impact outside the facility boundary. The facility boundary is defined as the property line. Often the fence is on the property line. The MEIR is typically defined as the existing off-site residence(s) (i.e., house, apartment or other dwelling) with the highest acute, chronic, or cancer health impact. Calculating an 8-hour hazard index is not required for the MEIR, but can be performed at the discretion of the District. The MEIW is typically defined as the existing offsite workplace with the highest acute, 8-hour, chronic, or cancer health impact.

In addition, it may be necessary to determine risks at sensitive receptors (e.g., schools, day care centers, elder care centers, and hospitals). The District or reviewing authority should be consulted in order to determine the appropriate sensitive receptors for evaluation. Some situations may require that on-site receptor (worker or residential) locations be evaluated. Some examples where the health impacts of on-site receptors may be appropriate could be military base housing, prisons, universities, or locations where the public may have regular access for the appropriate exposure period (e.g., a lunch time café or museum for acute exposures). The risk assessor should contact the Air Pollution Control or Air Quality Management District (the District) for guidance about any on-site exposure situations at the emitting facility. These on-site locations should be included in the health risk assessment (HRA). If the facility emits multiple substances from two or more stacks, the acute, 8-hour, chronic, and cancer health impacts at the PMI may be located at different physical locations. The MEIR or MEIW cancer, acute, 8-hour, and chronic receptors may also be at different locations.



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The process for determining dose at the receptor location, and ultimately potential health impacts, will likely include air dispersion modeling, and, with less frequency, air monitoring data. Air dispersion modeling combines the facility emissions and release parameters and uses default or site-specific meteorological conditions to estimate downwind, ground-level concentrations at various (user-defined) receptor locations. Air dispersion modeling is described in Chapter 4 and is presented in detail in the *Air Toxics Hot Spots Program Risk Assessment Guidelines; Technical Support Document for Exposure Assessment and Stochastic Analysis* (OEHHA, 2012a).

In summary, the process of using air dispersion modeling results as the basis of an HRA follows these four steps:

- Air dispersion modeling is used to estimate annual average and maximum one-hour ground level concentrations (GLC). The air dispersion modeling results are expressed as an air concentration or in terms of (Chi over Q) for each receptor point. (Chi over Q) is the modeled downwind air concentration (Chi) based on an emission rate of one gram per second (Q). (Chi over Q) is expressed in units of micrograms per cubic meter per gram per second, or  $(\mu\text{g}/\text{m}^3)/(\text{g}/\text{s})$ . (Chi over Q) is sometimes written as  $(\chi/Q)$  and is sometimes referred to as the dilution factor.
- When multiple substances are evaluated, the  $\chi/Q$  is normally utilized since it is based on an emission rate of one gram per second. The  $\chi/Q$  at the receptor point of interest is multiplied by the substance-specific emission rate (in g/s) to yield the substance-specific ground-level concentration (GLC) in units of  $\mu\text{g}/\text{m}^3$ . The following equations illustrate this point.

$$\text{GLC} = \left( \frac{\chi}{Q} \right) \times (Q_{\text{substance}})$$

$$\frac{\chi}{Q} = (\text{Chi over Q}) \text{ in } \left( \frac{\mu\text{g}/\text{m}^3}{\text{g}/\text{s}} \right), \text{ from model results with unit emission rate}$$

$$Q_{\text{substance}} = \text{substance specific emission rate} \left( \frac{\text{g}}{\text{s}} \right)$$

- The applicable exposure pathways (e.g., inhalation, soil contact, fish consumption) are identified for the emitted substances, and the receptor locations are identified. This determines which exposure algorithms in this chapter are ultimately used to estimate dose. After the exposure pathways are identified, the fate and transport algorithms described in this chapter are used to estimate concentrations in the applicable exposure media (e.g., soil or water) and the exposure algorithms are used to determine the substance-specific dose.
- The dose is used with cancer and noncancer health values to calculate the potential health impacts for the receptor (Chapter 8). An example calculation

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using the high-end point-estimates for the inhalation (breathing) exposure pathway can be found in Appendix I. Appendix I and Chapters 5 (this Section) and 8 also contain information on how the annual average and maximum one-hour ground level concentrations are used for chronic, 8-hour, and acute health risk calculations.

The algorithms in this chapter are also used to calculate media concentrations and dose in the rare instance, for the Hot Spots program, when monitoring equipment was used rather than air dispersion modeling to obtain a receptor's substance-specific GLC. One situation that is specific to monitored data is the treatment of results below the sampling method level of detection (LOD). In short, it is standard risk assessment practice when monitoring results are reported both above and below the LOD to use one-half of the LOD for those sample concentrations reported below the LOD. If all testing or monitoring results fall below the LOD, then assessors should contact the District for appropriate procedures. For more information about reporting emissions under the Hot Spots Program, see the ARB's *Emission Inventory Criteria and Guidelines Regulations* (Title 17, *California Code of Regulations, Sections 93300-93300.5*), and the *Emission Inventory Criteria and Guidelines Report* (EICG Report), which is incorporated by reference therein (ARB, 2007).

The recommended model for calculating and presenting HRA results for the Hot Spots Program is the HARP software, available from the Air Resources Board (ARB). More information on HARP and directions for downloading the software can be found on the ARB's web site at <http://www.arb.ca.gov/toxics/harp/downloads.htm>.

### 5.2 Criteria for Exposure Pathway Evaluation

In order to determine total dose to the receptor the applicable pathways of exposure need to be identified. The inhalation pathway must be evaluated for all Hot Spots substances emitted by the facility. A small subset of Hot Spots substances is subject to deposition onto soil, plants, and water bodies. These substances need to be evaluated by the appropriate noninhalation pathways, as well as by the inhalation pathway, and the results must be presented in all HRAs. These substances include semi-volatile organic chemicals and heavy metals. Such substances are referred to as multipathway substances. Two steps are necessary to determine if a substance should be evaluated for multipathway impacts:

1. Determine whether the substance or its group (e.g., dioxins, PAHs) is listed in Table 5.1.
2. Determine if the substance has an oral reference exposure level (REL) listed in Table 6.4, or if it has an oral cancer slope factor listed in Table 7.1. Two other references for checking the presence of oral health factors are OEHHA's website (OEHHA, 2012b) and the *Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values* on the Air Resources Board website (ARB, 2012). Oral or noninhalation exposure pathways include the ingestion of soil, angler-caught fish, drinking water from surface water sources, mother's milk,

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homegrown produce, beef, pork, chicken, eggs and cow's milk. The dermal pathway is also evaluated via contact with contaminated soil.

For all multipathway substances, the minimum exposure pathways that must be evaluated at every residential site (in addition to inhalation) are soil ingestion and dermal exposure. If dioxins, furans, PCBs, PAHs or lead are emitted, then the breast-milk consumption pathway also becomes mandatory. The other exposure pathways (e.g., the ingestion of homegrown produce or angler-caught fish) are evaluated on a site-by-site basis. If the resident can be exposed through an impacted exposure pathway, then it must be included in the HRA. However, if there are no vegetable gardens or fruit trees within the zone of impact for a facility, for example, then the produce pathways need not be evaluated. Note that on-site residential receptors are potentially subject to inhalation and noninhalation exposure pathways. Table 8.2 identifies the residential and worker receptor exposure pathways that are mandatory and those that are dependent on the site-specific decisions. While residents can be exposed through several exposure pathways, worker receptors are only evaluated for inhalation, soil ingestion, and dermal exposure using point estimates.

Table 5.1 shows the multipathway substances that, based on available scientific data, can be considered for each noninhalation exposure pathway. The exposure pathways that are evaluated for a substance depend on two factors: 1) whether the substance is considered a multipathway substance for the Hot Spots Program (Table 5.1), and 2) what the site-specific conditions are. A multipathway substance may be excluded from a particular exposure pathway because its physical-chemical properties can preclude significant exposure via the pathway. For example, some water-soluble substances do not appreciably bioaccumulate in fish; therefore, the fish pathway is not appropriate. In addition, if a particular exposure pathway is not impacted by the facility or is not present at the receptor site, then the pathway is not evaluated. For example, if a fishable water body is not impacted by the facility, or the water source is impacted but no receptor uses it for fishing, then the angler-caught fish pathway is not evaluated.

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**Table 5.1 Specific Pathways to be Analyzed for Each Multipathway Substance**

Substance	Soil Ingestion	Dermal	Meat, Milk & Egg Ingestion	Fish Ingestion	Exposed Vegetable Ingestion	Leafy Vegetable Ingestion	Protected Vegetable Ingestion	Root Vegetable Ingestion	Water Ingestion	Breast Milk Ingestion
<b>Inorganic chemicals</b>										
Arsenic & compounds	X	X	X	X	X	X	X	X	X	
Beryllium & compounds	X	X	X	X	X	X	X	X	X	
Cadmium & compounds	X	X	X	X	X	X	X	X	X	
Chromium VI & compounds	X	X	X <sup>a</sup>	X	X	X	X	X	X	
Fluorides (soluble compounds)	X	X	X		X	X	X	X	X	
Lead & compounds	X	X	X	X	X	X	X	X	X	X
Mercury & compounds	X	X	X	X	X	X	X	X	X	
Nickel & compounds	X	X	X	X	X	X	X	X	X	
Selenium & compounds	X	X	X	X	X	X	X	X	X	
<b>Organic chemicals</b>										
Creosotes	X	X	X	X	X	X				X
Diethylhexylphthalate	X	X	X	X	X	X				X
Hexachlorobenzene	X	X	X	X	X	X				X
Hexachlorocyclohexanes	X	X	X	X	X	X				X
4,4'-Methylene dianiline	X	X			X	X				X
Pentachlorophenol <sup>b</sup>										
PCBs	X	X	X	X	X	X				X
Polychlorinated dibenzo-p-dioxins and dibenzofurans	X	X	X	X	X	X				X
PAHs	X	X	X	X	X	X				X

<sup>a</sup> Cow's milk only; no multipathway analysis for meat and egg ingestion

<sup>b</sup> To be evaluated by pathway in future amendments to the Hot Spots Program

### 5.3 Estimation of Concentrations in Air, Soil, and Water

Once emissions exit the source, the substances emitted will be dispersed in the air. The substances in the exhaust gas with high vapor pressures will remain largely in the vapor phase, and substances with lower vapor pressures will tend to adsorb to fly ash or other particulate matter. The emission plume may contain both vapor phase substances and particulates. A semivolatile organic toxicant can partition into both vapor and particulate phases. Particulates will deposit on vegetation, on soil, and in water at a rate that is dependent on the particle size. Use the 0.02 m/s deposition rate for emission sources that have verifiable particulate matter control devices or for emission sources that may be uncontrolled but only emit particulate matter that is less than 2.5 microns (e.g., internal combustion engines). The following algorithms are used to estimate concentrations in environmental media including air, soil, water, vegetation, and animal products.



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#### 5.3.1 Air

The ground level concentration (GLC, or  $C_{air}$  as shown in EQ 5.3.1) of a substance in air is a function of the facility emission rate and the dilution factor ( $X/Q$ ) at the points under evaluation.

##### A. Equation 5.3.1: $C_{air} = Q_{substance} \times X/Q$

1.  $C_{air}$  = Ground level concentration ( $\mu\text{g}/\text{m}^3$ )
2.  $Q_{substance}$  = Substance emission rate (g/sec)
3.  $X/Q$  = Dilution factor provided by dispersion modeling ( $\mu\text{g}/\text{m}^3/\text{g}/\text{sec}$ )

##### a. Recommended values for EQ 5.3.1:

1.  $Q_{substance}$  = Facility-specific, substance emission rate
2.  $X/Q$  = For point of interest, site specific, from dispersion modeling

##### b. Assumptions for EQ 5.3.1:

1. No plume depletion
2. Emission rate is constant, i.e., assumes steady state

#### 5.3.2 Soil

The average concentration of the substance in soil ( $C_s$ ) is a function of the deposition, accumulation period, chemical specific soil half-life, mixing depth, and soil bulk density. For simplicity and health protection, the Tier 1 default assumes 70-year soil deposition for the accumulation period at end of 70-year facility lifetime. The risk assessor may also choose a supplemental Tier 2 approach, subject to District approval or reviewing authority approval, in which the assessor applies a soil accumulation period based on the facility's start date of operation (e.g., historical date when emissions began), or the current exposure conditions, and the expected duration of operation.

##### A. Equation 5.3.2 A: $C_s = \text{Dep} \times X / (K_s \times \text{SD} \times \text{BD} \times T_t)$

1.  $C_s$  = Average soil concentration over the evaluation period ( $\mu\text{g}/\text{kg}$ )
2. Dep = Deposition on the affected soil area per day ( $\mu\text{g}/\text{m}^2\text{-d}$ )
3. X = Integral function for soil accumulation (d), see EQ 5.3.2 C below
4.  $K_s$  = Soil elimination constant ( $\text{d}^{-1}$ )
5. SD = Soil mixing depth (m)
6. BD = Soil bulk density ( $\text{kg}/\text{m}^3$ )
7.  $T_t$  = Soil exposure duration or soil accumulation period (d)

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##### a: Recommended default values for EQ 5.3.2 A:

1. Dep = Calculated in EQ 5.3.2 B
2. X = Calculated in EQ 5.3.2 C
3.  $K_s$  = Calculated in EQ 5.3.2 D
4. SD = 0.01 (m) for playground setting (soil ingestion and dermal pathways) and 0.15 (m) for agricultural setting (produce and meat pathways)
5. BD = 1,333 ( $\text{kg}/\text{m}^3$ )
6.  $T_t$  = 25,550 (d) = 70 years

##### b: Assumptions for EQ 5.3.2 A:

1. Substances are uniformly mixed in soil.
2. Substances are not leached or washed away, except where evidence exists to the contrary.
3. It is assumed that toxicants accumulate in the soil for 70 years from deposition over the 70 year lifespan of the facility. Use 70-year soil accumulation ( $T_t$ ) for Tier 1 estimation of 9-, 30- and 70-year residential exposure, and 25-year off-site worker exposure.
4. For a receptor ingesting mother's milk, the mother is exposed from birth to 25 years of age; the infant is then born and receives mother's milk for one year. Default assumes 70-year soil accumulation for mother's milk pathway. See Table 5.1 for information on which substances or groups of substances must be evaluated by the mother's milk pathway.

##### B. Equation 5.3.2 B: $\text{Dep} = C_{air} \times \text{Dep-rate} \times 86,400$

1.  $C_{air}$  = Ground level concentration ( $\mu\text{g}/\text{m}^3$ )
2. Dep-rate = Vertical rate of deposition (m/sec)
3. 86,400 = Seconds per day conversion factor (sec/d)

##### a: Recommended default values for EQ 5.3.2 B:

1.  $C_{air}$  = Calculated above in EQ 5.3.1 A
2. Dep-rate = Use 0.02 meters/second for controlled sources, or 0.05 meters/second for uncontrolled sources.

##### b: Assumptions for EQ 5.3.2 B:

1. Deposition rate remains constant. A deposition rate must be used when determining potential noninhalation health impacts. In the absence of facility specific information on the size of the emitted particles, the default values for deposition rate should be used. Currently, the default value of 0.02 meters per second is used for emission sources that have verifiable particulate matter control devices or for emission sources that may be uncontrolled but only emit particulate matter that is less than 2.5 microns

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(e.g., internal combustion engines). The 0.05 meters per second default value is used for risk assessment if the emissions are uncontrolled. If other deposition rate factors are used, sufficient support documentation must be included with the HRA.

**C. Equation 5.3.2 C:** 
$$X = [(e^{-K_s \cdot T_f} - e^{-K_s \cdot T_o}) / K_s] + T_i$$

1.  $e = 2.718$
2.  $K_s$  = Soil elimination constant
3.  $T_f$  = End of soil accumulation evaluation period (d)
4.  $T_o$  = Beginning of soil accumulation evaluation period (d)
5.  $T_i$  = Total days of soil exposure (soil accumulation period)  $T_f - T_o$  (d)

**a: Recommended default values for EQ 5.3.2 C:**

- 1:  $K_s$  = Calculated in EQ 5.3.2 D
- 2:  $T_f$  = 25,550 (d) = 70 years. Total soil exposure time at end of facility operation
- 3:  $T_o$  = 0 (d) The initial time (start period) of soil exposure to all receptors that are impacted by the soil pathway.

Note: Under a Tier 2 scenario, the risk assessor may also adjust  $T_f$  and  $T_i$ , subject to District approval, to replicate current soil accumulation and expected accumulation at the end of facility operation.

**D. Equation 5.3.2 D:** 
$$K_s = 0.693 / t_{1/2}$$

1. 0.693 = Natural log of 2
2.  $t_{1/2}$  = Chemical specific soil half-life (d)

**a: Recommended default values for EQ 5.3.2 D:**

1.  $t_{1/2}$  = Chemical-specific. See Table 5.2

### 5.3.3 Water

The water pathway is evaluated if a standing water body (e.g., pond or lake) is impacted by facility emissions and is used as a source for drinking water by food-producing animals or humans, or is a source of angler-caught fish. The average concentration of the substance in water ( $C_w$ ) is a function of direct deposition and material carried in by surface run-off. However, only the contribution from direct deposition will be considered at this time.

**A. Equation 5.3.3 A:** 
$$C_w = C_{depw}$$

1.  $C_w$  = Average concentration in water ( $\mu\text{g/kg}$ )
2.  $C_{depw}$  = Contribution due to direct deposition ( $\mu\text{g/kg}$ )

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**B. Equation 5.3.3 B:** 
$$C_{depw} = Dep \times SA \times 365 / (WV \times VC)$$

1. Dep = Deposition on water body per day ( $\mu\text{g/m}^2/\text{d}$ )
2. SA = Water surface area ( $\text{m}^2$ )
3. 365 = Days per year (d/yr)
4. WV = Water volume (kg)
5. VC = Number of volume changes per year

**a: Recommended default values for EQ 5.3.3 B:**

1. Dep = Calculated above in EQ 5.3.2 B
2. SA = Site specific water surface area ( $\text{m}^2$ )
3. WV = Site specific water volume in (kg) (1L = 1 kg)
4. VC = Site specific number of volume changes per year  
(SA, WV, and VC values can be obtained from the appropriate Department of Water Resources (DWR) Regional office)

**b: Assumptions for EQ 5.3.3 B:**

1. With the exception of dilution via number of volume changes per year, all material deposited into the water remains suspended or dissolved in the water column and is available for bioaccumulation in fish.

### 5.3.4 Estimation of Concentrations in Vegetation, Animal Products, and Mother's Milk

Estimates of the concentration of the substance in vegetation, animal products and mother's milk require the use of the results of the air, water, and soil environmental fate evaluation. Plants, animals and nursing mothers will be exposed to the substances at the concentrations previously calculated in Section 5.31 to 5.33 above.

#### 5.3.4.1 Vegetation

The average concentration of a substance in and on vegetation ( $C_v$ ) is a function of direct deposition of the substance onto the vegetation and of root translocation or uptake from soil contaminated by the substance. We currently recommend root translocation only for the inorganic compounds.

**A. Equation 5.3.4.1 A:** 
$$C_v = C_{depv} + C_{trans}$$

1.  $C_v$  = Average concentration in and on specific types of vegetation ( $\mu\text{g/kg}$ )
2.  $C_{depv}$  = Concentration due to direct deposition ( $\mu\text{g/kg}$ )
3.  $C_{trans}$  = Concentration in vegetation due to root translocation or uptake ( $\mu\text{g/kg}$ ) – see EQ 5.3.4.1 C below

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**B. Equation 5.3.4.1 B:**  $C_{\text{depv}} = [\text{Dep} \times \text{IF} / (k \times Y)] \times (1 - e^{-kT})$

1. Dep = Deposition on affected vegetation per day ( $\mu\text{g}/\text{m}^2/\text{d}$ )
2. IF = Interception fraction
3. k = Weathering constant ( $\text{d}^{-1}$ )
4. Y = Yield ( $\text{kg}/\text{m}^2$ )
5. e = Base of natural logarithm (2.718)
6. T = Growth period (d)

**a: Recommended default values for EQ 5.3.4.1 B:**

1. Dep = Calculated above in EQ 5.3.2 B
2. IF = Crop specific:
  - a: Root crops = 0.0
  - b: Leafy crops = 0.2
  - c: Protected crops = 0.0
  - d: Exposed crops = 0.1
  - e: Pasture = 0.7
3. k = 0.1 ( $\text{d}^{-1}$ )
4. Y = 2 ( $\text{kg}/\text{m}^2$ ) for root, leafy, protected, exposed and pasture [CA Department of Food and Agriculture dot maps]
5. T = 45 (d) for leafy crops  
T = 90 (d) for exposed crops

**b: Crop-type definitions for EQ 5.3.4.1 B:**

1. **Leafy** crop category consists of broad-leafed vegetables in which the leaf is the edible part. Examples include spinach, lettuce, cabbage, and kale.
2. **Root** crop category includes vegetables in which the edible portion is underground. Examples are potato, radish, and carrot.
3. **Exposed** produce category consists of crops with a small surface area subject to air deposition. Examples include strawberries, tomato, cucumber, zucchini, green bean and bell pepper.
4. **Protected** produce category consists of crops in which the edible part is not exposed to air deposition (e.g., the exposed skin of the crop is removed and not eaten). Examples are corn, pea, pumpkin and oranges.

Tables H-9 through H-15 in Appendix H provide more examples of various leafy, root, exposed and protected crop types.

**c: Assumptions for EQ 5.3.4.1 B:**

1. No deposition on root or protected crops
2. No uptake and translocation of deposited chemicals onto crops

**C. Equation 5.3.4.1 C: (for inorganic compounds)**

$$C_{\text{trans}} = C_s \times \text{UF}_2$$

1.  $C_s$  = Average soil concentration ( $\mu\text{g}/\text{kg}$ )
2.  $\text{UF}_2$  = Uptake factor based on soil concentration

**a: Recommended default values for EQ 5.3.4.1 C:**

1.  $C_s$  = Calculated above in EQ 5.3.2 A
2.  $\text{UF}_2$  = See Table 5.2

**D. Equation 5.3.4.1 D: (for organic compounds)**

$$\text{UF}_2 = [(0.03 \times K_{\text{ow}}^{0.77}) + 0.82] / [(K_{\text{oc}})(F_{\text{oc}})]$$

1. 0.03 = Empirical constant
2.  $K_{\text{ow}}$  = Octanol:water partition factor
3. 0.77 = Empirical constant
4. 0.82 = Empirical constant
5.  $K_{\text{oc}}$  = Organic carbon partition coefficient
6.  $F_{\text{oc}}$  = Fraction organic carbon in soil

**a: Recommended default values for EQ 5.3.4.1 D:**

1.  $K_{\text{ow}}$  = Chemical specific, see Table 5.2
2.  $K_{\text{oc}}$  = Chemical specific, see Table 5.2
3.  $F_{\text{oc}}$  = 0.1

**b: Assumptions for EQ 5.3.4.1 D:**

1. OEHA currently has no recommended root uptake factors for organic compounds listed in Table 5.2. Evidence suggests this route is insignificant compared to airborne deposition. Nevertheless, if it becomes necessary in specific cases to assess root uptake for an organic compound, Equation 5.3.4.1 D would be the algorithm OEHA recommends using to assess root uptake.

**5.3.4.2 Animal Products**

The average concentration of the substance in animal products ( $C_{\text{ia}}$ ) depends on which routes of exposure exist for the animals. Animal exposure routes include inhalation, soil ingestion, ingestion of contaminated feed and pasture, and ingestion of contaminated water.



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#### A. Equation 5.3.4.2:

$$C_{fa} = (\text{Inhalation} + \text{Water ingestion} + \text{Feed ingestion} + \text{Pasture/Grazing ingestion} + \text{Soil ingestion}) \times T_{co}$$

1.  $C_{fa}$  = Average concentration in farm animals and their products ( $\mu\text{g/kg}$ )
2. Inhalation, water ingestion, etc. = Dose through inhalation, water ingestion, etc. ( $\mu\text{g/d}$ )
3.  $T_{co}$  = Chemical-specific transfer coefficient of contaminant from diet to animal product ( $\text{d/kg}$ )

#### a: Recommended default values for EQ 5.3.4.2:

1.  $T_{co}$  = See Tables 5.3a and 5.3b

#### b: Assumptions for EQ 5.3.4.2:

1. The  $T_{co}$  for a given chemical is the same for all exposure routes

#### 5.3.4.2.1 Inhalation

#### A. Equation 5.3.4.2.1: $\text{Inhalation} = BR_a \times C_{air}$

1. Inhalation = Dose through inhalation ( $\mu\text{g/d}$ )
2.  $BR_a$  = Breathing rate for animal ( $\text{m}^3/\text{d}$ )
3.  $C_{air}$  = Ground-level concentration ( $\mu\text{g}/\text{m}^3$ )

#### a: Recommended default values for EQ 5.3.4.2.1:

1.  $BR_a$  = See Table 5.4
2.  $C_{air}$  = Calculated above in EQ 5.3.1 A

#### b: Assumptions for EQ 5.3.4.2.1:

1. All material inhaled is 100% absorbed

#### 5.3.4.2.2 Water Ingestion

The water ingestion pathway is applied if there are surface water sources of drinking water, such as springs, ponds or lakes, which are exposed to airborne deposition of facility emissions. Due to the site-specific nature for this exposure pathway, OEHHA recommends that the risk assessor conduct a survey at the site to estimate the fraction of contaminated drinking water ingested by the animals, if such sources exist.

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#### A. Equation 5.3.4.2.2: $\text{Water ingestion} = WI_a \times FSW \times C_w$

1. Water ingestion = Dose through water ingestion ( $\mu\text{g/d}$ )
2.  $WI_a$  = Water ingestion for animal ( $\text{kg/d}$ )
3.  $FSW$  = Fraction of water ingested from a contaminated body of water (site-specific)
4.  $C_w$  = Average concentration in water ( $\mu\text{g/kg}$ )  
For water 1 kg = 1 L

#### a: Recommended default values for EQ 5.3.4.2.2:

1.  $WI_a$  = See Table 5.4
2.  $FSW$  = Site specific fraction, need to survey water ingestion practices in affected area
3.  $C_w$  = Calculated above in EQ 5.3.3 A

#### 5.3.4.2.3 Feed Ingestion

The fraction of feed intake by cattle, pigs and poultry that is contaminated by facility emissions can vary considerably depending on the manner in which the animals are raised. Due to the site-specific nature for this exposure pathway, OEHHA recommends that the risk assessor conduct a survey at the site to estimate the fraction of contaminated feed eaten by the animals. For a Tier 1 assessment, default values are provided by OEHHA (see Table 5.4 and Table 5.4 footnotes) for estimation of exposure to the animals.

Agricultural mixing depth should be used for calculating soil concentration for feed and pasture contamination.

#### 5.3.4.2.3.1 Feed Ingestion

#### A. Equation 5.3.4.2.3.1: $\text{Feed ingestion} = (1.0 - FG) \times FI \times L \times C_v$

1. Feed ingestion = Dose through the ingestion of feed ( $\mu\text{g/d}$ ) that is harvested after it is impacted by source emissions
2.  $FG$  = Fraction of diet provided by grazing (site-specific)
3.  $FI$  = Feed ingestion rate ( $\text{kg/d}$ )
4.  $L$  = Fraction of locally grown (source impacted) feed that is not pasture (site-specific)
5.  $C_v$  = Concentration in feed ( $\mu\text{g/kg}$ )



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#### a: Recommended default values EQ 5.3.4.2.3.1:

1. FG = Default values in Table 5.4 footnote b, although a site-specific survey for the fraction of diet provided by grazing is recommended
2. FI = See Table 5.4
3. L = Default values in Table 5.4 footnote b, although a site-specific survey for fraction of locally grown (source impacted) feed that is not pasture is recommended
4. C<sub>v</sub> = As calculated above in EQ 5.3.4.1 A

#### b: Assumptions for EQ 5.3.4.2.3.1:

1. Feed (FI) transported from an off-site location (i.e., not grown locally) is not contaminated by facility emissions.

#### 5.3.4.2.3.2 Pasture/Grazing ingestion

##### A. Equation 5.3.4.2.3.2: $\text{Pasture/Grazing ingestion} = FG \times C_v \times FI$

1. Pasture/Grazing ingestion = Dose through pasture/grazing (μg/d)
2. FG = Fraction of diet provided by grazing (site-specific)
3. C<sub>v</sub> = Concentration in pasture/grazing material (μg/kg)
4. FI = Feed ingestion rate (kg/d)

#### a: Recommended default values EQ 5.3.4.2.3.2:

1. FG = Default values in Table 5.4 for fraction of diet provided by grazing, although a site-specific survey is recommended
2. C<sub>v</sub> = As calculated above in EQ 5.3.4.1 A
3. FI = See Table 5.4

#### 5.3.4.2.4 Soil ingestion

The feeds provided to dairy and beef cattle may contain small quantities of soil. A larger fraction of soil by weight of food is taken up during grazing. Rooting behavior by pigs with access to soil will result in soil ingestion. Likewise, poultry with free access to soil or pasture will also ingest soil. Defaults for soil ingestion are shown in Table 5.4.

##### A. Equation 5.3.4.2.4 A: $\text{Soil ingestion} = SI_a \times C_s$

1. Soil ingestion = Dose through soil ingestion (μg/d)
2. SI<sub>a</sub> = Soil ingestion rate for animal (kg/d)
3. C<sub>s</sub> = Average soil concentration (μg/kg)

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#### a: Recommended default values for EQ 5.3.4.2.4 A:

1. SI<sub>a</sub> = Calculated below
2. C<sub>s</sub> = Calculated above in EQ 5.3.2 A

##### B. Equation 5.3.4.2.4 B: $SI_a = [(1 - FG) \times FS_f \times FI] + [FG \times FS_p \times FI]$

1. FG = Fraction of diet provided by grazing
2. FS<sub>f</sub> = Soil ingested as a fraction of feed ingested
3. FI = Feed ingestion rate (kg/d)
4. FS<sub>p</sub> = Soil ingested as a fraction of pasture ingested

#### a: Recommended default values for EQ 5.3.4.2.4 B:

1. FG = Site specific fraction of diet provided by grazing
2. FS<sub>f</sub> = See Table 5.4
3. FI = See Table 5.4
4. FS<sub>p</sub> = See Table 5.4

#### b: Assumptions for EQ 5.3.4.2.4 B:

1. The transfer coefficient is the same for all exposure routes.
2. Soil ingested in feed (FS<sub>f</sub>) transported from an off-site location (i.e., not grown locally) is assumed not to be contaminated by facility emissions.

#### 5.3.4.3 Bioaccumulation in Angler-Caught Fish

The average concentration in fish (C<sub>f</sub>) is based on the concentration in water and a chemical-specific bioaccumulation factor.

##### A. Equation 5.3.4.3: $C_t = C_w \times BAF$

1. C<sub>t</sub> = Concentration in wet weight tissue (muscle) of fish (μg/kg)
2. C<sub>w</sub> = Concentration in water (μg/kg)
3. BAF = Fish bioaccumulation factor (unitless)

#### a: Recommended default values for Equation 5.3.4.3:

1. C<sub>w</sub> = As calculated above in Equation 5.3.3 A
2. BAF = Chemical-specific; see Table 5.2



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#### b: Assumptions for Equation 5.3.4.3:

1. For conversion of a chemical concentration in a volume of water shown as  $\mu\text{g/L}$ , 1 L water = 1 kg water; thus, for concentration of chemical in water,  $\mu\text{g/L} = \mu\text{g/kg}$ .
2. For organic chemicals, BAFs lipid-normalized to adult rainbow trout with 4% lipid content in muscle tissue
3. For organic chemicals, BAFs based on the freely dissolved fraction in water under conditions of average particulate organic carbon and dissolved organic carbon in U.S. lakes and other water bodies
4. For inorganic compounds, BAFs based on wet weight muscle tissue concentration and on the total water concentration of the inorganic compound in water.
5. Contaminant concentrations are uniform in water based on dispersion

#### 5.3.4.4 Bioaccumulation in Mother's Milk

The average concentration of a chemical in mother's milk ( $C_m$ ) is a function of the mother's exposure through all exposure routes (i.e., inhalation, ingestion via food, drinking water, and soil, and dermal absorption via skin contact with soil contaminated with the chemical), the contaminant half-life in the mother's body, and transfer of absorbed chemical to mother's milk. The contaminant half-life in the body and transfer to mother's milk is incorporated in biotransfer coefficients ( $T_{co}$ ) in Equation 5.3.4.4. See the TSD (OEHHA, 2012a), Appendix J for details on development of biotransfer factors. The substances assessed by the mother's milk pathway are shown in Table 5.1.

#### A. Equation 5.3.4.4: $C_m = [(D_{\text{inder}} \times T_{co_{m\_inder}}) + (D_{\text{ing}} \times T_{co_{m\_ing}})] \times BW$

1.  $C_m$  = Concentration in mother's milk (mg/kg-milk)
2.  $D_{\text{inder}}$  = The sum of  $\text{DOSE}_{\text{air}}$  +  $\text{DOSE}_{\text{dermal}}$  through inhalation and dermal absorption (mg/kg-BW-day)
3.  $D_{\text{ing}}$  = The sum of  $\text{DOSE}_{\text{food}}$  +  $\text{DOSE}_{\text{soil}}$  +  $\text{DOSE}_{\text{water}}$  through ingestion (mg/kg-BW-day)
4.  $T_{co_{m\_inder}}$  = Biotransfer coefficient from inhalation and dermal absorption to mother's milk (d/kg-milk)
5.  $T_{co_{m\_ing}}$  = Biotransfer coefficient from ingestion to mother's milk (d/kg-milk)
6. BW = Body weight of mother (Kg)

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#### a: Recommended cancer risk default values for EQ 5.3.4.4:

1.  $D_{\text{ing}}$  = As calculated through ingestion of soil in EQ 5.4.3.1.1 + home-grown produce in EQ 5.4.3.2.1 + home-raised animal products in EQ 5.4.3.2.2 + drinking water in EQ 5.4.3.3.1 + angler-caught fish in EQ 5.4.3.4.1
2.  $D_{\text{inder}}$  = As calculated through inhalation in EQ 5.4.1.1 + dermal exposure in EQ 5.4.2.1
3.  $T_{co_{m\_inder}}$  = See Table 5.5
4.  $T_{co_{m\_ing}}$  = See Table 5.5

#### b: Recommended noncancer risk default values for EQ 5.3.4.4:

1.  $D_{\text{ing}}$  = As calculated through ingestion of soil in EQ 5.4.3.1.2 + home-grown produce and home-raised animal products in EQ 5.4.3.2.3 + drinking water in EQ 5.4.3.3.2 + angler-caught fish in EQ 5.4.3.4.2
2.  $D_{\text{inder}}$  = As calculated through inhalation in EQ 5.4.1.1 + dermal exposure in EQ 5.4.2.2
3.  $T_{co_{m\_inder}}$  = See Table 5.5
4.  $T_{co_{m\_ing}}$  = See Table 5.5

#### c: Assumptions for EQ 5.3.4.4:

1. Default age of mother at birth is 25 years of age, then nurses the infant for 1 year; Use 16<30 year old high-end (95<sup>th</sup> percentile) daily breathing rate and intake rates for  $D_{\text{ing}}$  and  $D_{\text{inder}}$  for estimating dose to mother.
2. For inhalation dose to mother's milk, it is recommended that the EF variate in EQ 5.4.1.1 is left out for calculation of inhalation dose in the mother's milk pathway.
3. Biotransfer coefficient,  $T_{co_{m\_inder}}$ , the same for both inhalation and dermal pathways based on lack of first-pass metabolism through the liver for both of these pathways.
4. Biotransfer coefficient,  $T_{co_{m\_ing}}$ , the same for all ingestion pathways based on first-pass metabolism through the liver.
5. For chemicals in Table 5.5 lacking either an oral or inhalation  $T_{co}$ , use the oral  $T_{co}$  for the absent inhalation  $T_{co}$  (i.e., for PCDDs and PCDFs and dioxin-like PCBs), or the inhalation  $T_{co}$  for the absent oral  $T_{co}$  (i.e., for lead) in Equation 5.3.4.4.
6. The concentration in the mother's milk is determined using the derived approach to risk assessment. This method allows use of the high-end dose point estimate for driving exposure pathways and the average dose point estimates for other exposure pathways. See Sections 8.2.6 (cancer) and 8.3.3 (noncancer) for the description of the methodology on how to implement the derived methodology.

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Table 5.2a Substance-Specific Default Values for Organic Multipathway Substances

Multipathway Substance	Log K <sub>oc</sub>	Log K <sub>ow</sub>	Fish BAF	Root Uptake Factors				GRAF <sup>2</sup>	Soil HalfLife (days)
				Root	Leafy	Exposed	Protected		
Creosotes	NA	NA	8 x 10 <sup>-2</sup>	NA	NA	NA	NA	1.0	4.3 x 10 <sup>-12</sup>
Diethylhexyl-phthalate	5.34 <sup>1</sup>	7.63 <sup>1</sup>	4 x 10 <sup>-11</sup>	NA	NA	NA	NA	1.0	1.5 x 10 <sup>-11</sup>
Dioxins and Furans	NA	NA	3 x 10 <sup>-18</sup>	NA	NA	NA	NA	0.43	7.0 x 10 <sup>-13</sup>
Hexachlorobenzene	NA	NA	8 x 10 <sup>-14</sup>	NA	NA	NA	NA	1.0	1.0 x 10 <sup>-18</sup>
Hexachlorocyclohexanes	NA	NA	3 x 10 <sup>-13</sup>	NA	NA	NA	NA	1.0	9.4 x 10 <sup>-11</sup>
4,4'-Methylene dianiline	2.24 <sup>3</sup>	1.59 <sup>4</sup>	NA	NA	NA	NA	NA	1.0	4.6 x 10 <sup>-12</sup>
Pentachlorophenol <sup>5</sup>									
Polycyclic Aromatic Hydrocarbons (PAHs)	NA	NA	8 x 10 <sup>-2</sup>	NA	NA	NA	NA	1.0	4.3 x 10 <sup>-12</sup>
Polychlorinated Biphenyls	NA	NA	2 x 10 <sup>-6</sup>	NA	NA	NA	NA	1.0	3.2 x 10 <sup>-13</sup>

- (1) Averaged log Kow and Koc values determined by most reliable methods (Staples et al., 1997)  
(2) GRAF (Gastrointestinal Relative Absorption Factor). The guidelines allow for adjusting for bioavailability where the evidence warrants. For example, there are good data which indicate that dioxin is not as available to an organism when bound to soil or fly ash matrices relative to when it is in solution or in food. Therefore, a bioavailability factor is incorporated into the model to account for this difference. When information becomes available for other chemicals of concern, this type of bioavailability will be incorporated into the model.  
(3) Measured by Hansch et al. (1985)  
(4) Estimated according to methodology of Lyman et al. (1990)  
(5) To be evaluated for specific default values in future amendments to the Hot Spots Program.  
NA - Data Not Available or Not Applicable

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Table 5.2b Substance-Specific Default Values for Inorganic Multipathway Substances

Multipathway Substance	Log K <sub>oc</sub>	Log K <sub>ow</sub>	Fish BAF	Root Uptake Factors				GRAF <sup>1</sup>	Soil HalfLife (days)
				Root	Leafy	Exposed	Protected		
Arsenic & Inorganic Compounds	NA	NA	2 x 10 <sup>-11</sup>	8 x 10 <sup>-3</sup>	1 x 10 <sup>-2</sup>	2 x 10 <sup>-2</sup>	7 x 10 <sup>-2</sup>	1.0	1.0 x 10 <sup>-18</sup>
Beryllium & Compounds	NA	NA	4 x 10 <sup>-11</sup>	5 x 10 <sup>-3</sup>	2 x 10 <sup>-4</sup>	8 x 10 <sup>-3</sup>	3 x 10 <sup>-4</sup>	1.0	1.0 x 10 <sup>-18</sup>
Cadmium & Compounds	NA	NA	4 x 10 <sup>-11</sup>	8 x 10 <sup>-2</sup>	1 x 10 <sup>-1</sup>	2 x 10 <sup>-2</sup>	1 x 10 <sup>-2</sup>	1.0	1.0 x 10 <sup>-18</sup>
Chromium VI & Compounds	NA	NA	2 x 10 <sup>-11</sup>	3 x 10 <sup>-10</sup>	3 x 10 <sup>-1</sup>	2 x 10 <sup>-2</sup>	7 x 10 <sup>-2</sup>	1.0	1.0 x 10 <sup>-18</sup>
Fluorides (soluble compounds)	NA	NA	NA	9 x 10 <sup>-3</sup>	4 x 10 <sup>-2</sup>	4 x 10 <sup>-3</sup>	4 x 10 <sup>-3</sup>	1.0	1.0 x 10 <sup>-18</sup>
Lead & Compounds	NA	NA	2 x 10 <sup>-11</sup>	4 x 10 <sup>-3</sup>	8 x 10 <sup>-3</sup>	7 x 10 <sup>-3</sup>	3 x 10 <sup>-3</sup>	1.0	1.0 x 10 <sup>-18</sup>
Mercury & Inorganic Compounds <sup>2</sup>	NA	NA	8 x 10 <sup>-11</sup>	2 x 10 <sup>-2</sup>	2 x 10 <sup>-2</sup>	9 x 10 <sup>-3</sup>	1 x 10 <sup>-2</sup>	1.0	1.0 x 10 <sup>-18</sup>
Nickel and compounds	NA	NA	2 x 10 <sup>-11</sup>	6 x 10 <sup>-3</sup>	1 x 10 <sup>-2</sup>	3 x 10 <sup>-3</sup>	3 x 10 <sup>-2</sup>	1.0	1.0 x 10 <sup>-18</sup>
Selenium & compounds	NA	NA	1 x 10 <sup>-13</sup>	7 x 10 <sup>-2</sup>	6 x 10 <sup>-2</sup>	4 x 10 <sup>-2</sup>	3 x 10 <sup>-1</sup>	1.0	1.0 x 10 <sup>-18</sup>

- (1) GRAF (Gastrointestinal Relative Absorption Factor). The guidelines allow for adjusting for bioavailability where the evidence warrants. For example, there are good data which indicate that dioxin is not as available to an organism when bound to soil or fly ash matrices relative to when it is in solution or in food. Therefore, a bioavailability factor is incorporated into the model to account for this difference. When information becomes available for other chemicals of concern, this type of bioavailability will be incorporated into the model.  
(2) Methyl mercury (MeHg) is not represented in the category "mercury & inorganic compounds". The BAF for methyl mercury is orders of magnitude higher than for inorganic mercury. Assessment of MeHg for the fish pathway is not directly applicable to the Hot Spots program, as no facilities are known to emit MeHg directly into the air (OEHHA, 2012; OEHHA, 2006), but it may be formed by action of microbes in sediment. Assessing the methylation of mercury deposited into a water body is difficult, and is also very water body-specific. At this time OEHHA cannot address this issue in the Hot Spots program, but will consider addressing this problem in future amendments of the Guidance.  
NA - Data Not Available or Not Applicable.



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**Table 5.3a Animal Transfer Coefficients for Persistent Organic Chemicals**

Organic Chemical	Tco (d/kg) <sup>a</sup>				
	Cow's Milk	Chicken Egg	Chicken Meat	Cattle Meat	Pig Meat
Diethylhexylphthalate	9 x 10 <sup>-5</sup>	0.04	0.002	6 x 10 <sup>-4</sup>	5 x 10 <sup>-4</sup>
Hexachlorobenzene	0.02	20	10	0.2	0.08
Hexachlorocyclohexanes	0.01	7	5	0.2	0.09
PAHs	0.01	0.003	0.003	0.07	0.06
Polychlorinated biphenyls					
Congener 77	0.001	6	4	0.07	0.4
81	0.004	10	7	0.2	0.4
105	0.01	10	7	0.6	0.7
114	0.02	10	7	0.9	0.7
118	0.03	10	7	1	0.7
123	0.004	10	7	0.2	0.7
126	0.04	10	7	2	0.7
156	0.02	10	8	0.9	2
157	0.01	10	8	0.5	2
167	0.02	10	8	1	2
169	0.04	10	8	2	2
189	0.005	10	8	0.2	1
Unspeciated (PCB 126) <sup>b</sup>	0.04	10	7	2	0.7
PCDD/Fs					
Congener 2,3,7,8-TCDD	0.02	10	9	0.7	0.1
1,2,3,7,8-PeCDD	0.01	10	9	0.3	0.09
1,2,3,4,7,8-HxCDD	0.009	10	6	0.3	0.2
1,2,3,6,7,8-HxCDD	0.01	10	6	0.4	0.1
1,2,3,7,8,9-HxCDD	0.007	7	3	0.06	0.02
1,2,3,4,6,7,8-HpCDD	0.001	5	2	0.05	0.2
OCDD	0.0006	3	1	0.02	0.1
2,3,7,8-TCDF	0.004	10	6	0.1	0.02
1,2,3,7,8-PeCDF	0.004	30	10	0.1	0.01
2,3,4,7,8-PeCDF	0.02	10	8	0.7	0.09
1,2,3,4,7,8-HxCDF	0.009	10	5	0.3	0.1
1,2,3,6,7,8-HxCDF	0.009	10	6	0.3	0.09
2,3,4,6,7,8-HxCDF	0.008	5	3	0.3	0.06
1,2,3,7,8,9-HxCDF	0.009	3	3	0.3	0.03
1,2,3,4,6,7,8-HpCDF	0.002	3	1	0.07	0.06
1,2,3,4,7,8,9-HpCDF	0.003	3	1	0.1	0.02
OCDF	0.002	1	0.6	0.02	0.03
Unspeciated (2,3,7,8-TCDD) <sup>b</sup>	0.02	10	9	0.7	0.1

<sup>a</sup> All Tco values were rounded to the nearest whole number.

<sup>b</sup> For unspeciated mixtures, use PCB 126 Tcos to represent the class of PCBs, and 2378-TCDD Tcos to represent the class of PCDDs/Fs.

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**Table 5.3b Animal Transfer Coefficients for Inorganic Chemicals**

Inorganic Metals and Chemicals	Tco (d/kg) <sup>a</sup>				
	Cow's Milk	Chicken Egg	Chicken Meat	Cattle Meat	Pig Meat
Arsenic	5 x 10 <sup>-5</sup>	0.07	0.03	2 x 10 <sup>-3</sup>	0.01 <sup>b</sup>
Beryllium	9 x 10 <sup>-7</sup>	0.09	0.2	3 x 10 <sup>-4</sup>	0.001
Cadmium	5 x 10 <sup>-6</sup>	0.01	0.5	2 x 10 <sup>-4</sup>	0.005
Chromium (VI)	9 x 10 <sup>-6</sup>	NA <sup>c</sup>	NA	NA	NA
Fluoride	3 x 10 <sup>-4</sup>	0.008	0.03	8 x 10 <sup>-4</sup>	0.004 <sup>b</sup>
Lead	6 x 10 <sup>-5</sup>	0.04	0.4	3 x 10 <sup>-4</sup>	0.001 <sup>b</sup>
Mercury	7 x 10 <sup>-5</sup>	0.8	0.1	4 x 10 <sup>-4</sup>	0.002 <sup>b</sup>
Nickel	3 x 10 <sup>-5</sup>	0.02	0.02	3 x 10 <sup>-4</sup>	0.001
Selenium	0.009	3	0.9	0.04	0.5

<sup>a</sup> All Tco values were rounded to the nearest whole number.

<sup>b</sup> The meat Tco was estimated using the metabolic weight adjustment ratio of 4.8 from cattle to pig

<sup>c</sup> NA – no data available or was not applicable

**Table 5.4 Point Estimates for Animal Pathway**

Parameter	Beef Cattle	Lactating Dairy Cattle	Pigs	Meat Poultry	Egg-laying Poultry
BW (body weight in kg)	533	575	55	1.7	1.6
BR <sub>a</sub> (inhalation rate in m <sup>3</sup> /d)	107	115	7	0.4	0.4
WL <sub>a</sub> (water consumption in kg/d)	45	110	6.6	0.16	0.23
FI (Food Intake in kg/d)	9	22	2.4	0.13	0.12
DMI <sup>a</sup> and/or pasture grazing <sup>b</sup>	9	22	2.4	0.13	0.12
FS <sub>r</sub> (soil fraction of feed)	0.01	0.01	NA	NA	NA
FS <sub>p</sub> (soil fraction of pasture)	0.05	0.05	0.04	0.02	0.02

<sup>a</sup> Dry matter intake

<sup>b</sup> For beef and dairy cattle, pasture grazing is assumed to be leafy vegetation (grasses, including greenchop) and accounts for half of the cattle's diet (FG=0.5 in Section 5.3.4.2.3). The default assumes on-site pasture grazing contaminated by facility emissions. Fraction of feed or dry matter intake (e.g., hay, grain) grown on-site is assumed to be contaminated by facility emissions and fraction of feed that is grown off-site is not assumed to be contaminated. A default may be used that assumes all feed is grown off-site (L=0 in Section 5.3.4.2.3), but a survey is recommended to verify the fractions of feed grown on-site and off-site.

For pigs with access to soil, but usually confined to a pen, default assumes no pasture grazing (FG=0 in Section 5.3.4.2.3). For feed, estimated intake consists of equal portions of all plant types including exposed, leafy, protected and root in which 10% (L=0.1 in Section 5.3.4.2.3) of the diet is homegrown and contaminated by facility emissions. The fraction of feed that was transported from an off-site location is assumed not to be contaminated by facility emissions.

For poultry including egg-laying and broiler chickens that have access to soil, default assumes no pasture grazing (FG=0 in Section 5.3.4.2.3). Estimated feed intake is composed of equal proportions of all plant types with 5% (L=0.05 in Section 5.3.4.2.3) homegrown and contaminated by facility emissions. The fraction of feed grown off-site and transported to the receptor was not contaminated by facility emissions.

NA - Not applicable. Assume FS<sub>r</sub> is equal to zero.

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**Table 5.5 Mother's Milk Transfer Coefficients (Tco<sub>m</sub>)<sup>a</sup>**

Chemical/chem. group	Tco <sub>m</sub> (day/kg-milk)
PCDDs - oral <sup>b</sup>	3.7
PCDFs - oral <sup>b</sup>	1.8
Dioxin-like PCBs - oral <sup>b</sup>	1.7
PAHs - inhalation <sup>c</sup>	1.55
PAHs - oral	0.401
Lead - inhalation <sup>d</sup>	0.064

<sup>a</sup> These compound classes represent the chemicals of greatest concern for the mother's milk pathway under the Hot Spots program. It is expected that additional transfer coefficients will be developed for other multipathway chemicals in the Hot Spots Program as data becomes available and is reviewed.

<sup>b</sup> Use the oral Tco<sub>m</sub> for the inhalation and dermal pathways. The PCDD, PCDF and dioxin-like PCB Tcos were derived using a Random-effects model from individual Tco<sub>m</sub> estimates for 7 PCDDs, 9 PCDFs and 12 dioxin-like PCBs (See OEHHA, 2012, Appendix J).

<sup>c</sup> Use the inhalation Tco<sub>m</sub> for the dermal pathway

<sup>d</sup> Use the inhalation Tco<sub>m</sub> for the ingestion and dermal pathways

## 5.4 Estimation of Dose

Once the concentrations of substances are estimated in air, soil, water, plants, and animal products, they are used to evaluate estimated exposure to people. Exposure is evaluated by calculating the daily dose in milligrams per kilogram body weight per day (mg/kg/d). The following algorithms calculate this dose for exposure through inhalation, dermal absorption, and ingestion pathways. All chemicals must be assessed for exposure through inhalation. If there are emissions of one or more of the subset of semi- or non-volatile multipathway substances, the soil ingestion pathway and the dermal soil exposure pathway are also assessed. The mother's milk pathway may also be a mandatory pathway depending on the multipathway substance released (See Table 5.1). The other exposure pathways may also need to be assessed if a survey of the exposure site shows they are present (e.g., ingestion of water, home-grown crops, home-raised animal products, and angler-caught fish).

This section contains average and high-end point estimates and data distributions for adults and children for many exposure pathways. The point-estimates and data distributions for children fall within the 3<sup>rd</sup> trimester, 0<2, 2<9, and 2<16 year age groupings. The point-estimates and data distributions for adults fall within the 16<30 and 16-70 year age groupings. When evaluating 9-, 30-, and 70-year exposure durations for cancer risk assessment, assessors will use distributions starting at the third trimester.

Workers are assessed for cancer risk as adults using 8-hour breathing rate point estimates (See Table 5.8). Point estimates for workers are listed under "offsite worker." OEHHA has not developed stochastic distributions for worker exposure. Therefore, there is no Tier 3 stochastic approach for offsite worker cancer risk assessment.

### 5.4.1 Estimation of Exposure through Inhalation

The dose through the inhalation route is estimated for cancer risk assessment and noncancer hazard assessment. Both residential and offsite worker exposures are considered. Since residential exposure includes near-continuous long-term exposure at a residence and workers are exposed only during working hours (i.e., 8 hours/day), different breathing rate distributions are used.

#### 5.4.1.1 Residential Inhalation Dose for Cancer Risk Assessment

Exposure through inhalation is a function of the breathing rate, the exposure frequency, and the concentration of a substance in the air. For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. OEHHA used the mother's breathing rates to estimate dose for the 3rd trimester fetus assuming the dose to the fetus during the 3rd trimester is the same as the mother's dose. These age-specific groupings are needed in order to properly use the age sensitivity factors for cancer risk assessment (see Chapter 8). A Tier 1 evaluation uses the high-end point estimate (i.e., the 95<sup>th</sup> percentiles) breathing rates for the inhalation



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pathway in order to avoid underestimating cancer risk to the public, including children. A possible exception for using high-end breathing rates are when there is exposure to multipathway substances and two of the non-inhalation pathways drive the risk, rather than the inhalation pathway (see Chapter 8).

#### A. Equation 5.4.1.1: $\text{Dose-air} = C_{\text{air}} \times \{BR/BW\} \times A \times EF \times 10^{-6}$

1. Dose-air = Dose through inhalation (mg/kg/d)
2.  $C_{\text{air}}$  = Concentration in air ( $\mu\text{g}/\text{m}^3$ )
3.  $\{BR/BW\}$  = Daily Breathing rate normalized to body weight (L/kg body weight - day)
4. A = Inhalation absorption factor (unitless)
5. EF = Exposure frequency (unitless), days/365 days
6.  $10^{-6}$  = Micrograms to milligrams conversion, liters to cubic meters conversion

#### a: Recommended default values for EQ 5.4.1.1:

1.  $\{BR/BW\}$  = Daily breathing rates by age groupings, see As supplemental information, the assessor may wish to evaluate the inhalation dose by using the mean point estimates in Table 5.6 to provide a range of breathing rates for cancer risk assessment to the risk manager.
2. Table (point estimates) and Table 5.7 (parametric model distributions for Tier III stochastic risk assessment). For Tier 1 residential estimates, use 95<sup>th</sup> percentile breathing rates in Table 5.6.
3. A = 1
4. EF = 0.96 (350 days/365 days in a year for a resident)

#### b: Assumption for EQ 5.4.1.1:

1. The fraction of chemical absorbed (A) is the same fraction absorbed in the study on which the cancer potency or Reference Exposure Level is based.

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As supplemental information, the assessor may wish to evaluate the inhalation dose by using the mean point estimates in Table 5.6 to provide a range of breathing rates for cancer risk assessment to the risk manager.

**Table 5.6 Point Estimates of Residential Daily Breathing Rates for 3<sup>rd</sup> trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years (L/kg BW-day)**

	3 <sup>rd</sup> Trimester <sup>a</sup>	0<2 years	2<9 years	2<16 years	16<30 years	16<70 years
	L/kg-day					
Mean	225	658	535	452	210	185
95th Percentile	361	1090	861	745	335	290

<sup>a</sup> 3<sup>rd</sup> trimester breathing rates based on breathing rates of pregnant women using the assumption that the dose to the fetus during the 3rd trimester is the same as that to the mother.

**Table 5.7 Daily Breathing Rate Distributions by Age Group for Residential Stochastic Analysis (L/kg BW-day)**

	3 <sup>rd</sup> Trimester	0<2 years	2<9 years	2<16 years	16<30 years	16-70 years
Distribution	Max extreme	Max extreme	Max extreme	Log-normal	Logistic	Logistic
Minimum	78	196	156	57	40	13
Maximum	491	2,584	1,713	1,692	635	860
Scale	59.31	568.09	125.59		40.92	36.19
Likeliest	191.50	152.12	462.61			
Location				-144.06		
Mean	225	658	535	452	210	185
Std Dev	72	217	168	172	75	67
Skewness	0.83	2.01	1.64	1.11	0.83	1.32
Kurtosis	3.68	10.61	7.88	6.02	5.17	10.83
Percentiles						
5%	127	416	328	216	96	86
10%	142	454	367	259	118	104
25%	179	525	427	331	161	141
50%	212	618	504	432	207	181
75%	260	723	602	545	252	222
80%	273	758	631	572	261	233
90%	333	934	732	659	307	262
95%	361	1090	861	745	335	290
99%	412	1430	1140	996	432	361

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#### 5.4.1.2 Offsite Worker (MEIW) Inhalation Dose for Cancer Risk Assessment

For worker exposure, the default assumes working age begins at 16 years, and that exposures to facility emissions occur during the work shift, typically up to 8 hours per day during work days. Breathing rates that occur over an 8-hour period vary depending on the intensity of the activity (See Table 5.8), and are used to estimate the inhalation dose. The 8-hour breathing rates may also be useful for cancer risk assessment of children and teachers exposed at schools during school hours.

Another risk management consideration for the offsite worker scenario for cancer assessment of a Hot Spots facility is whether there are women of child-bearing age at the MEIW location and whether the MEIW has a daycare center. Since the third trimester is only a short segment of the 25 year exposure duration used for the MEIW, the resulting risk estimate would not differ significantly. An exception to this assumption is high exposure to carcinogens over a short period, as might occur during short-term projects (see Section 8.2.10). In this case, risk assessment during the third trimester may be warranted. However, if there is onsite daycare at the MEIW, then the risks to the children will be underestimated using the offsite adult worker scenario due to increased exposure (per kg body weight) and increased sensitivity to carcinogen exposure (see Section 8.2.1). In this case, the Districts may wish to include a calculation of inhalation dose for the children in the onsite daycare, assuming they could be there from 0 to age 6 years.

Exposed workers may be engaged in activities ranging from desk work, which would reflect breathing rates of sedentary/passive or light activities, to farm worker activities, which would reflect breathing rates of moderate intensity (See Table 5.9). OEHA recommends default (Tier 1) point estimate 8-hour breathing rates in L/kg-8-hrs based on the mean and 95<sup>th</sup> percentile of moderate intensity activities, 170 and 230 L/kg-8-hrs, respectively, for adults 16-70 years old.

Many facilities operate non-continuously, as in only 8-10 hours per day, but the air dispersion modeling is performed as if the emissions were uniformly emitted over 24 hours a day, 7 days per week. The air dispersion computer model used, including AERMOD and other models, typically calculate an annual average air concentration based on actual operating conditions but also include the hours of nonoperation in the average concentration.

Therefore, there are two components that determine the worker exposure to facility emissions:

- 1) What is the estimated concentration the worker is exposed to (i.e., breathes), during the work shift, and
- 2) What is the amount of time the offsite worker's schedule overlaps with the facility's emission schedule?

There are two approaches to estimating the modeled concentration the worker is breathing during the work shift. The first approach uses a worker adjustment factor (i.e.,

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the WAF) to approximate what the worker is breathing based on the modeling run used for residential receptors. The second approach uses a special modeling run with the hourly raw results from an air dispersion analysis and is described in Appendix M.

The first and more basic approach is to obtain the long term average concentration as you would for modeling a residential receptor, then adjusting this exposure concentration using the calculated WAF (EQ 5.4.1.2 B) to estimate the concentration the offsite worker is exposed to during the work shift (shown as  $C_{air} \times WAF$ ) in EQ 5.4.1.2 A). This method is characteristic of a default approach used in a Tier 1 assessment. Once the exposure concentration is determined, the worker's inhalation dose (Dose-air) can be calculated as shown in EQ 5.4.1.2 A).

The second approach for determining the air concentration the worker is exposed to uses a refined modeling run where the hourly raw dispersion model output are post processed to examine the hourly concentrations that fall within the offsite worker's shift. This method provides a more representative estimate of the air concentration, but is more complex, and time consuming than the first method. See Appendix M for information on how to simulate the long term concentration for the offsite worker that can be used to estimate inhalation cancer risk.

The HARP software has the ability to calculate worker impacts using an approximation factor and, in the future, it will have the ability to post process refined worker concentrations using the hourly raw results from an air dispersion analysis.

If the off-site worker's shift does not completely overlap the emission schedule of the facility, then a Discount Factor (DF) may be applied to the WAF. Calculation of the DF is shown in EQ 5.4.1.2 C. The default assumption is that the offsite worker's shift falls completely within the emission schedule of the facility, in which case DF=1. Use of a DF less than 1 requires a survey at the MEIW to verify that some portion of the off-site worker shift is not subject to the facility emissions.

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**A. Equation 5.4.1.2 A:**  $\text{Dose-air} = (C_{\text{air}} \times \text{WAF}) \times \{\text{BR}/\text{BW}\} \times A \times \text{EF} \times 10^{-6}$

1. Dose-air = Dose through inhalation (mg/kg/d)
2.  $C_{\text{air}}$  = Annual average concentration in air ( $\mu\text{g}/\text{m}^3$ )
3. WAF = Worker air concentration adjustment factor (unitless)
4.  $\{\text{BR}/\text{BW}\}$  = Eight-hour breathing rate normalized to body weight (L/kg body weight - day)
5. A = Inhalation absorption factor (unitless)
6. EF = Exposure frequency (unitless), days/365 days)
7.  $10^{-6}$  = Micrograms to milligrams conversion, Liters to cubic meters conversion

**a: Recommended default values for EQ 5.4.1.2 A:**

1. WAF = See EQ. 5.4.1.2 B for formula to calculate WAF, or App. M for refined post-processing modeling to calculate WAF.
2.  $\{\text{BR}/\text{BW}\}$  = For workers, use age16-70 year, 95<sup>th</sup> percentile, moderate intensity 8-hour point estimate breathing rates (see Table 5.8). No worker breathing rate distributions exist for stochastic risk assessment.
3. A = 1
4. EF = 0.68 (250 days / 365 days). Equivalent to working 5 days/week, 50 weeks/year.

**b: Assumption for EQ 5.4.1.2 A:**

1. The fraction of chemical absorbed (A) through the lungs is the same fraction absorbed in the study on which the cancer potency factor is based.
2. The source emits during the daylight hours. Calculate WAF (EQ 5.4.1.2 B) if a special post-processing modeling run described in App. M was not completed. For nighttime emissions and exposure scenarios, see Appendix N.

**B. Equation 5.4.1.2 B:**  $\text{WAF} = (H_{\text{res}} / H_{\text{source}}) \times (D_{\text{res}} / D_{\text{source}}) \times \text{DF}$

1. WAF = Worker adjustment factor (unitless)
2.  $H_{\text{res}}$  = Number of hours per day the annual average residential air concentration is based on (always 24 hours)
3.  $H_{\text{source}}$  = Number of hours the source operates per day
4.  $D_{\text{res}}$  = Number of days per week the annual average residential air concentration is based on (always 7 days)
5.  $D_{\text{source}}$  = Number of days the emitting source operates per week
6. DF = Discount factor, for when the offsite worker's schedule partially overlaps the source's emission schedule

**b: Recommended default values for EQ 5.4.1.2 B:**

1. DF = 1 for offsite worker's schedule occurring within the source's emission schedule. A site-specific survey may be used to adjust the DF using EQ 5.4.1.2 C.

**C. Equation 5.4.1.2 C:**  $\text{DF} = (H_{\text{coincident}} / H_{\text{worker}}) \times (D_{\text{coincident}} / D_{\text{worker}})$

1.  $H_{\text{coincident}}$  = Number of hours per day the offsite worker's schedule and the source's emission schedule coincide
2.  $H_{\text{worker}}$  = Number of hours the offsite worker works per day
3.  $D_{\text{coincident}}$  = Number of days per week the offsite worker's schedule and the source's emission schedule coincide
4.  $D_{\text{worker}}$  = Number of days the offsite worker works per week

Tier 2 adjustments for EQ 5.4.1.2 A-C may be used for:

1. Eight-hour breathing rate. Point estimates in Table 5.8 for lower breathing rates of sedentary/passive and light intensity work activities may be substituted in site-specific Tier 2 scenarios. Table 5.9 can be used to estimate breathing rate intensities for various job activities. Use of different breathing rates requires a survey of the exposed workplace and approval by Air District, ARB and OEHHA.
2. Discount Factor (DF) in EQ 5.4.1.2 C. If a site-specific survey of the offsite worker schedule only partially overlaps with the source's emission schedule, then a DF less than 1 may be calculated. Use of a DF less than 1 requires a survey of the exposed workplace and approval by the Air District or ARB.

The 8-hour breathing rates are based on minute ventilation rates derived by U.S. EPA (2009). U.S. EPA employed a metabolic equivalent (METs) approach for estimating breathing rates. This method determines daily time-weighted averages of energy expenditure (expressed as multipliers of the basal metabolic rate) across different levels of physical activity. The 8-hour breathing rates shown in Table 5.8 are divided into three categories:



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Sedentary & Passive Activities (METs ≤ 1.5)

Light Intensity Activities (1.5 < METs ≤ 3.0)

Moderate Intensity Activities (3.0 < METs ≤ 6.0)

For example, a METs = 1 is roughly equivalent to energy expenditure during sleep and is close to the basal metabolic rate. A METs activity that is two to three times greater (METs = 2 to 3) is characteristic of light intensity activities, such as administrative office work or sales work as shown in Table 5.9.

Under a Tier 1 scenario, the risk assessor may simply use the 95<sup>th</sup> percentile breathing rate for moderate intensity activities of 230 L/kg-8 hrs in Eq. 5.4.1.2 A to calculate the daily dose via the inhalation route to the worker. In an example of a Tier 2 scenario, the risk assessor surveys the workplace and determines that the worker(s) at the MEIW receptor are primarily sitting at a desk performing administrative-type work on a computer. Referring to Table 5.9, this activity corresponds most closely to "administrative office work" with a mean activity level of 1.7 and a SD = 0.3. This level of activity is considered "light intensity activity" (i.e., 1.5 < METs ≤ 3.0). With the prior approval of the Air District or ARB, the risk assessor may then use the 95<sup>th</sup> percentile breathing rate of 100 L/kg-8 hr for light intensity activities in Equation 5.4.1.2 A.

**Table 5.8. Eight-Hour Breathing Rate (L/kg per 8 Hrs) Point Estimates for Males and Females Combined<sup>a,b</sup>**

	0<2 years	2<9 years	2<16 years	16<30 years	16-70 years
<b>Sedentary &amp; Passive Activities (METs ≤ 1.5)</b>					
Mean	200	100	80	30	30
95 <sup>th</sup> Percentile	250	140	120	40	40
<b>Light Intensity Activities (1.5 &lt; METs ≤ 3.0)</b>					
Mean	490	250	200	80	80
95 <sup>th</sup> Percentile	600	340	270	100	100
<b>Moderate Intensity Activities (3.0 &lt; METs ≤ 6.0)</b>					
Mean	890	470	380	170	170
95 <sup>th</sup> Percentile	1200	640	520	240	230

<sup>a</sup> For pregnant women, OEHHA recommends using the mean and 95<sup>th</sup> percentile 8-hour breathing rates based on moderate intensity activity of 16<30 year-olds for 3rd trimester.

<sup>b</sup> Breathing rates in the table may be used for worker, school, or residential exposures

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**Table 5.9. METS Distributions for Workplace and Home Activities**

Activity Description	Mean	Median	SD	Min	Max
<b>Workplace Activities</b>					
Administrative office work	1.7	1.7	0.3	1.4	2.7
Sales work	2.9	2.7	1.0	1.2	5.6
Professional	2.9	2.7	1.0	1.2	5.6
Precision/production/craft/repair	3.3	3.3	0.4	2.5	4.5
Technicians	3.3	3.3	0.4	2.5	4.5
Private household work	3.6	3.5	0.8	2.5	6.0
Service	5.2	5.3	1.4	1.6	8.4
Machinists	5.3	5.3	0.7	4.0	6.5
Farming activities	7.5	7.0	3.0	3.6	17.0
Work breaks	1.8	1.8	0.4	1.0	2.5
<b>Household/Neighborhood Activities</b>					
Sleep or nap	0.9	0.9	0.1	0.8	1.1
Watch TV	1.0	1.0	-	1.0	1.0
General reading	1.3	1.3	0.2	1.0	1.6
Eat	1.8	1.8	0.1	1.5	2.0
Do homework	1.8	1.8	-	1.8	1.8
General personal needs and care	2.0	2.0	0.6	1.0	3.0
Indoor chores	3.4	3.0	1.4	2.0	5.0
Care of plants	3.5	3.5	0.9	2.0	5.0
Clean house	4.1	3.5	1.9	2.2	5.0
Home repairs	4.7	4.5	0.7	4.0	6.0
General household chores	4.7	4.6	1.3	1.5	8.0
Outdoor chores	5.0	5.0	1.0	2.0	7.0
Walk/bike/jog (not in transit) age 20	5.8	5.5	1.8	1.8	11.3
Walk/bike/jog (not in transit) age 30	5.7	5.7	1.2	2.1	9.3
Walk/bike/jog (not in transit) age 40	4.7	4.7	1.8	2.3	7.1

Table 5.10 lists some WAFs for a few typical scenarios. For example, if the source is continuously emitting, then the offsite worker is assumed to breathe the long-term annual average concentration during their work shift. The WAF then becomes one and no concentration adjustments are necessary in this situation when estimating the inhalation cancer risk. If the source is non-continuously emitting for 8 hours/day, 5 days/week and the offsite worker's shift completely overlaps the emitting facility's operating schedule, then the WAF would be 4.2:

$$(24 \text{ hrs/day} / 8 \text{ hrs/day}) \times (7 \text{ days/week} / 5 \text{ days/week}) = 4.2$$

If the offsite worker's 8 hour/day shift only overlaps the emitting facility's operation schedule for 4 hrs/day, then the WAF is 2.1 because the DF = 0.5 will reduce the WAF by half: DF = (4 hrs/day / 8 hrs/day) x (5 days/week / 5 days/week) = 0.5



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**Table 5.10: Example Worker Adjustment Factors (WAF) to Convert a Long-Term Daily Average Emission Concentration to an Off-Site Worker Receptor Exposure**

Off-Site Workers' Shift Overlap with Facility's Emission Schedule <sup>a</sup>	Facility Operating Schedule	Adjustment Factor
8 hrs/day, 5 days/week	Continuous (24 hrs/7 days/week)	1.0
8 hrs/day, 5 days/week <sup>b</sup>	Non-continuous (8 hrs/5 days/week)	4.2
4 hrs/day, 5 days/week	Non-continuous (8 hrs/5 days/week)	2.1

<sup>a</sup> Worker works 8 hours per day, 5 days per week

<sup>b</sup> Workers' work hours completely overlap the facilities operating hours

#### 5.4.1.3 Inhalation Dose for Children at Schools and Daycare Facilities for Cancer Risk Assessment

The 8-hour breathing rates and inhalation dose equations (EQ 5.4.1.2 A-C) may also be used to estimate risk to children when exposures occur while at school or at day care facilities. Breathing rate point estimates to use in Table 5.8 depend on the ages of the children at the exposed schools and day cares. As a Tier 1 default, moderate intensity breathing rates are recommended. Equations 5.4.1.2 A-C is used in the same way to estimate dose in children as it is for workers.

#### 5.4.1.4 Non-Cancer Inhalation Exposure for Workers and Residents

For typical daily work shifts of 8-9 hours, acute, 8-hour and chronic Reference Exposure Levels (RELs) described in Chapter 8 are used in health risk assessments to characterize the noncancer risks using the Hazard Index approach described in Chapter 8 and in OEHHA (2008). Uncertainty factors are already incorporated into the RELs used to assess noncancer risk, as explained in Chapter 8, so all that is needed to evaluate the noncancer hazard is the air concentration that the worker is exposed to. The modeled maximum 1-hour air concentration is determined for acute hazard assessment and the annual average air concentration is determined for chronic hazard assessment. The modeled average air concentration during a work shift is determined for 8-hour hazard assessment using the adjusted annual average air concentration described below.

The 8-hour RELs are primarily designed to address offsite worker inhalation exposure at the MEIW because they better characterize the daily intermittent exposures of workers than the chronic RELs do. They are used in estimating the 8 hour Hazard Index for offsite workers. The 8-hour RELs should be used for typical daily work shifts of 8-9 hours. For further questions, assessors should contact OEHHA, the District, or reviewing authority to determine if the 8-hour RELs should be used in your HRA. Any discussions or directions to exclude the 8-hour REL evaluation should be documented in the HRA.

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Note, however, there are only a handful of 8-hour RELs currently adopted for use in the Hot Spots program. Therefore, we also recommend performing chronic noncancer exposure assessment for the offsite worker (MEIW) based on the annual average air concentration at the MEIW. Evaluation of the chronic Hazard Index should help protect workers who routinely work longer than 8 hour shifts. Exposure to multipathway substances also requires noncancer hazard assessment for the dermal and oral soil exposure pathways for offsite workers. Because there are few 8-hour RELs currently available, hazard assessment for the noninhalation pathways for multipathway substances is only applied when estimating the chronic Hazard Index.

In addition, the Districts may wish to determine if there is an onsite daycare at the MEIW and include a calculation of the chronic and 8-hour inhalation dose for children, although onsite hazard assessment is not a requirement for a Hot Spots risk assessment.

As explained in Section 5.4.1.2 for cancer risk, the modeled annual average air concentration is adjusted to the air concentration that the worker is actually exposed to if the facility operates non-continuously. The typical method for this adjustment is by calculating the Worker Adjustment Factor (WAF) shown in EQ 5.4.1.4 B and multiplying this value by the annual average air concentration ( $C_{air}$ , in  $\mu\text{g}/\text{m}^3$ ) in EQ 5.4.1.4 A.

Unlike cancer risk assessment, no discount factor (DF) is applied in noncancer assessment for partial overlap between the worker's schedule and the source's emission schedule. Adjustments for worker vacations, work shifts for shortened weeks (e.g., 1 - 4 days), and worker time away on weekends are also not appropriate.

An alternative refined post-processing method, described in Appendix M, may be used to estimate the air concentration the worker is exposed to during their work schedule. OEHHA may be consulted about the particular chemical involved if it is important to make a more refined analysis.

The equation to adjust the annual average air concentration to a worker 8-hour exposure concentration (i.e., the adjusted annual average ground level concentration) is expressed as:

**A. Equation 5.4.1.4 A:**  $\text{Adjusted } C_{air} (\mu\text{g}/\text{m}^3) = C_{air} \times \text{WAF}$

Where WAF is determined as:

**B. Equation 5.4.1.4 B:**  $\text{WAF} = (H_{res} / H_{source}) \times (D_{res} / D_{source})$

#### a: Assumptions for EQ 5.4.1.4 B:

1. No adjustment of the WAF allowed for partial overlap of the worker's schedule and the source's emission schedule.

Alternatives for calculating off-site worker Adjusted  $C_{air}$  in EQ 5.4.1.4 A-B:

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1. Rather than calculate the WAF for a non-continuous emitting facility, a post-processing of the hourly raw dispersion model output and examination of the hourly concentrations that fall within the offsite worker's shift can be conducted to estimate the air concentration the worker is exposed to. This method is a more refined, complex, and time consuming approach, but should result in a more representative exposure concentration. See Appendix M for information on how to simulate the exposure concentration for the off-site worker.
2. For continuously-emitting facilities (i.e., 24 hrs/day, 7 days/week), if an assessor does not wish to assume the worker breathes the long-term annual average concentration during the work shift, then a refined concentration can also be post-processed as described in Appendix M. All alternative assumptions should be approved by the reviewing authority and supported in the presentation of results.

For residential exposure to non-continuously operating facilities, the modeled maximum 1-hour and chronic air concentrations at the MEIR are determined for noncancer hazard assessment. Hazard assessment for repeated 8-hour exposure at the MEIR is not required. Chronic exposure assessment based on the annual average air concentration should adequately protect individuals, in part because residents are considered to be present at the MEIR at or near 24 hrs per day. Many facilities operate for periods longer than 8 hours per day and the hazards are better characterized based on chronic exposure. Nevertheless, differences between 8-hour and chronic exposures (i.e., higher daily 8-hour exposures vs. lower longer daily exposure 24 hrs/day) may result in different toxicological responses including potentially greater toxicological responses with either 8-hour or chronic exposure. There may also be cases such as special meteorological situations (e.g., significant diurnal-nocturnal meteorological differences) where the 8-hour REL will be more protective than the chronic REL. Thus, the air districts may also elect to have an 8-hour hazard assessment performed at the MEIR, using daily 8 hour exposures and the 8 hr RELs.

Eight-hour exposure assessment is not recommended for continuously emitting sources for residential receptors. In this situation it is only necessary to estimate chronic exposure based on the annual average concentration. However, there may be situations where the air district may wish to assess an 8-hour residential exposure to continuously operating facilities, for example, where there are significant differences in modeled concentration of emissions during the day due to diurnal wind patterns.

For estimating the air concentration from non-continuously operating facilities, EQ 5.4.1.4.A is also used to adjust the annual average concentration to what the residents are exposed to. This is the air concentration that the 8-hour REL will be compared to as discussed in Chapter 8. The alternative refined post-processing method described in Appendix M may also be used to estimate residential exposure.

In summary, the requirements for noncancer hazard assessment using the Hazard Index approach at the MEIW and MEIR are as follows.

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For offsite worker exposure:

- Acute hazard assessment based on the maximum 1-hour air concentrations and 1-hour RELs
- Eight-hour hazard assessment based on daily average 8-hour exposure (estimated using adjusted annual average air concentration in EQ 5.4.1.4 A and B or by post-processing method in App. M) for those substances with 8-hour RELs
- Chronic hazard assessment based on annual average exposure and chronic RELs, and oral chronic RELs for noninhalation routes of multipathway substances

For residential exposure:

- Acute hazard assessment based on the maximum 1-hour air concentration and 1-hour RELs
- Eight-hour hazard assessment based on daily average 8-hour exposure not required, but can be performed at the discretion of the air districts for exposure to non-continuously operating facilities based on the adjusted annual average air concentration (EQ 5.4.1.4 A and B or method in App. M). Eight-hour assessments not recommended for exposure to continuously operating facilities
- Chronic hazard assessment based on annual average exposure and chronic RELs, and oral chronic RELs for noninhalation routes of multipathway substances

#### 5.4.1.5 Exposure Frequency and Age Groupings for Noncancer Hazard Assessment

For cancer risk, the basic assumption is that risk is associated with cumulative dose of carcinogen. Thus, the dose used to estimate cancer risk can be adjusted for exposure frequency, as well as time spent within the MEIR or MEIW location. Chronic RELs are not necessarily related to cumulative dose. Thus, adjusting the estimated dose used to calculate hazard index for exposure frequency or time away from the MEIR or MEIW is not appropriate.

The average daily dose for chronic noncancer assessment is based on exposure beginning at birth to 70 years of age, necessitating calculation of a time-weighted average for age 0-2, 2-16 and 16-70 years. Since we are not applying Age Sensitivity Factors for assessing non-cancer hazard, the 3<sup>rd</sup> trimester is not explicitly called out for determining dose, as it is for cancer risk assessment. Rather adult exposure is considered, which would include pregnant women in any trimester. Both inhalation and oral RELs incorporate safety factors to protect sensitive human populations.

#### 5.4.2 Estimation of Exposure through Dermal Absorption

Exposure through dermal absorption (dose-dermal) is a function of the soil or dust loading of the exposed skin surface, the amount of skin surface area exposed, and the concentration and availability of the substance. In the previous edition of OEHA's



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exposure guidelines document (OEHHA, 2000), we recommended using specified average and high-end point estimate values for four of the variates (body weight, exposed surface area of skin, soil load on skin and frequency of exposure) in the stochastic analysis for dermal dose. This equation required multiplying values together, which could lead to overly conservative exposure estimates when high-end values were used. By combining information from the four variates into one composite distribution, over-conservatism may be avoided.

To this end, OEHHA created a new variate, "annual dermal load", or ADL, which is a composite of the body surface area (BSA) per kg body weight, exposure frequency, and soil adherence variates. Point estimates from the composite "annual dermal load" can be used for point estimate assessments while parameters and information on the type of distribution (e.g., lognormal) can be used for Tier III stochastic risk assessments. For details on the development of the ADL, refer to the Technical Support Document for Exposure and Stochastic Analysis (OEHHA, 2012).

#### 5.4.2.1 Dermal Dose for Cancer Risk Assessment

The dose through residential dermal exposure to contaminated soil varies by age and is calculated for each age group (e.g., 3rd trimester, 0<2 yrs, 2<9 yrs, 2<16 yrs, 16<30 and 16-70 yrs). These age-specific groupings are needed in order to properly use the age sensitivity factors for cancer risk assessment (see Chapter 8). This pathway is also assessed for exposure to offsite workers; a separate ADL for offsite workers is presented in Table 5.11. Children at a MEIW daycare, if present, may also be assessed for exposure if the District deems it advisable.

#### A. Equation 5.4.2.1:

$$\text{Dose}_{\text{dermal}} = \text{ADL} \times \text{Cs} \times \text{ABS} \times 10^{-9} / 365$$

1.  $\text{Dose}_{\text{dermal}}$  = Exposure dose through dermal absorption (mg/kg-d)
2. ADL = Annual dermal load (mg soil/kg BW-yr)
3.  $\text{Cs}$  = Average soil concentration ( $\mu\text{g}/\text{kg}$ )
4. ABS = Fraction absorbed across skin (unitless)
5.  $10^{-9}$  = Conversion factor for chemical & soil ( $\mu\text{g}$  to mg, mg to kg)
6. 1/365 = Conversion factor for ADL from yrs to days

#### a: Recommended default values for EQ 5.4.2.1:

1. ADL = See Table 5.11 (point estimates) & Table 5.12 a-d (distributions)
2.  $\text{Cs}$  = Calculated above in EQ 5.3.2 A
3. ABS = See Table 5.13

#### b: Assumption for EQ 5.4.2.1:

1. The ADL for the third trimester of the fetus is based on the ADL of the mother; when normalized to body weight, we assume that exposure to the

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mother and the fetus will be the same. The mother's exposure is based on that of adults 16-30 years of age in Table 5.11 and 5.12d.

2. Exposure frequency (EF) for vacation time spent away from exposure does not appear as a variate in EQ 5.4.2.1, as it is incorporated in the ADL and includes a 2-week vacation per year away from dermal soil exposure for both residents and offsite workers.

Climate will strongly influence people's choice of clothing. Due to California's varied climatic regions and existing data on clothing choices at different temperatures, three levels of climatic conditions, warm, mixed, and cold, are used to describe California's climate regions:

1. A warm climate is characteristic of Southern California areas such as Los Angeles, which can have warm to hot temperatures throughout the year.
2. A "mixed" climate is one that has warm-to-hot temperatures during much of the year (daily highs over 80 degrees are common), roughly from April to October, and cold temperatures (lows near or below freezing) during the remainder of the year. The mountains and central valley are examples of a mixed climate.
3. A cold climate is representative of San Francisco, Eureka, and other northern coastal communities, which have cool temperatures (daily highs of less than 65 degrees) for the majority of the year and can receive a considerable amount of fog and rainfall.

OEHHA recommends consulting the local air district for assistance on selecting the most appropriate climate.

**Table 5.11 Recommended Annual Dermal Load Point Estimates (in mg/kg-yr) for Dermal Exposure**

	3 <sup>rd</sup> Trimester <sup>a</sup>	Children 0<2 yrs	Children 2<9 yrs	Children 2<16 yrs	Adults <sup>b</sup>	Offsite Worker <sup>c</sup>
<b>Warm climate</b>						
Mean	$1.2 \times 10^3$	$3.6 \times 10^3$	$7.5 \times 10^3$	$6.4 \times 10^3$	$1.2 \times 10^3$	$2.6 \times 10^3$
95 <sup>th</sup> percentile	$2.6 \times 10^3$	$4.3 \times 10^3$	$9.1 \times 10^3$	$8.5 \times 10^3$	$2.6 \times 10^3$	$5.0 \times 10^3$
<b>Mixed climate</b>						
Mean	$1.1 \times 10^3$	$2.2 \times 10^3$	$6.6 \times 10^3$	$5.7 \times 10^3$	$1.1 \times 10^3$	$2.6 \times 10^3$
95 <sup>th</sup> percentile	$2.4 \times 10^3$	$2.9 \times 10^3$	$8.7 \times 10^3$	$8.1 \times 10^3$	$2.4 \times 10^3$	$5.0 \times 10^3$
<b>Cold climate</b>						
Mean	$0.7 \times 10^3$	$1.2 \times 10^3$	$3.1 \times 10^3$	$2.8 \times 10^3$	$0.7 \times 10^3$	$2.6 \times 10^3$
95 <sup>th</sup> percentile	$2.1 \times 10^3$	$1.9 \times 10^3$	$5.2 \times 10^3$	$5.1 \times 10^3$	$2.1 \times 10^3$	$5.0 \times 10^3$

<sup>a</sup> The ADL for the 3rd trimester of the fetus is based on the ADL of the mother; when normalized to body weight, we assume that exposure to the mother and the fetus will be the same

<sup>b</sup> Residential adult ADLs are for both 16<30 and 16-70 year age groups

<sup>c</sup> Assumes exposure only to face, hands and forearms regardless of climate region

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Tables 5.12a - d Annual Dermal Load Distributions by Age Group and Climate for Stochastic Analysis

Table 5.12a Annual Dermal Load (mg/kg-yr) Distributions for the 0<2 Year Age Group

Climate Type	Warm climate	Mixed climate	Cold climate
Distribution	Student's t	Logistic	Triangular
Minimum			$0.2 \times 10^{-3}$
Likeliest			$0.7 \times 10^{-3}$
Maximum			$2.6 \times 10^{-3}$
Scale	0.41	0.28	
Deg. freedom	3		
Midpoint	$3.6 \times 10^{-3}$		
Mean	$3.6 \times 10^{-3}$	$2.2 \times 10^{-3}$	$1.2 \times 10^{-3}$
50 <sup>th</sup> percentile	$3.6 \times 10^{-3}$	$2.2 \times 10^{-3}$	$0.9 \times 10^{-3}$
90 <sup>th</sup> percentile	$4.1 \times 10^{-3}$	$2.8 \times 10^{-3}$	$1.9 \times 10^{-3}$
95 <sup>th</sup> percentile	$4.3 \times 10^{-3}$	$2.9 \times 10^{-3}$	$1.9 \times 10^{-3}$
99 <sup>th</sup> percentile	$4.7 \times 10^{-3}$	$3.1 \times 10^{-3}$	$2.1 \times 10^{-3}$

Table 5.12b Annual Dermal Load (mg/kg-yr) Distributions for the 2<9 Year Age Group

Climate Type	Warm climate	Mixed climate	Cold climate
Distribution	Min extreme	Min extreme	Triangular
Minimum			$0.4 \times 10^{-3}$
Likeliest	$8.0 \times 10^{-3}$	$7.3 \times 10^{-3}$	$1.9 \times 10^{-3}$
Maximum			$6.9 \times 10^{-3}$
Scale	0.1	1.3	
Mean	$7.5 \times 10^{-3}$	$6.6 \times 10^{-3}$	$3.1 \times 10^{-3}$
50 <sup>th</sup> percentile	$7.7 \times 10^{-3}$	$6.5 \times 10^{-3}$	$2.3 \times 10^{-3}$
90 <sup>th</sup> percentile	$8.7 \times 10^{-3}$	$8.4 \times 10^{-3}$	$5.1 \times 10^{-3}$
95 <sup>th</sup> percentile	$9.1 \times 10^{-3}$	$8.7 \times 10^{-3}$	$5.2 \times 10^{-3}$
99 <sup>th</sup> percentile	$9.7 \times 10^{-3}$	$9.4 \times 10^{-3}$	$5.7 \times 10^{-3}$

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Table 5.12c Annual Dermal Load (mg/kg-yr) Distributions for the 2<16 Year Age Group

Climate Type	Warm climate	Mixed climate	Cold climate
Distribution	Min extreme	Logistic	Triangular
Minimum			$0.3 \times 10^{-3}$
Likeliest	$7.2 \times 10^{-3}$		$1.6 \times 10^{-3}$
Maximum			$6.9 \times 10^{-3}$
Scale	1.29	0.91	
Mean	$6.4 \times 10^{-3}$	$5.7 \times 10^{-3}$	$2.8 \times 10^{-3}$
50 <sup>th</sup> percentile	$6.6 \times 10^{-3}$	$5.7 \times 10^{-3}$	$2.2 \times 10^{-3}$
90 <sup>th</sup> percentile	$8.1 \times 10^{-3}$	$7.7 \times 10^{-3}$	$4.8 \times 10^{-3}$
95 <sup>th</sup> percentile	$8.5 \times 10^{-3}$	$8.1 \times 10^{-3}$	$5.1 \times 10^{-3}$
99 <sup>th</sup> percentile	$9.3 \times 10^{-3}$	$8.9 \times 10^{-3}$	$5.6 \times 10^{-3}$

Table 5.12d Annual Dermal Load (mg/kg-yr) Distributions for Residential Adults (Age 16-30 and 16-70 Years)<sup>a</sup> and Offsite Workers

Receptor	Residential Adult			Offsite Worker
Climate Type	Warm	Mixed	Cold	All Climates <sup>b</sup>
Distribution	Beta	Beta	Gamma	Lognormal
Minimum	$0.2 \times 10^{-3}$	$0.02 \times 10^{-3}$		
Maximum	$3.3 \times 10^{-3}$	$0.3 \times 10^{-3}$		
Scale			0.07	
Mean	$1.2 \times 10^{-3}$	$1.1 \times 10^{-3}$	$0.7 \times 10^{-3}$	$2.6 \times 10^{-3}$
50 <sup>th</sup> percentile	$1.2 \times 10^{-3}$	$1.0 \times 10^{-3}$	$0.5 \times 10^{-3}$	$2.3 \times 10^{-3}$
90 <sup>th</sup> percentile	$2.4 \times 10^{-3}$	$2.1 \times 10^{-3}$	$1.6 \times 10^{-3}$	$4.5 \times 10^{-3}$
95 <sup>th</sup> percentile	$2.6 \times 10^{-3}$	$2.4 \times 10^{-3}$	$2.1 \times 10^{-3}$	$5.0 \times 10^{-3}$
99 <sup>th</sup> percentile	$2.9 \times 10^{-3}$	$2.6 \times 10^{-3}$	$2.3 \times 10^{-3}$	$6.4 \times 10^{-3}$

<sup>a</sup> The ADL distribution for the 3rd trimester is based on the ADL distribution of the mother; we assume the same ADL distribution for residential adult (the mother) and the fetus

<sup>b</sup> Face, hands and forearms are exposed only, regardless of climate

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**Table 5.13 Dermal Absorption Fraction Factors (ABS) as Percent from Soil for Semi-Volatile and Solid Chemicals under the OEHH “Hot Spots” Program**

Chemical	ABS
<b>Inorganic chemicals</b>	
Arsenic	6
Beryllium	3
Cadmium	0.2
Chromium (VI)	2
Fluorides (soluble compounds)	3
Lead	3
Mercury	4
Nickel	2
Selenium	3
<b>Organic chemicals</b>	
Creosotes	13
Diethylhexylphthalate	9
Hexachlorobenzene	4
Hexachlorocyclohexanes	3
4,4'-methylene dianiline	10
Pentachlorophenol	<sup>a</sup>
Polychlorinated biphenyls	14
Polychlorinated dibenzo-p-dioxins and dibenzofurans	3
Polycyclic aromatic hydrocarbons	13

<sup>a</sup> To be determined in future amendments to the Hot Spots Program

Skin permeability is related to the solubility or strength of binding of the chemical in the delivery matrix (soil or other particles) versus the receptor matrix, the skin's stratum corneum. Fractional dermal absorption point estimate values were derived by OEHH from available literature sources for the semi-volatile and nonvolatile chemicals in the “Hot Spots” program. The rationale for the chemical-specific dermal absorption fraction values, and the use of default values in cases where sufficient data are lacking, can be found in Appendix F of the Technical Support Document for Exposure and Stochastic Analysis (OEHH, 2012).

### 5.4.2.2 Chronic Noncancer Dermal Dose

Dermal exposure, and thus annual dermal load (ADL), varies by age group. Therefore, a time-weighted average ADL for age 0-70 years (0-2, 2-16, and 16-70 years) is estimated for chronic residential exposure using ADL values in Table 5.12. This exposure pathway is also assessed for offsite workers using the offsite worker ADL values in Table 5.12d. Children at a MEIW daycare, if present, may also be assessed for exposure if the District deems it advisable. The contribution to the dermal dose is determined for each age group in EQ 5.4.2.2:

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**A. Equation 5.4.2.2:**  $\text{Dose}_{\text{dermal}} = \text{ADL} \times \text{Cs} \times \text{ABS} \times 10^{-9} \times \text{ED/AT} \times (1/350)$

1.  $\text{Dose}_{\text{dermal}}$  = Exposure dose through dermal absorption (mg/kg/d)
2. ADL = Annual dermal load (mg/kg-yr), age-specific
3. Cs = Average soil concentration (μg/kg)
4. ABS = Fraction absorbed across skin (unitless)
5.  $10^{-9}$  = Conversion factor for chemical & soil (μg to mg, mg to kg)
6. 1/350 = Conversion factor for ADL from yrs to days (Note: this conversion is needed to remove EF, expressed as 350 days/365 days, from the ADLs in Table 5.12a-d)
7. ED = Exposure duration for specified age groups: 2 yrs for 0<2, 14 yrs for 2<16, 54 yrs for 16-70 for residential exposure,
8. AT = Averaging time for residential exposure – 70 yrs

### a: Recommended default values for EQ 5.4.2.2:

1. ADL = See Table 5.11 for point estimates by age group, climate region and receptor type (resident or worker)
2. Cs = Calculated above in EQ 5.3.2 A
3. ABS = See Table 5.13

### b: Recommended off-site worker default modifications to EQ 5.4.2.2:

1. Chronic dermal dose to the off-site worker assumes only adult exposure and is incorporated into the off-site worker ADL in Table 5.12d.
2. A time-weighted average estimate of dose is not necessary and the ED and AT variates are left out of EQ 5.4.2.2 for dermal dose to the worker.

### c: Recommended nursing mother default modifications to EQ 5.4.2.2:

1. For dermal dose to mother's milk, use the ADL for age 16-30 years in Table 5.12d.
2. The ED and AT variates in EQ 5.4.2.2 are left out for dermal dose in the mother's milk pathway.

### d: Assumptions for EQ 5.4.2.2:

1. For cancer risk assessment, Exposure Frequency (EF) for vacation time away from exposure is incorporated into the ADLs shown in Tables 5.11 and 5.12 using the basic assumption that cancer risk is associated with cumulative dose of carcinogen. The dose used to estimate cancer risk can be adjusted for EF, and for time spent within the MEIR or MEIW location. Chronic RELs are not necessarily related to cumulative dose. Thus, adjusting the estimated dose for EF at the MEIR or MEIW is not appropriate, and the unadjusted daily rate is used in EQ 5.4.2.2.
2. For worker exposure, the annual average concentration should not be adjusted to account for worker and facility emission schedules, as done for

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inhalation cancer risk assessment. The pollutant will be deposited and accumulate in the soil in the absence or presence of the worker; therefore, the total deposition and soil concentration will be dependent on the annual average air concentration.

For residential chronic exposure, the dermal dose contribution for each age group is summed together to obtain the time-weighted average daily dermal dose for chronic hazard assessment:

$$(\text{ADL age } 0 < 2 \times C_s \times \text{ABS} \times 10^{-9} \times 2 / 70 \times (1/350)) +$$

$$(\text{ADL age } 2 < 16 \times C_s \times \text{ABS} \times 10^{-9} \times 14 / 70 \times (1/350)) +$$

$$(\text{ADL age } 16-70 \times C_s \times \text{ABS} \times 10^{-9} \times 54 / 70 \times (1/350)) = \text{Chronic Dose}_{\text{dermal}}$$

#### 5.4.3 Estimation of Exposure through Ingestion

Exposure through ingestion is a function of the concentration of the substance in the ingested soil, water, and food, the gastrointestinal absorption of the substance, and the amount ingested.

##### 5.4.3.1 Exposure through Ingestion of Soil

There are no distributions for soil ingestion currently recommended. Tier III stochastic risk assessments should include a high-end point estimate of soil ingestion, soil loading, exposure frequency and soil area.

##### 5.4.3.1.1 Soil Ingestion Dose for Cancer Risk

The exposure dose through residential soil ingestion varies by age and is calculated for each age group (e.g., 3rd trimester, 0<2 yrs, 2<9 yrs, 2<16 yrs, 16<30 and 16-70 yrs). These age-specific groupings are needed in order to properly use the age sensitivity factors for cancer risk assessment (see Chapter 8). This pathway is also assessed for exposure to off-site workers. Children at a MEIW daycare, if present, may also be assessed for exposure if the District deems it advisable. The dose from inadvertent soil ingestion can be estimated by the point estimate approach using the following general equation:

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**A. Equation 5.4.3.1.1:**  $\text{DOSE}_{\text{soil}} = C_{\text{soil}} \times \text{GRAF} \times \text{SIR} \times 10^{-9} \times \text{EF}$

1.  $\text{DOSE}_{\text{soil}}$  = Dose from soil ingestion (mg/kg BW-day)
2.  $10^{-9}$  = Conversion factor ( $\mu\text{g}$  to mg, mg to kg)
3.  $C_{\text{soil}}$  = Concentration of contaminant in soil ( $\mu\text{g}/\text{kg}$ )
4. GRAF = Gastrointestinal relative absorption fraction, chemical-specific (unitless)
5. SIR = Soil ingestion rate (mg/kg BW-day)
6. EF = Exposure frequency (unitless), (days/365 days)

#### a: Recommended default values for EQ 5.4.3.1.1:

1.  $C_{\text{soil}}$  = Calculated above in EQ 5.3.2 A
2. GRAF = See Table 5.2
3. SIR = See Table 5.14
4. EF = 350 d/year resident, 250 d/year worker

In this approach, it is assumed that the soil ingested contains a representative concentration of the contaminant(s) and the concentration is constant over the exposure period.

The term **GRAF**, or gastrointestinal relative absorption factor, is defined as the fraction of contaminant absorbed by the GI tract relative to the fraction of contaminant absorbed from the matrix (feed, water, other) used in the study(ies) that is the basis of either the cancer potency factor (CPF) or the Reference Exposure Level (REL). If no data are available to distinguish absorption in the toxicity study from absorption from the environmental matrix in question (i.e., soil), then GRAF = 1. The GRAF allows for adjustment for absorption from a soil matrix if it is known to be different from absorption across the GI tract in the study used to calculate the CPF or REL. In most instances, the GRAF will be 1.

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**Table 5.14 Recommended Soil Ingestion Rate (SIR) Estimates for Adults and Children (mg/kg-day)\***

Age Groups (years)	Mean (mg/kg-day)	95 <sup>th</sup> % (mg/kg-day)
3rd Trimester <sup>a</sup>	0.7	3
0<2	20	40
2<9	5	20
2<16	3	10
16<30	0.7	3
16 to 70	0.6	3
PICA adult	NR	-

<sup>a</sup> Assumed to be the mother's soil ingestion rate (adult age 16 <30)

\* Soil includes outdoor settled dust

NR = No recommendation

### 5.4.3.1.2 Chronic Noncancer Dose for Soil Ingestion

The soil ingestion rate varies by age. A time-weighted average approach is used to combine soil intake rates of the age groupings (i.e., 0<2 yrs, 2<16 yrs, and 16-70 yrs) to determine the residential soil ingestion dose for chronic noncancer hazard assessment. This pathway is also assessed for exposure to offsite workers using the adult intake values for age 16-70 years in Table 5.14. Children at a MEIW daycare, if present, may also be assessed for exposure if the District deems it advisable. The contribution to the soil ingestion dose by each age group is determined in EQ 5.4.3.1.2:

**A. Equation 5.4.3.1.2:**  $DOSE_{soil} = C_{soil} \times GRAF \times SIR \times 10^{-9} \times ED/AT$

1.  $DOSE_{soil}$  = Dose from soil ingestion (mg/kg BW-day)
2.  $10^{-9}$  = Conversion factor ( $\mu$ g to mg, mg to kg)
3.  $C_{soil}$  = Concentration of contaminant in soil ( $\mu$ g/kg)
4. GRAF = Gastrointestinal relative absorption fraction, unitless; chemical-specific
5. SIR = Soil ingestion rate (mg/kg BW-day)
6. ED = Exposure duration for a specified age group: 2 yrs for 0<2, 14 yrs for 2<16, 54 yrs for 16-70
7. AT = Averaging time for lifetime exposure – 70 yrs

#### a: Recommended default values for EQ 5.4.3.1.2:

1.  $C_{soil}$  = Calculated above in EQ 5.3.2 A
2. GRAF = See Table 5.2
3. SIR = See Table 5.14; use 16-70 age group SIR for workers

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#### b: Recommended off-site worker default modifications to EQ 5.4.3.1.2:

1. A time-weighted average estimate of dose is not necessary and the ED and AT variates are left out of EQ 5.4.3.1.2 for oral soil dose to the worker.

#### c: Recommended nursing mother default modifications to EQ 5.4.3.1.2:

1. For mother's ingested soil dose to milk, use the SIR for age 16-30 years in Table 5.14.
2. The ED and AT variates in EQ 5.4.3.1.2 are left out for soil ingestion dose in the mother's milk pathway.

#### d: Assumptions for EQ 5.4.3.1.2:

1. For worker exposure, the annual average concentration should not be adjusted to account for overlap of worker and facility emission schedules. The pollutant will be deposited and accumulate in the soil in the absence or presence of the worker; therefore, the total deposition and soil concentration will be dependent on the annual average air concentration.

For residential exposure, the soil ingestion dose contribution for each age group is summed together to obtain the time-weighted average daily soil intake dose for chronic hazard assessment:

$$(SIR \text{ for age } 0<2 \text{ yrs} \times C_{soil} \times GRAF \times 10^{-9} \times 2 / 70) +$$

$$(SIR \text{ for age } 2<16 \text{ yrs} \times C_{soil} \times GRAF \times 10^{-9} \times 14 / 70) +$$

$$(SIR \text{ for age } 16-70 \text{ yrs} \times C_{soil} \times GRAF \times 10^{-9} \times 54 / 70) = \text{Chronic Dose}_{soil}$$

### 5.4.3.2 Exposure through Ingestion of Food

The exposure through food ingestion can be through ingestion of home-grown plant products (categorized as leafy, protected, exposed and root produce), home-raised animals (categorized as meat, cow's milk and eggs), angler-caught fish and mother's milk. When a specific food pathway is a dominant pathway (e.g., homegrown produce), and multiple pathways such as home raised meat, milk, and eggs categories all need to be assessed, the 95<sup>th</sup> percentile default consumption rate for the driving exposure pathway is used, while the mean consumption values for the remaining exposure pathways (i.e., food categories) are used. See Section 8.2.6 for a complete discussion of the methodology on how to implement the derived methodology.

#### 5.4.3.2.1 Dose for Cancer Risk from Home-Grown Produce

Exposure through ingesting home-grown produce ( $DOSE_p$ ) is a function of the type of crop (i.e., exposed, leafy, protected, root), gastrointestinal relative absorption factor, bioavailability and the fraction of plant ingested that is homegrown. The calculation is done for each type of crop, then summed to get total dose for this pathway. The

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exposure dose through ingestion of home-grown produce varies by age and is calculated for each age group (e.g., 3rd trimester, 0<2 yrs, 2<9 yrs, 2<16 yrs, 16<30 and 16-70 yrs). These age-specific groupings are needed in order to properly use the age sensitivity factors for cancer risk assessment (see Chapter 8).

#### A. Equation 5.4.3.2.1: $DOSE_p = C_v \times IP \times GRAF \times L \times EF \times 10^{-6}$

1.  $DOSE_p$  = Exposure dose through ingestion of home-grown produce (mg/kg/d)
2.  $C_v$  = Concentration in specific type of crop, i.e., exposed, leafy, protected, root ( $\mu\text{g/kg}$ )
3.  $IP$  = Consumption of specific type of crop (g/kg BW\*day)
4.  $GRAF$  = Gastrointestinal relative absorption factor (unitless)
5.  $L$  = Fraction of plant type consumed that is home-grown or locally grown (unitless)
6.  $EF$  = Exposure frequency (unitless, days/365 days)
7.  $10^{-6}$  = Conversion factors ( $\mu\text{g/kg}$  to mg/g)

#### a: Recommended default values for Equation 5.4.3.2.1:

1.  $C_v$  = Calculated above in EQ 5.3.4.1 A
2.  $IP$  = See Table 5.15 (point estimates) and 5.16a-e (distributions)
3.  $GRAF$  = See Table 5.2
4.  $L$  = Site-specific survey is recommended. Otherwise, see Table 5.17 for Tier I default values
5.  $EF$  = 0.96 (350 d/365 d in a yr)

Once the dose for each type of crop that applies is calculated (See Section 5.3.4.1 for definition of crops types), the doses are summed to get the total dose for the home-grown produce pathway:

Total  $DOSE_p$  =  $DOSE_p$  (leafy) +  $DOSE_p$  (root) +  $DOSE_p$  (exposed) +  $DOSE_p$  (protected)

The total home-grown produce dose will need to be calculated for each age group that applies.

#### 5.4.3.2.2 Dose for cancer risk from home-raised meat, eggs, and cow's milk

Exposure through ingesting home-raised or farm animal products ( $DOSE_{fa}$ ) is a function of the type of food (meat, eggs and cow's milk), gastrointestinal relative absorption factor, bioavailability and the fraction of food ingested that is home-raised. The only meat sources considered here are beef, pork and poultry. Unlike the home-grown produce pathway, the dose is calculated and presented separately for each type of home-raised food. The age-specific groupings to determine dose (3rd trimester, 0<2 yrs, 2<9 yrs, 2<16 yrs, 16<30 yrs or 16-70 yrs) is needed in order to properly use the age sensitivity factors for cancer risk assessment (see Chapter 8).

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#### A. Equation 5.4.3.2.2: $DOSE_{fa} = C_{fa} \times I_{fa} \times GRAF \times L \times EF \times 10^{-6}$

1.  $DOSE_{fa}$  = Exposure dose through ingestion of home-raised animal product (mg/kg/d)
2.  $C_{fa}$  = Concentration in animal product, e.g., beef, pork, poultry, dairy, eggs ( $\mu\text{g/kg}$ )
3.  $I_{fa}$  = Consumption of animal product (g/kg BW-day)
4.  $GRAF$  = Gastrointestinal relative absorption factor (unitless)
5.  $L$  = Fraction of animal product consumed that is home-raised or locally produced (unitless)
6.  $EF$  = Exposure frequency (unitless, days/365 days)
7.  $10^{-6}$  = Conversion factors ( $\mu\text{g/kg}$  to mg/g)

#### a: Recommended default values for EQ 5.4.3.2.2:

1.  $C_{fa}$  = Calculated above in EQ 5.3.4.2 A
2.  $I_{fa}$  = See Table 5.15 (point estimates) and Table 5.16a-e (distributions)
3.  $GRAF$  = See Table 5.2
4.  $L$  = Site-specific survey is recommended. Otherwise, see Table 5.17 for Tier I default values
5.  $EF$  = 0.96 (350 days / 365 days in a year)

#### 5.4.3.2.3 Chronic Noncancer Dose for Ingestion of Food

For oral noncancer hazard assessment, a time-weighted average approach is used to combine food ingestion rates for the age groups (i.e., 0<2, 2<16 and 16-70 yrs) to estimate the chronic dose for residential exposure. The equation used to estimate dose through home-grown produce and home-raised meat/eggs/cow's milk is similar and is shown below in one equation. Similar to the cancer risk dose calculation, home-grown produce is presented as a total dose for all types of crops (See Section 5.4.3.2.1) and home-raised animal product dose is presented separately for each type of animal product that applies (See Section 5.4.3.2.2).

The contribution to the food intake dose is determined for each age group in EQ 5.4.3.2.3:

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### A. Equation 5.4.3.2.3: $DOSE_{food} = C_{food} \times I_{food} \times GRAF \times L \times 10^{-6} \times ED/AT$

1.  $DOSE_{food}$  = Exposure dose through ingestion of home-grown produce or home-raised animal product (mg/kg/d)
2.  $C_{food}$  = Concentration ( $\mu\text{g/kg}$ ) in produce (e.g., exposed, leafy, protected, root) or animal product (e.g., beef, pork, poultry, dairy, eggs)
3.  $I_{food}$  = Consumption of produce or animal product (g/kg BW-day)
4.  $GRAF$  = Gastrointestinal relative absorption factor (unitless)
5.  $L$  = Fraction of produce or animal product consumed that is home-grown (unitless)
6.  $10^{-6}$  = Conversion factors ( $\mu\text{g/kg}$  to  $\text{mg/g}$ )
7.  $ED$  = Exposure duration for a specified age group (2 yrs for 0<2, 14 yrs for 2<16, 54 yrs for 16-70)
8.  $AT$  = Averaging time for lifetime exposure: 70 yrs

#### a: Recommended default values for EQ 5.4.3.2.3:

1.  $C_{food}$  = Calculated above in EQ 5.3.4.1 A (for home-grown produce) or EQ 5.3.4.2 A (for home-raised animal products)
2.  $I_{food}$  = Age-specific, see Table 5.15 for point estimates
3.  $GRAF$  = See Table 5.2
4.  $L$  = Site-specific survey is recommended. Otherwise, see Table 5.17 for Tier I default values

#### b: Recommended nursing mother default modifications to EQ 5.4.3.2.3:

1. For the mother's dose to milk through ingested food, use the food intake rates for age 16-30 years in Table 5.15 and 5.16d.
2. The ED and AT variates in EQ 5.4.3.2.3 are left out for ingested food dose in the mother's milk pathway.

Following calculation of the intake dose contributions for each age group, the intake rates for home-grown produce and the intake rates for home-raised animal products are summed separately to obtain the residential time-weighted average intake dose for chronic residential exposure to home-grown produce and to home-raised animal products:

$$(I_{food} \text{ for age } 0<2 \text{ yrs} \times C_{food} \times GRAF \times L \times 10^{-6} \times 2 / 70) +$$

$$(I_{food} \text{ for age } 2<16 \text{ yrs} \times C_{food} \times GRAF \times L \times 10^{-6} \times 14 / 70) +$$

$$(I_{food} \text{ for age } 16-70 \text{ yrs} \times C_{food} \times GRAF \times L \times 10^{-6} \times 54 / 70) = \text{Chronic } DOSE_{food}$$

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**Table 5.15 Recommended Average and High End Point Estimate Values for Home Produced Food Consumption (g/kg-day)**

Food Category	Third Trimester		Ages 0<2		Ages 2<9	
	Avg.	High End	Avg.	High End	Avg.	High End
Produce						
Exposed	1.9	5.9	11.7	30.2	7.4	21.7
Leafy	0.9	3.2	3.8	10.8	2.5	7.9
Protected	1.7	5.8	5.9	17.5	4.7	13.3
Root	1.7	4.6	5.7	15.3	3.9	10.8
Meat						
Beef	2.0	4.8	3.9	11.3	3.5	8.6
Poultry	0.9	2.9	2.9	10.5	2.2	7.8
Pork	1.8	4.7	4.5	11.4	3.7	9.0
Milk	5.4	15.9	50.9	116	23.3	61.4
Eggs	1.6	4.2	6.1	15.0	3.9	9.4
	Ages 2>16		Ages 16<30		Ages 16-70	
Produce	Avg.	High End	Avg.	High End	Avg.	High End
Exposed	1.9	5.9	1.9	5.9	1.8	5.6
Leafy	0.9	3.2	0.9	3.2	1.1	3.4
Protected	1.7	5.8	1.7	5.8	1.6	5.2
Root	1.7	4.6	1.7	4.6	1.5	4.2
Meat						
Beef	2.0	4.8	2.0	4.8	1.7	4.4
Poultry	0.9	2.9	0.9	2.9	0.9	2.8
Pork	1.8	4.7	1.8	4.7	1.5	3.8
Milk	5.4	15.9	5.4	15.9	4.3	13.2
Eggs	1.6	4.2	1.6	4.2	1.3	3.4

<sup>a</sup> Food consumption values for 3<sup>rd</sup> trimester calculated by assuming that the fetus receives the same amount of contaminated food on a per kg BW basis as the mother (adult age 16 to less than 30).



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**Table 5.16a - e Parametric Models of Per Capita Food Consumption by Age Group for Stochastic Analysis**

**Table 5.16a Per Capita Food Consumption (g/kg-day) for Ages 0<2**

Food Category	Distrib. Type	Anderson-Darling Statistic	Mean	Std. Dev	Location	Scale	Shape	Like-liest
Produce								
Exposed	Gamma	60			0.01	6.56	0.830	
Leafy	Gamma	167			0.01	3.30	1.161	
Protected	LogN	67	6.03	7.31				
Root	Gamma	83			0.06	4.44	1.28	
Meat								
Beef	LogN	16	1.97	1.73				
Poultry	LogN	58	4.5	4.08				
Pork	LogN	230	3.00	4.46				
Dairy	Max Ext.	169				27.82		33.79
Eggs	LogN	172	6.11	4.21				

**Table 5.16b Per Capita Food Consumption (g/kg-day) for Ages 2<9**

Food Category	Distribution Type	Anderson-Darling Statistic	Mean	Std. Dev	Location	Scale	Shape	Rate
Produce								
Exposed	Exponential	206						0.14
Leafy	LogN	127	2.64	3.89				
Protected	Weibull	68			0.02	4.76	1.063	
Root	LogN	60	3.95	3.85				
Meat								
Beef	LogN	35	3.55	2.79				
Poultry	LogN	17	3.71	2.67				
Pork	LogN	66	2.25	2.84				
Milk	LogN	12	23.4	20.78				
Eggs	LogN	38	3.93	3.00				

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**Table 5.16c Per Capita Food Consumption (g/kg-day) for Ages 2<16**

Food Category	Distribution Type	Anderson-Darling Statistic	Mean	Std. Dev	Location	Scale	Shape
Produce							
Exposed	Gamma	60			0.01	6.54	0.8325
Leafy	LogN	68	1.83	2.91			
Protected	Gamma	47			0.00	3.69	0.9729
Root	LogN	51	3.10	3.44			
Meat							
Beef	LogN	10	2.96	2.49			
Poultry	LogN	27	2.98	2.52			
Pork	LogN	48	1.84	2.79			
Milk	LogN	35	16.8	19.2			
Eggs	LogN	71	3.16	2.95			

**Table 5.16d Per Capita Food Consumption (g/kg-day) for Ages 16<30<sup>a</sup>**

Food Category	Distribution Type	Anderson-Darling Statistic	Mean	Std. Dev	Location	Scale	Shape
Produce							
Exposed	Gamma	70			0.01	2.05	0.9220
Leafy	Weibull	191			0.00	0.88	0.8732
Protected	LogN	93	1.81	3.31			
Root	LogN	43	1.69	1.69			
Meat							
Beef	LogN	26	1.98	1.54			
Poultry	LogN	26	1.80	1.42			
Pork	LogN	242	1.01	1.74			
Milk	Gamma	22			0.02	5.66	0.9421
Eggs	LogN	29	1.55	1.36			

<sup>a</sup> These distributions are also recommended for the third trimester. Food consumption values for 3<sup>rd</sup> trimester are calculated by assuming that the fetus receives the same amount of contaminated food on a per kg BW basis as the mother (adult age 16<30).

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**Table 5.16e Per Capita Food Consumption (g/kg-day) for Ages 16-70**

Food Category	Distribution Type	Anderson-Darling Statistic	Mean	Std. Dev	Location	Scale	Shape
Produce							
Exposed	Gamma	148			0.01	2.07	0.8628
Leafy	Gamma	83			0.00	1.15	0.9713
Protected	Gamma	78			0.01	1.90	0.8325
Root	Gamma	14			0.00	1.28	1.166
Meat							
Beef	LogN	20	1.75	1.40			
Poultry	LogN	18	1.53	1.18			
Pork	LogN	190	0.97	1.59			
Milk	Gamma	20			0.00	4.50	0.9627
Eggs	LogN	30	1.3	1.01			

**Table 5.17 Default Values for L in EQs 5.4.3.2.1., 5.4.3.2.2 and 5.4.3.2.3: Fraction of Food Intake that is Home-Produced**

Food Type	Households that Garden <sup>a</sup>	Households that Farm <sup>a</sup>
Avg. Total Veg & Fruits	0.137	0.235
	Households that Garden/Hunt <sup>b</sup>	Households that Farm <sup>b</sup>
Beef	0.485	0.478
Pork	0.242	0.239
Poultry	0.156	0.151
Eggs	0.146	0.214
Total Dairy (Cow's milk)	0.207	0.254

<sup>a</sup> As a default for home-produced leafy, exposed, protected and root produce, OEHHA recommends 0.137 as the fraction of produce that is home-grown. The households that grow their own vegetables and fruits are the population of concern. In rural situations where the receptor is engaged in farming, OEHHA recommends 0.235 as the default value for fraction of leafy, exposed, protected and root produce that is home-grown.

<sup>b</sup> OEHHA recommends the fraction home-raised under "Households that raise animals/hunt" (for beef, pork, poultry (chicken), eggs and dairy (cow's milk), with the exception of rural household receptors engaged in farming. OEHHA recommends that the fractions listed under "Households that farm" be used for the rural household receptors.

## 5.4.3.3 Exposure through Ingestion of Water

Intake of drinking water varies by age on a ml per kg body weight per day basis resulting in differences in exposure dose by age. The age-specific groupings to determine dose are needed in order to properly use the age sensitivity factors for

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cancer risk assessment (see Chapter 8) and to calculate a time-weighted average dose for chronic noncancer assessment.

## 5.4.3.3.1 Dose for Cancer Risk through Ingestion of Water

DOSE<sub>water</sub> is calculated for each age group (i.e., 3rd trimester, 0<2 yrs, 2<9 yrs, 2<16 yrs, 16<30 yrs and 16-70 yrs), then incorporated into EQ 8.2.5 in Chapter 8 to determine cancer risk through exposure in drinking water.

**A. Equation 5.4.3.3.1:**  $DOSE_{water} = C_w \times WIR \times ABS_{swa} \times Fdw \times EF \times 10^{-6}$

1. DOSE<sub>water</sub> = Exposure dose through ingestion of water (mg/kg BW/d)
2. C<sub>w</sub> = Water concentration (µg/L)
3. WIR = Water ingestion rate (ml/kg BW-day)
4. ABS<sub>swa</sub> = Gastrointestinal relative absorption factor (unitless)
5. Fdw = Fraction of drinking water from contaminated source
6. EF = Exposure frequency (unitless, days/365 days)
7. 10<sup>-6</sup> = Conversion factors (mg/µg)(L/ml)

## a: Recommended default values for EQ 5.4.3.3.1:

1. C<sub>w</sub> = Calculated above 5.3.3 A
2. WIR = See 5.18 (point estimates) and Table 5.19 (distributions)
3. ABS<sub>swa</sub> = Default set to 1
4. Fdw = Default set to 1, although a site-specific survey is recommended for this variate
5. EF = 0.96 (350 days/365 days in a year)

## 5.4.3.3.2 Chronic Noncancer Dose through Ingestion of Water

Because water intake varies by age group, a time-weighted average intake approach is used to determine the daily water ingestion dose for chronic residential exposure. The contribution to the water ingestion dose is determined for each age group (i.e., 0<2, 2<16 and 16-70 yrs) in EQ 5.4.3.3.2.

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### A. Equation 5.4.3.3.2:

$$\text{DOSE}_{\text{water}} = C_w \times \text{WIR} \times \text{ABS}_{\text{swa}} \times \text{Fdw} \times 10^{-6} \times \text{ED}/\text{AT}$$

1.  $\text{DOSE}_{\text{water}}$  = Exposure dose through ingestion of water (mg/kg BW/d)
2.  $C_w$  = Water concentration ( $\mu\text{g/L}$ )
3. WIR = Water ingestion rate (ml/kg BW-day)
4.  $\text{ABS}_{\text{swa}}$  = Gastrointestinal absorption factor
5. Fdw = Fraction of drinking water from contaminated source (site-specific)
6.  $10^{-6}$  = Conversion factors (mg/ $\mu\text{g}$ )(L/ml)
7. ED = Exposure duration for a specified age group: 2 yrs for 0<2, 14 yrs for 2<16, 54 yrs for 16-70
8. AT = Averaging time for residential exposure: 70 yrs

#### a: Recommended default values for EQ 5.4.3.3.2:

1.  $C_w$  = Calculated above in 5.3.3 A
2. WIR = See 5.18 (point estimates)
3.  $\text{ABS}_{\text{swa}}$  = Default set to 1
4. Fdw = Default set to 1, although a site-specific survey is recommended for this variate

#### b: Recommended nursing mother default modifications to EQ 5.4.3.3.2:

1. For the dose to mother's milk through water ingestion, use the WIR for age 16-30 years in Table 5.18.
2. The ED and AT variates in EQ 5.4.3.3.2 are left out for ingested water dose in the mother's milk pathway.

The water intake dose contribution for each age group is summed together to obtain the time-weighted average daily residential water ingestion dose:

$$(\text{WIR for age } 0<2 \text{ yrs} \times C_w \times \text{ABS}_{\text{swa}} \times \text{Fdw} \times 10^{-6} \times 2 / 70) +$$

$$(\text{WIR for age } 2<16 \text{ yrs} \times C_w \times \text{ABS}_{\text{swa}} \times \text{Fdw} \times 10^{-6} \times 14 / 70) +$$

$$(\text{WIR for age } 16-70 \text{ yrs} \times C_w \times \text{ABS}_{\text{swa}} \times \text{Fdw} \times 10^{-6} \times 54 / 70) = \text{Chronic Dose}_{\text{water}}$$

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**Table 5.18 Recommended Point Estimate  
Tap Water Intake Rates (ml/kg-day)**

Point Estimates				
Using Mean Values	For the Age Period	9-year scenario	30-year scenario	70-year scenario
	3 <sup>rd</sup> trimester	18	18	18
	0<2 years	113	113	113
	2<9 years	26	-	-
	2<16 years	-	24	24
	16-30 years	-	18	-
	16-70 years	-	-	18
Using 95 <sup>th</sup> -percentile values	For the Age Period	9-year scenario	30-year scenario	70-year scenario
	3 <sup>rd</sup> trimester	47	47	47
	0<2 years	196	196	196
	2<9 years	66	-	-
	2<16 years	-	61	61
	16-30 years	-	47	-
	16-70 years	-	-	45

**Table 5.19 Recommended Distributions of Tap Water Intake Rates  
(ml/kg-day) for Stochastic Risk Assessment**

	9-year scenario	30-year scenario	70-year scenario
0<2 years	<b>Max Extreme</b> Likeliest = 93 Scale = 35	<b>Max Extreme</b> Likeliest = 93 Scale = 35	<b>Max Extreme</b> Likeliest = 93 Scale = 35
2<9 years	<b>Weibull</b> Location = 0.02 Scale = 29 Shape = 1.3		
2<16 years		<b>Gamma</b> Location = 0.19 Scale = 15.0 Shape = 1.6	<b>Gamma</b> Location = 0.19 Scale = 15.0 Shape = 1.6
16-30 years		<b>Gamma</b> location=0.49 scale=13.6 shape=1.26	
16-70 years			<b>Beta</b> min=0.17 max=178 alpha=1.5 beta= 12.9

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#### 5.4.3.4 Exposure through Ingestion of Angler-caught Fish

Exposure through ingestion of angler-caught fish ( $DOSE_{fish}$ ) is a function of the fraction of fish ingested that is caught in the exposed water body, which differs for each age grouping, and the gastrointestinal absorption factor. Ingestion of angler-caught fish on a mg/kg body weight per day basis varies by age resulting in differences in exposure dose by age. The age-specific groupings to determine dose is needed primarily to properly use the age sensitivity factors for cancer risk assessment (see Chapter 8) and to calculate a time-weighted average dose for chronic noncancer assessment.

##### 5.4.3.4.1 Cancer Risk Dose via Ingestion of Angler-Caught Fish

$DOSE_{fish}$  is calculated for each age group separately (i.e., 3rd trimester, 0<2 yrs, 2<9 yrs, 2<16 yrs, 16<30 yrs and 16-70 yrs), then incorporated into EQ 8.2.5 in Chapter 8 to determine cancer risk through exposure to angler-caught fish.

**A. Equation 5.4.3.4.1:**  $DOSE_{fish} = C_t \times I_{fish} \times Gf \times L \times EF \times 10^{-6}$

1.  $DOSE_{fish}$  = Dose via ingestion of angler-caught fish (mg/kg BW-day)
2.  $C_t$  = Concentration in fish muscle tissue ( $\mu\text{g/kg}$ )
3.  $I_{fish}$  = Angler-caught fish ingestion rate (g/kg BW per day)
4.  $Gf$  = Gastrointestinal absorption factor (unitless)
5.  $L$  = Fraction of fish caught at exposed site (unitless)
6.  $EF$  = Exposure frequency (days/365 days)
7.  $10^{-6}$  = Conversion factor (mg/ $\mu\text{g}$ , kg/g)

##### a: Recommended default values for Equation 5.4.3.4.1:

1.  $C_t$  = Calculated above in Equation 5.3.4.7
2.  $I_{fish}$  = See Table 5.20 (point estimates) and Table 5.21 (distributions)
3.  $Gf$  = Default set to 1
4.  $L$  = Default set to 1 for fraction of fish caught locally, although a site-specific survey is recommended for this variate
5.  $EF$  = 0.96 (350 days/365 days in a yr)

##### 5.4.3.4.2 Chronic Noncancer Dose via Ingestion of Angler-Caught Fish

Angler-caught fish consumption varies by age group. A time-weighted average intake for residential consumption over 70 years is used to determine dose for average and high-end exposure. The contribution to the angler-caught fish consumption dose is determined for each age group in EQ 5.4.3.4.2:

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**A. Equation 5.4.3.4.2:**  $DOSE_{fish} = C_t \times I_{fish} \times Gf \times L \times 10^{-6} \times ED/AT$

1.  $DOSE_{fish}$  = Dose via ingestion of angler-caught fish (mg/kg BW-day)
2.  $C_t$  = Concentration in fish muscle tissue ( $\mu\text{g/kg}$ )
3.  $I_{fish}$  = Angler-caught fish ingestion rate (g/kg BW per day)
4.  $Gf$  = Gastrointestinal absorption factor (unitless)
5.  $L$  = Fraction of fish caught at exposed site (unitless)
6.  $10^{-6}$  = Conversion factor (mg/ $\mu\text{g}$ , kg/g)
7.  $ED$  = Exposure duration for a specified age group: 2 yrs for 0<2, 14 yrs for 2<16 and 54 yrs for 16-70
8.  $AT$  = Averaging time for chronic exposure – 70 yrs

##### a: Recommended default values for Equation 5.4.3.4.2:

1.  $C_t$  = Calculated above in Equation 5.3.4.7
2.  $I_{fish}$  = See Table 5.20 (point estimates)
3.  $Gf$  = Default set to 1
4.  $L$  = Default set to 1 for fraction of fish caught locally, although a site-specific survey is recommended for this variate

##### b: Recommended nursing mother default modifications to EQ 5.4.3.4.2:

1. For the dose to mother's milk through fish consumption, use the  $I_{fish}$  for age 16-30 years in Table 5.20.
2. The  $ED$  and  $AT$  variates in EQ 5.4.3.4.2 are left out for the dose via fish consumption in the mother's milk pathway.

Following calculation of the angler-caught fish consumption dose contribution for each age group, 0<2 yr, 2<16 yr and 16-70 yr fish consumption doses are summed together to obtain the residential chronic dose:

$$(I_{fish} \text{ for age } 0<2 \text{ yrs} \times C_t \times Gf \times L \times 10^{-6} \times 2 / 70) +$$

$$(I_{fish} \text{ for age } 2<16 \text{ yrs} \times C_t \times Gf \times L \times 10^{-6} \times 14 / 70) +$$

$$(I_{fish} \text{ for age } 16-70 \text{ yrs} \times C_t \times Gf \times L \times 10^{-6} \times 54 / 70) = \text{Chronic } DOSE_{fish}$$

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**Table 5.20 Point Estimate Values for Angler-Caught Fish Consumption (g/kg-day) by Age Group**

	Third Trimester	0 <2 Years	2<9 Years	2<16 Years	16<30 Years	16-70 Years
Mean	0.38	0.18	0.36	0.36	0.38	0.36
95 <sup>th</sup> Percentile	1.22	0.58	1.16	1.16	1.22	1.16

**Table 5.21 Empirical Distribution for Angler-Caught Fish Consumption (g/kg-day)**

Mean	Percentile									
	10 <sup>th</sup>	20 <sup>th</sup>	30 <sup>th</sup>	40 <sup>th</sup>	50 <sup>th</sup>	60 <sup>th</sup>	70 <sup>th</sup>	80 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>
<b>Third trimester, 2&lt;9, 2&lt;16, 16&lt;30 and 16-70-year age groups</b>										
0.36	0.06	0.09	0.12	0.16	0.21	0.27	0.36	0.50	0.79	1.16
<b>0&lt;2-year age group</b>										
0.18	0.03	0.05	0.06	0.08	0.11	0.14	0.18	0.25	0.40	0.58

5.4.3.5 Mother's Milk

Exposure through mother's milk ingestion (Dose-Im) is a function of the average concentration of the substance in mother's milk and the amount of mother's milk ingested. The minimum pathways that the nursing mother is exposed to include inhalation, soil ingestion, and dermal, since the chemicals evaluated by the mother's milk pathway are multipathway chemicals. Other pathways may be appropriate depending on site conditions (e.g., the presence of vegetable gardens or home grown chickens). The compounds currently considered for the mother's milk pathway are:

1. Dioxins and Furans (PCDDs and PCDFs)
2. Polychlorinated biphenyls (PCBs)
3. Polycyclic Aromatic Hydrocarbons (PAHs), including creosotes
4. Lead

These compound classes represent the chemicals of greatest concern for the mother's milk pathway under the Hot Spots program, and for which data are available to estimate transfer coefficients. It is expected that additional transfer coefficients will be developed for other multipathway chemicals in the Hot Spots Program as data becomes available and is reviewed. The nursing mother in the mother's milk pathway is not herself subject to the mother's milk pathway. The summed average daily dose (mg/kg BW-day) from all pathways is calculated for the nursing mother using the equations that follow.

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5.4.3.5.1 *Cancer Risk Dose to Infant via Mother's Milk*

**A. Equation 5.4.3.5.1:**  $\text{Dose-Im} = C_m \times \text{BMI}_{bw} \times \text{EF} \times 10^{-3}$

1. Dose-Im = Dose to infant through ingestion of mother's milk (mg/kg BW per day)
2.  $C_m$  = Concentration of contaminant in mother's milk (mg/kg milk)
3.  $\text{BMI}_{bw}$  = Daily breast-milk ingestion rate (g/kg BW-day)
4. EF = Frequency of exposure (days / 365 days)
5.  $10^{-3}$  = Conversion factor (kg to g)

**a: Recommended default values for EQ 5.4.3.5.1:**

1.  $C_m$  = See EQ 5.3.4.8
2.  $\text{BMI}_{bw}$  = See Table 5.22 for point estimates. For distribution (parametric model) for Tier 3 stochastic risk assessments see Table 5.23.
3. EF = 1 (all 365 days of the first year of birth)

**b: Assumptions for EQ 5.4.3.5.1:**

1. For the MEIR, mother is exposed from birth up to 25 years of age when the infant is born. The exposed infant is then fully breastfed only during the first year of life.
2. For cancer risk assessment, exposure of breast-feeding infants to contaminants in breast milk applies only to the first year of the 0<2 yr age group for calculation of risk to this group, which then can be summed with the risk calculated for the other age groups (See Chapter 8).

5.4.3.5.2 *Chronic Noncancer Dose to Infant via Mother's Milk*

For oral noncancer hazard assessment, exposure of the infant through mother's milk ingestion occurs during the first year of life. After one year of age, the mother's milk pathway is not a factor for noncancer assessment.

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#### A. Equation 5.4.3.5.2: $\text{Dose-Im} = C_m \times \text{BMI}_{bw} \times 10^{-3}$

1. Dose-Im = Dose to infant through ingestion of mother's milk (mg/kg BW/d)
2.  $C_m$  = Concentration of contaminant in mother's milk (mg/kg milk)
3.  $\text{BMI}_{bw}$  = Daily breast-milk ingestion rate (g/kg BW-day)
4.  $10^{-3}$  = Conversion factor (kg to g)

#### a: Recommended default values for EQ 5.4.3.5.2:

1.  $C_m$  = See EQ 5.3.4.8
2.  $\text{BMI}_{bw}$  = See Table 5.22 for point estimates

**Table 5.22 Default Point Estimates for Breast Milk Intake ( $\text{BMI}_{bw}$ ) for Breastfed Infants**

Infant Group	Intake (g/kg-day)
<i>Fully breastfed over the first year (i.e., fed in accordance with AAP recommendations)</i>	
Mean	101
95 <sup>th</sup> percentile	139

**Table 5.23 Recommended Distribution of Breast Milk Intake Rates Among Breastfed Infants for Stochastic Assessment\* (Averaged Over an Individual's First Year of Life)**

	Mean (SD)	Percentile							
		5	10	25	50	75	90	95	99
Intake (g/kg-day)	101 (23)	62	71	85	101	116	130	139	154

\* For stochastic analysis, the mother's milk data are normally distributed.

### 5.5 References

ARB 2007. *Emission Inventory Criteria and Guidelines Regulations (Title 17, California Code of Regulations, Sections 93300-93300.5)*, and the *Emission Inventory Criteria and Guidelines Report* (EICG Report).

ARB, 2012. Consolidated Table of OEHHA / ARB Approved Risk Assessment Health Values. Air Resources Board, California Environmental Protection Agency. Online at: <http://www.arb.ca.gov/toxics/healthval/healthval.htm>

Hausch C, Leo AJ, Medchem Project Issue No. 26, Claremont CA: Pomona College (1985)

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Lyman WJ, Reehl WF, Rosenblatt DH et al., 1990. Handbook of Chemical Property Estimation Methods. American Chemical Society, Wash. DC

OEHHA, 2000. *Air Toxics Hot Spots Program Risk Assessment Guidelines: Part IV Technical Support Document for Exposure Assessment and Stochastic Analysis*. September 2000.

OEHHA, 2012a. *Air Toxics Hot Spots Program Risk Assessment Guidelines; Technical Support Document for Exposure Assessment and Stochastic Analysis*. Available online at <http://www.oehha.ca.gov>

OEHHA, 2012b. Hot Spots Unit Risk and Cancer Potency Values. Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. Online at: [http://oehha.ca.gov/air/hot\\_spots/pdf/CPFs042909.pdf](http://oehha.ca.gov/air/hot_spots/pdf/CPFs042909.pdf)

Staples CA, Peterson DR, Parkerton TF, Adams WJ. 1997. The environmental fate of phthalate esters: A literature review. Chemosphere 35(4):667-749.

U.S. EPA. (2009). *Metabolically derived human ventilation rates: A revised approach based upon oxygen consumption rates*. U.S. Environmental Protection Agency, National Center for Environmental Assessment, Washington, DC; EPA/600/R-06/129F



## 6 - Dose-Response Assessment for Noncarcinogenic Endpoints

### 6.1 Derivation of Toxicity Criteria for Noncancer Health Effects

Dose-response assessment describes the quantitative relationship between the amount of exposure to a substance (the dose) and the incidence or occurrence of an adverse health impact (the response). Dose-response information for noncancer health effects is used to determine Reference Exposure Levels (RELs). Inhalation RELs are air concentrations or doses at or below which adverse noncancer health effects are not expected even in sensitive members of the general population under specified exposure scenarios. The acute RELs are for infrequent 1 hour exposures that occur no more than once every two weeks in a given year, although this time frame of exposure does not necessarily apply to chemicals that can bioaccumulate (e.g., dioxins and furans, PCBs, and various metals). The chronic RELs are for 24 hour per day exposures for at least a significant fraction of a lifetime, defined as about 8 years ( $\geq 12$  percent of a 70-year lifespan). The 8-hour RELs are for repeated 8-hour exposures for a significant fraction of a lifetime such as the exposures that offsite workers might typically receive. Eight-hour RELs are only available for 10 chemicals at present, but OEHHHA will develop 8-hour RELs as we re-evaluate our existing RELs to ensure they are protective of children's health, and as we develop RELs for new chemicals. There are oral chronic RELs for some chemicals in the Hot Spots program that are semivolatile or nonvolatile and thus subject to deposition and oral ingestion or dermal exposure. The methodology for developing RELs is similar to that used by U.S. EPA in developing the inhalation Reference Concentrations (RfCs) and oral Reference Doses (RfDs).

Review and revision of RELs to take into account new information and sensitive subpopulations including infants and children is an ongoing process. All draft RELs for individual chemicals revised under the current noncancer methodology will undergo public comment and peer review, as mandated by the Hot Spots Act.

The first step in determining an acute, 8-hour, or chronic REL is to determine a point of departure. The point of departure is preferably determined by the benchmark concentration procedure applied to human or animal studies, but if this method of calculation cannot be used with a particular data set, a no observed adverse effect level (NOAEL) or lowest observed adverse effect level (LOAEL) may be used as the point of departure. The benchmark concentration method (also referred to as the benchmark dose method for oral exposures) is a preferred method to estimate a point of departure because it takes all of the available dose-response data into account to statistically estimate, typically, a 5 percent response rate.

Dosimetric or toxicokinetic adjustments are often made to the point of departure to adjust for differences in dosimetry or kinetics across species or among humans. Time adjustments are generally applied to adjust experimental exposure to the exposure of

interest for the REL (e.g., 1 hour for acute, continuous for chronic). A modified Haber's equation is used where needed to adjust studies with different exposure times to the one-hour period needed for acute RELs. A simple Haber's law ( $C \times T$ ) adjustment for exposure period duration is used for most 8-hour and chronic RELs.

The time and dosimetry adjusted point of departure is divided by uncertainty factors that reflect the limitations in the current toxicology of the chemical. For example, an interspecies uncertainty factor is applied to account for the differences between humans and animals when an animal study is used. An intraspecies uncertainty factor is usually included to account for differences in susceptibility among the human population. In addition, where benchmark dose modeling is not suitable and a NOAEL is not available, a LOAEL to NOAEL uncertainty factor may be applied when the LOAEL serves as the point of departure. If a chronic study is not available to serve as a basis for a chronic REL, then a subchronic uncertainty factor (for chronic and 8-hour RELs only) may also be applied. Finally, if there are data deficiencies, for example, lack of a developmental toxicity study for a chemical, then a database deficiency factor may be applied. The individual uncertainty factors, which range from 2 to 10 depending on the limitations in the data, are multiplied together for a total uncertainty factor. The point of departure is then divided by the total UF to obtain the REL.

The most sensitive toxicological end point is selected as the basis for the REL when there are multiple adverse health effects. The selection of the most sensitive endpoint as the basis for a REL helps ensure that the REL is protective for all health effects. The use of uncertainty factors helps ensure that the REL is protective for nearly all individuals, including sensitive subpopulations, within the limitations of current scientific knowledge. For detailed information on the methodology and derivations for RELs, including guidance on selection of uncertainty factors, see the Air Toxics Hot Spots Risk Assessment Guidelines Technical Support Document for the Derivation of Noncancer Reference Exposure Levels (OEHHHA, 2008).

It should be emphasized that exceeding the acute or chronic REL does not necessarily indicate that an adverse health impact will occur. The REL is not the threshold where population health effects would first be seen. However, levels of exposure above the REL have an increasing but undefined probability of resulting in an adverse health impact, particularly in sensitive individuals (e.g., depending on the toxicant, the very young, the elderly, pregnant women, and those with acute or chronic illnesses). The significance of exceeding the REL is dependent on the seriousness of the health endpoint, the strength and interpretation of the health studies, the magnitude of combined safety factors, and other considerations. In addition, there is a possibility that a REL may not be protective of certain small, unusually sensitive human subpopulations. Such subpopulations can be difficult to identify and study because of their small numbers, lack of knowledge about toxic mechanisms, and other factors. It may be useful to consult OEHHHA staff when a REL is exceeded (hazard quotient or hazard index is greater than 1.0). Chapter 8 discusses the methods used for determining potential noncancer health impacts and Appendix I presents example calculations used to determine a hazard quotient (HQ) and hazard indices (HI).



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Tables 6.1 through 6.3 list the currently adopted acute, 8-hour, and chronic inhalation RELs. Some substances that pose a long-term inhalation hazard may also present a chronic hazard via non-inhalation (oral, dermal) routes of exposure. The oral RELs for these substances are presented in Table 6.3. Appendix L provides a consolidated listing of all the acute, 8-hour, and chronic RELs with the respective target organs that are approved for use by OEHHA and ARB for the Hot Spots Program. Periodically, new or updated RELs are adopted by OEHHA and these guidelines will be updated to reflect those changes. See OEHHA's web site at [www.oehha.ca.gov](http://www.oehha.ca.gov) (look under "Air", then select "Hot Spots Guidelines") to determine if any new or updated RELs have been adopted since the last guideline update.

### 6.2 Acute Reference Exposure Levels

OEHHA developed acute RELs for assessing potential noncancer health impacts for short-term, one-hour peak exposures to facility emissions (OEHHA, 2008; <http://www.oehha.ca.gov/air/allrels.html>). By definition, an acute REL is an exposure that is not likely to cause adverse health effects in a human population, including sensitive subgroups, exposed to that concentration (in units of micrograms per cubic meter or  $\mu\text{g}/\text{m}^3$ ) for the specified exposure duration on an intermittent basis.

The target organ systems and the acute RELs for each substance are presented in Table 6.1. Many acute RELs are based on mild adverse effects, such as mild irritation of the eyes, nose, or throat, or may result in other mild adverse physiological changes. For most individuals, it is expected that the mild irritation and other adverse physiological changes will not persist after exposure ceases. For RELs that have been recently developed or revised, the notation "sensory irritation" has been added in parenthesis in Table 6.1 for those chemicals that have an acute REL based on sensory irritation of the respiratory system (i.e., nose, throat) and/or eyes.

Other acute RELs are based on reproductive/developmental endpoints, such as teratogenicity or fetotoxicity, which are considered severe adverse effects. The inhalation pathway is the only pathway to assess for acute exposure. Other non-inhalation pathways of exposure are evaluated for worker and residential scenarios where the exposures are chronic or repeated daily in nature. The oral RELs are used to evaluate the non-inhalation pathways of exposure. Noninhalation (oral) RELs are discussed in Section 6.5. Chapter 8 discusses the methods used for determining noncancer acute health impacts. Appendix I presents an example calculation used to determine an HQ and HI.

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**Table 6.1 Acute Inhalation Reference Exposure Levels (RELs) and Acute Hazard Index Target Organ System(s)**

Substance	Chemical Abstract Service Number (CAS)	Acute Inhalation REL ( $\mu\text{g}/\text{m}^3$ )	Acute Hazard Index Target Organ System(s)
Acetaldehyde	75-07-0	$4.7 \times 10^{-12}$	Eyes; Respiratory System (sensory irritation)
Acrolein	107-02-8	$2.5 \times 10^{-10}$	Eyes; Respiratory System (sensory irritation)
Acrylic Acid	79-10-7	$6.0 \times 10^{-13}$	Eyes; Respiratory System
Ammonia	7664-41-7	$3.2 \times 10^{-13}$	Eyes; Respiratory System
Arsenic and Inorganic Arsenic Compounds (including arsine)	7440-38-2	$2.0 \times 10^{-1}$	Development; Cardiovascular System; Nervous System
Benzene	71-43-2	$2.7 \times 10^{-11}$	Reproductive/Developmental; Immune System; Hematologic System
Benzyl Chloride	100-44-7	$2.4 \times 10^{-12}$	Eyes; Respiratory System
1,3-Butadiene	106-99-0	$6.6 \times 10^{-12}$	Development
Caprolactam	105-60-2	$5.0 \times 10^{-11}$	Eyes (sensory irritation)
Carbon Disulfide	75-15-0	$6.2 \times 10^{-13}$	Nervous System; Reproductive/Developmental
Carbon Monoxide <sup>a</sup>	630-08-0	$2.3 \times 10^{-14}$	Cardiovascular System
Carbon Tetrachloride	56-23-5	$1.9 \times 10^{-13}$	Alimentary System (Liver); Nervous System; Reproductive/Developmental
Chlorine	7782-50-5	$2.1 \times 10^{-12}$	Eyes; Respiratory System
Chloroform	67-66-3	$1.5 \times 10^{-12}$	Nervous System; Respiratory System; Reproductive/Developmental
Chloropicrin	76-06-2	$2.9 \times 10^{-11}$	Eyes; Respiratory System
Copper and Compounds	7440-50-8	$1.0 \times 10^{-12}$	Respiratory System
1,4-Dioxane	123-91-1	$3.0 \times 10^{-13}$	Eyes; Respiratory System
Epichlorohydrin	106-89-8	$1.3 \times 10^{-13}$	Eyes; Respiratory System
Ethylene Glycol Monobutyl Ether	111-76-2	$1.4 \times 10^{-14}$	Eyes; Respiratory System
Ethylene Glycol Monoethyl Ether	110-80-5	$3.7 \times 10^{-12}$	Reproductive/Developmental
Ethylene Glycol Monoethyl Ether Acetate	111-15-9	$1.4 \times 10^{-12}$	Nervous System; Reproductive/Developmental
Ethylene Glycol Monomethyl Ether	109-86-4	$9.3 \times 10^{-11}$	Reproductive/Developmental
Formaldehyde	50-00-0	$5.5 \times 10^{-11}$	Eyes (sensory irritation)
Hydrogen Chloride	7647-01-0	$2.1 \times 10^{-13}$	Eyes; Respiratory System
Hydrogen Cyanide	74-90-8	$3.4 \times 10^{-12}$	Nervous System
Hydrogen Fluoride	7664-39-3	$2.4 \times 10^{-12}$	Eyes; Respiratory System
Hydrogen Selenide	7783-07-5	$5.0 \times 10^{-10}$	Eyes; Respiratory System
Hydrogen Sulfide <sup>a</sup>	7783-06-4	$4.2 \times 10^{-11}$	Nervous System
Isopropanol	67-63-0	$3.2 \times 10^{-13}$	Eyes; Respiratory System
Mercury and Inorganic Mercury Compounds	7439-97-6	$6.0 \times 10^{-1}$	Nervous System; Development
Methanol	67-56-1	$2.8 \times 10^{-14}$	Nervous System
Methyl Bromide	74-83-9	$3.9 \times 10^{-13}$	Nervous System; Respiratory System; Reproductive/Developmental

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Substance	Chemical Abstract Service Number (CAS)	Acute Inhalation REL ( $\mu\text{g}/\text{m}^3$ )	Acute Hazard Index Target Organ System(s)
Methyl Chloroform	71-55-6	$6.8 \times 10^{-4}$	Nervous System
Methyl Ethyl Ketone	78-93-3	$1.3 \times 10^{-4}$	Eyes; Respiratory System
Methylene Chloride	75-09-2	$1.4 \times 10^{-4}$	Nervous System; Cardiovascular System
Nickel and Nickel Compounds	7440-02-0	$2.0 \times 10^{-1}$	Immune System
Nitric Acid	7697-37-2	$8.6 \times 10^{-1}$	Respiratory System
Nitrogen Dioxide <sup>a</sup>	10102-44-0	$4.7 \times 10^{-2}$	Respiratory System
Ozone <sup>a</sup>	10028-15-6	$1.8 \times 10^{-2}$	Eyes; Respiratory System
Perchloroethylene (Tetrachloroethylene)	127-18-4	$2.0 \times 10^{-4}$	Eyes; Nervous System; Respiratory System
Phenol	108-95-2	$5.8 \times 10^{-3}$	Eyes; Respiratory System
Phosgene	75-44-5	$4.0 \times 10^{-10}$	Respiratory System
Propylene Oxide	75-56-9	$3.1 \times 10^{-3}$	Eyes; Respiratory System; Reproductive/Developmental
Sodium Hydroxide	1310-73-2	$8.0 \times 10^{-10}$	Eyes; Skin; Respiratory System
Styrene	100-42-5	$2.1 \times 10^{-4}$	Eyes; Respiratory System; Reproductive/Developmental
Sulfates <sup>a</sup>	N/A	$1.2 \times 10^{-12}$	Respiratory System
Sulfur Dioxide <sup>a</sup>	7446-09-5	$6.6 \times 10^{-2}$	Respiratory System
Sulfuric Acid and Oleum	7664-93-9 8014-95-7	$1.2 \times 10^{-12}$	Respiratory System
Tetrachloroethylene (Perchloroethylene)	127-18-4	$2.0 \times 10^{-4}$	Eyes; Nervous System; Respiratory System
Toluene	108-88-3	$3.7 \times 10^{-4}$	Nervous System; Respiratory System; Eyes; Reproductive/Developmental
Triethylamine	121-44-8	$2.8 \times 10^{-3}$	Nervous System; Eyes
Vanadium Pentoxide	1314-62-1	$3.0 \times 10^{-1}$	Eyes; Respiratory System
Vinyl Chloride	75-01-4	$1.8 \times 10^{-5}$	Nervous System; Eyes; Respiratory System
Xylenes (m,o,p-isomers)	1330-20-7	$2.2 \times 10^{-4}$	Eyes; Respiratory System; Nervous System

<sup>a</sup> California Ambient Air Quality Standard

### 6.3 8-hour Reference Exposure Levels

OEHHA has developed 8-hour RELs for assessing potential noncancer health impacts for exposures to the general public that occur on a recurrent basis, but only during a portion of each day (OEHHA, 2008; <http://www.oehha.ca.gov/air/allrels.html>). Eight-hour RELs are compared to air concentrations that represent an average (daily) 8-hour exposure. They were designed to address off-site worker exposure at the MEIV, but may also be used at the Districts' discretion to characterize 8-hour residential noncancer exposures, particularly for non-continuous facility operations where exposure is based on air concentrations during facility operation (i.e., the zero emission hours are not included) rather than averaged over 24-hours/day, 7 days/week as assessed for chronic exposure. The 8-hour RELs can also be used to assess exposure of students and teachers while at school (OEHHA, 2008). These RELs were developed because of concerns that applying the chronic REL in some scenarios was

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overly conservative. By definition, an 8-hour REL is an exposure that is not likely to cause adverse health effects in a human population, including sensitive subgroups, exposed to that concentration (in units of micrograms per cubic meter or  $\mu\text{g}/\text{m}^3$ ) for an 8-hour exposure duration on a regular (including daily) basis.

The RELs, target organ systems, and the averaging time for substances that can present a potential hazard from inhalation for 8 hours on a daily basis are presented in Table 6.2. Chapter 8 discusses the methods used for determining noncancer 8-hour health impacts. Appendix I presents an example calculation used to determine an HQ and HI.

Any substances in Table 6.2 with Development or Reproductive System as a target organ system are represented in HARP and in the Appendix L REL tables under the single endpoint "Reproductive/Development".

**Table 6.2 Eight-Hour Inhalation Reference Exposure Levels (RELs) and 8-Hour Hazard Index Target Organ System(s)**

Substance	Chemical Abstract Service Number (CAS)	Chronic Inhalation REL ( $\mu\text{g}/\text{m}^3$ )	Chronic Inhalation Hazard Index Target Organ System(s)
Acetaldehyde	75-07-0	$3.0 \times 10^{-2}$	Respiratory System
Acrolein	107-02-8	$7.0 \times 10^{-1}$	Respiratory System
Arsenic & Inorganic Arsenic Compounds	7440-38-2	$1.5 \times 10^{-2}$	Cardiovascular System; Development; Nervous System; Respiratory System; Skin
Benzene	71-43-2	$3.0 \times 10^{-10}$	Hematologic System
1,3-Butadiene	106-99-0	$9.0 \times 10^{-10}$	Reproductive System
Caprolactam	105-60-2	$7.0 \times 10^{-10}$	Respiratory System
Formaldehyde	50-00-0	$9.0 \times 10^{-10}$	Respiratory System
Manganese & Manganese Compounds	7439-96-5	$1.7 \times 10^{-1}$	Nervous System
Mercury & Inorganic Mercury Compounds	7439-97-6	$6.0 \times 10^{-2}$	Nervous System; Development; Kidney
Nickel & Nickel Compounds	7440-02-0	$6.0 \times 10^{-2}$	Respiratory System; Immune System

### 6.4 Chronic Reference Exposure Levels

OEHHA has developed chronic RELs for assessing noncancer health impacts from long-term exposure. (OEHHA, 2008; see also <http://www.oehha.ca.gov/air/allrels.html>) A chronic REL is a concentration level (expressed in units of micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) for inhalation exposure and in a dose expressed in units of milligrams per kilogram-day (mg/kg-day) for oral exposures) at or below which no adverse health effects are anticipated following long-term exposure. Long-term exposure for these purposes has been defined by U.S. EPA as at least 12% of a lifetime, or about eight years for humans. Table 6.3 lists the chronic noncancer RELs that should be used in

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the assessment of chronic health effects from inhalation exposure. Appendix L provides a consolidated listing of all the acute, 8-hour and chronic RELs and target organs that are approved for use by OEHHA and ARB for the Hot Spots Program. Periodically, new or updated RELs are adopted by OEHHA. See OEHHA's web site <http://www.oehha.ca.gov/air/allrels.html> to determine if any new or updated RELs have been adopted since the last guideline update.

The organ system(s) associated with each chronic REL are also presented in Table 6.3. Any substances in Table 6.3 with Development or Reproductive System as a target organ system are represented in HARP and in the Appendix L REL tables under the single endpoint "Reproductive/Development". Chapter 8 discusses the methods used for determining potential noncancer health impacts and Appendix I presents example calculations used to determine a HQ and HI.

**Table 6.3 Chronic Inhalation Reference Exposure Levels (RELs) and Chronic Hazard Index Target Organ System(s)**

Substance	Chemical Abstract Service Number (CAS)	Chronic Inhalation REL ( $\mu\text{g}/\text{m}^3$ )	Chronic Inhalation Hazard Index Target Organ System(s)
Acetaldehyde <sup>a</sup>	75-07-0	$1.4 \times 10^{-12}$	Respiratory System
Acrolein	107-02-8	$3.5 \times 10^{-1}$	Respiratory System
Acrylonitrile	107-13-1	$5.0 \times 10^{-10}$	Respiratory System
Ammonia	7664-41-7	$2.0 \times 10^{-12}$	Respiratory System
Arsenic & Inorganic Arsenic Compounds	7440-38-2	$1.5 \times 10^{-2}$	Cardiovascular System; Development; Nervous System; Respiratory System; Skin
Benzene	71-43-2	$3.0 \times 10^{-10}$	Hematologic System
Beryllium and Beryllium Compounds	7440-41-7	$7.0 \times 10^{-3}$	Immune System; Respiratory System
1,3-Butadiene	106-99-0	$2.0 \times 10^{-10}$	Reproductive System
Cadmium and Cadmium Compounds	7440-43-9	$2.0 \times 10^{-12}$	Kidney; Respiratory System
Caprolactam	105-60-2	$2.2 \times 10^{-10}$	Respiratory System
Carbon Disulfide	75-15-0	$8.0 \times 10^{-12}$	Nervous System; Reproductive System
Carbon Tetrachloride	56-23-5	$4.0 \times 10^{-1}$	Alimentary System (Liver); Development; Nervous System
Chlorine	7782-50-5	$2.0 \times 10^{-1}$	Respiratory System
Chlorine Dioxide	10049-04-4	$6.0 \times 10^{-1}$	Respiratory System
<b>Chlorinated Dibenzo-p-dioxins<sup>b</sup></b>			
2,3,7,8-Tetrachlorodibenzo-p-dioxin <sup>b</sup>	1746-01-6	$4.0 \times 10^{-5}$	Alimentary System (Liver); Development; Endocrine System; Hematologic System; Reproductive System; Respiratory System
1,2,3,7,8-Pentachlorodibenzo-p-dioxin <sup>b</sup>	40321-76-4	$4.0 \times 10^{-5}$	
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin <sup>b</sup>	39227-28-6	$4.0 \times 10^{-4}$	
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin <sup>b</sup>	57653-85-7	$4.0 \times 10^{-4}$	
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin <sup>b</sup>	19408-74-3	$4.0 \times 10^{-4}$	
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin <sup>b</sup>	35822-46-9	$4.0 \times 10^{-3}$	
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin <sup>b</sup>	3268-87-9	$1.3 \times 10^{-1}$	

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**Table 6.3 Chronic Inhalation Reference Exposure Levels (RELs) and Chronic Hazard Index Target Organ System(s)**

Substance	Chemical Abstract Service Number (CAS)	Chronic Inhalation REL ( $\mu\text{g}/\text{m}^3$ )	Chronic Inhalation Hazard Index Target Organ System(s)
<b>Chlorinated Dibenzofurans<sup>b</sup></b>			
2,3,7,8-Tetrachlorodibenzofuran <sup>b</sup>	5120-73-19	$4.0 \times 10^{-4}$	Alimentary System (Liver); Development; Endocrine System; Hematologic System; Reproductive System; Respiratory System
1,2,3,7,8-Pentachlorodibenzofuran <sup>b</sup>	57117-41-6	$1.3 \times 10^{-3}$	
2,3,4,7,8-Pentachlorodibenzofuran <sup>b</sup>	57117-31-4	$1.3 \times 10^{-4}$	
1,2,3,4,7,8-Hexachlorodibenzofuran <sup>b</sup>	70648-26-9	$4.0 \times 10^{-4}$	
1,2,3,6,7,8-Hexachlorodibenzofuran <sup>b</sup>	57117-44-9	$4.0 \times 10^{-4}$	
1,2,3,7,8,9-Hexachlorodibenzofuran <sup>b</sup>	72918-21-9	$4.0 \times 10^{-4}$	
2,3,4,6,7,8-Hexachlorodibenzofuran <sup>b</sup>	60851-34-5	$4.0 \times 10^{-4}$	
1,2,3,4,6,7,8-Heptachlorodibenzofuran <sup>b</sup>	67562-39-4	$4.0 \times 10^{-3}$	
1,2,3,4,7,8,9-Heptachlorodibenzofuran <sup>b</sup>	55673-89-7	$4.0 \times 10^{-3}$	Alimentary System (Liver); Kidney; Reproductive System
1,2,3,4,6,7,8,9-Octachlorodibenzofuran <sup>b</sup>	39001-02-0	$1.3 \times 10^{-1}$	
Chlorobenzene	108-90-7	$1.0 \times 10^{-3}$	Alimentary System (Liver); Kidney; Reproductive System
Chloroform	67-66-3	$3.0 \times 10^{-2}$	Alimentary System (Liver); Development; Kidney
Chloropicrin	76-06-2	$4.0 \times 10^{-1}$	Respiratory System
Chromium VI & Soluble Chromium VI Compounds (except chromic trioxide)	18540-29-9	$2.0 \times 10^{-1}$	Respiratory System
Chromic Trioxide (as chromic acid mist)	1333-82-0	$2.0 \times 10^{-3}$	Respiratory System
Cresol Mixtures	1319-77-3	$6.0 \times 10^{-2}$	Nervous System
1,4-Dichlorobenzene	106-46-7	$8.0 \times 10^{-2}$	Alimentary System (Liver); Kidney; Nervous System; Respiratory System
1,1-Dichloroethylene (Vinylidene Chloride)	75-35-4	$7.0 \times 10^{-1}$	Alimentary System (Liver)
Diesel Exhaust <sup>a</sup>	N/A	$5.0 \times 10^{-10}$	Respiratory System
Diethanolamine	111-42-2	$3.0 \times 10^{-10}$	Hematologic System; Respiratory System
N,N-Dimethylformamide	68-12-2	$8.0 \times 10^{-1}$	Alimentary System (Liver); Respiratory System
1,4-Dioxane	123-91-1	$3.0 \times 10^{-3}$	Alimentary System (Liver); Cardiovascular System; Kidney
Epichlorohydrin	106-89-8	$3.0 \times 10^{-10}$	Eyes; Respiratory System
1,2-Epoxybutane	106-88-7	$2.0 \times 10^{-1}$	Cardiovascular System; Respiratory System
Ethylbenzene	100-41-4	$2.0 \times 10^{-3}$	Alimentary System (Liver); Kidney; Development; Endocrine System
Ethyl Chloride	75-00-3	$3.0 \times 10^{-4}$	Alimentary System (Liver); Development
Ethylene Dibromide	106-93-4	$8.0 \times 10^{-1}$	Reproductive System
Ethylene Dichloride	107-06-2	$4.0 \times 10^{-2}$	Alimentary System (Liver)
Ethylene Glycol	107-21-1	$4.0 \times 10^{-2}$	Development; Kidney; Respiratory System
Ethylene Glycol Monoethyl Ether	110-80-5	$7.0 \times 10^{-1}$	Hematologic System; Reproductive System
Ethylene Glycol Monoethyl Ether Acetate	111-15-9	$3.0 \times 10^{-2}$	Development

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**Table 6.3 Chronic Inhalation Reference Exposure Levels (RELs) and Chronic Hazard Index Target Organ System(s)**

Substance	Chemical Abstract Service Number (CAS)	Chronic Inhalation REL (µg/m <sup>3</sup> )	Chronic Inhalation Hazard Index Target Organ System(s)
Ethylene Glycol Monomethyl Ether	109-86-4	6.0 x 10 <sup>-11</sup>	Reproductive System
Ethylene Glycol Monomethyl Ether Acetate	110-49-6	9.0 x 10 <sup>-11</sup>	Reproductive System
Ethylene Oxide	75-21-8	3.0 x 10 <sup>-11</sup>	Nervous System
Fluorides (except hydrogen fluoride)	N/A	1.3 x 10 <sup>-11</sup>	Bone and Teeth; Respiratory System
Formaldehyde	50-00-0	9.0 x 10 <sup>-10</sup>	Respiratory System
Glutaraldehyde	111-30-8	8.0 x 10 <sup>-2</sup>	Respiratory System
Hexane (n-)	110-54-3	7.0 x 10 <sup>-3</sup>	Nervous System
Hydrazine	302-01-2	2.0 x 10 <sup>-1</sup>	Alimentary System (Liver); Endocrine System
Hydrogen Chloride	7647-01-0	9.0 x 10 <sup>-10</sup>	Respiratory System
Hydrogen Cyanide	74-90-8	9.0 x 10 <sup>-10</sup>	Cardiovascular System; Endocrine System; Nervous System
Hydrogen Fluoride	7664-39-3	1.4 x 10 <sup>-11</sup>	Bone and Teeth; Respiratory System
Hydrogen Sulfide	7783-06-4	1.0 x 10 <sup>-11</sup>	Respiratory System
Isophorone	78-59-1	2.0 x 10 <sup>-3</sup>	Alimentary System (Liver); Development
Isopropanol	67-63-0	7.0 x 10 <sup>-3</sup>	Development; Kidney
Maleic Anhydride	108-31-6	7.0 x 10 <sup>-1</sup>	Respiratory System
Manganese & Manganese Compounds	7439-96-5	9.0 x 10 <sup>-2</sup>	Nervous System
Mercury & Inorganic Mercury Compounds	7439-97-6	3.0 x 10 <sup>-2</sup>	Nervous System; Development; Kidney
Methanol	67-56-1	4.0 x 10 <sup>-3</sup>	Development
Methyl Bromide	74-83-9	5.0 x 10 <sup>-10</sup>	Development; Nervous System; Respiratory System
Methyl Chloroform	71-55-6	1.0 x 10 <sup>-3</sup>	Nervous System
Methyl Isocyanate	624-83-9	1.0 x 10 <sup>-10</sup>	Reproductive System; Respiratory System
Methyl tertiary-Butyl Ether	1634-04-4	8.0 x 10 <sup>-3</sup>	Alimentary System (Liver); Eyes; Kidney
Methylene Chloride	75-09-2	4.0 x 10 <sup>-2</sup>	Cardiovascular System; Nervous System
4,4'-Methylene Dianiline (& its dichloride)	101-77-9	2.0 x 10 <sup>-11</sup>	Alimentary System (Liver); Eyes
Methylene Diphenyl Isocyanate	101-68-8	7.0 x 10 <sup>-11</sup>	Respiratory System
Naphthalene	91-20-3	9.0 x 10 <sup>-10</sup>	Respiratory System
Nickel & Nickel Compounds (except nickel oxide)	7440-02-0	1.4 x 10 <sup>-2</sup>	Hematologic System; Respiratory System
Nickel Oxide	1313-99-1	2.0 x 10 <sup>-2</sup>	Respiratory System
Perchloroethylene (Tetrachloroethylene) <sup>a</sup>	127-18-4	3.5 x 10 <sup>-11</sup>	Alimentary System (Liver); Kidney
Phenol	108-95-2	2.0 x 10 <sup>-2</sup>	Alimentary System (Liver); Cardiovascular System; Kidney; Nervous System
Phosphine	7803-51-2	8.0 x 10 <sup>-1</sup>	Alimentary System (Liver); Hematologic System; Kidney; Nervous System; Respiratory System

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**Table 6.3 Chronic Inhalation Reference Exposure Levels (RELs) and Chronic Hazard Index Target Organ System(s)**

Substance	Chemical Abstract Service Number (CAS)	Chronic Inhalation REL (µg/m <sup>3</sup> )	Chronic Inhalation Hazard Index Target Organ System(s)
Phosphoric Acid	7664-38-2	7.0 x 10 <sup>-10</sup>	Respiratory System
Phthalic Anhydride	85-44-9	2.0 x 10 <sup>-11</sup>	Respiratory System
<b>Polychlorinated biphenyls (PCBs)<sup>b</sup></b>			
3,3',4,4'-Tetrachlorobiphenyl (77) <sup>b</sup>	35298-13-3	4.0 x 10 <sup>-1</sup>	Alimentary System (Liver); Developmental; Endocrine System; Hematologic System; Reproductive System; Respiratory System
3,4,4',5'-Tetrachlorobiphenyl (81) <sup>b</sup>	70362-50-4	1.3 x 10 <sup>-1</sup>	
2,3,3',4,4'-Pentachlorobiphenyl (105) <sup>b</sup>	32598-14-4	1.3 x 10 <sup>-10</sup>	
2,3,4,4',5'-Pentachlorobiphenyl (114) <sup>b</sup>	74472-37-0	1.3 x 10 <sup>-10</sup>	
2,3,4,4',5'-Pentachlorobiphenyl (118) <sup>b</sup>	31508-00-6	1.3 x 10 <sup>-10</sup>	
2',3,4,4',5'-Pentachlorobiphenyl (123) <sup>b</sup>	65510-44-3	1.3 x 10 <sup>-10</sup>	
3,3',4,4',5'-Pentachlorobiphenyl (126) <sup>b</sup>	57465-28-8	4.0 x 10 <sup>-4</sup>	
2,3,3',4,4',5'-Hexachlorobiphenyl (156) <sup>b</sup>	38380-08-4	1.3 x 10 <sup>-10</sup>	
2,3,3',4,4',5'-Hexachlorobiphenyl (157) <sup>b</sup>	69782-90-7	1.3 x 10 <sup>-10</sup>	
2,3',4,4',5,5'-Hexachlorobiphenyl (167) <sup>b</sup>	52663-72-6	1.3 x 10 <sup>-10</sup>	
3,3',4,4',5,5'-Hexachlorobiphenyl (169) <sup>b</sup>	32774-16-6	1.3 x 10 <sup>-3</sup>	
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189) <sup>b</sup>	39635-31-9	1.3 x 10 <sup>-10</sup>	
Propylene	115-07-1	3.0 x 10 <sup>-3</sup>	Respiratory System
Propylene Glycol Monomethyl Ether	107-98-2	7.0 x 10 <sup>-3</sup>	Alimentary System (Liver)
Propylene Oxide	75-56-9	3.0 x 10 <sup>-11</sup>	Respiratory System
Selenium and Selenium compounds (other than Hydrogen Selenide)	7782-49-2	2.0 x 10 <sup>-11</sup>	Alimentary System (Liver); Cardiovascular System; Nervous System
Silica (crystalline, respirable)	N/A	3.0 x 10 <sup>-10</sup>	Respiratory System
Styrene	100-42-5	9.0 x 10 <sup>-2</sup>	Nervous System
Sulfuric Acid	7664-93-9	1.0 x 10 <sup>-10</sup>	Respiratory System
Toluene	108-88-3	3.0 x 10 <sup>-2</sup>	Development; Nervous System; Respiratory System
2,4-Toluene Diisocyanate	584-84-9	7.0 x 10 <sup>-2</sup>	Respiratory System
2,6-Toluene Diisocyanate	91-08-7	7.0 x 10 <sup>-2</sup>	Respiratory System
Trichloroethylene <sup>a</sup>	79-01-6	6.0 x 10 <sup>-2</sup>	Eyes; Nervous System
Triethylamine	121-44-8	2.0 x 10 <sup>-2</sup>	Eyes
Vinyl Acetate	108-05-4	2.0 x 10 <sup>-2</sup>	Respiratory System
Xylenes (m, o, p-isomers)	1330-20-7	7.0 x 10 <sup>-2</sup>	Nervous System; Respiratory System; Eyes

<sup>a</sup> These peer-reviewed values were developed under the Toxic Air Contaminant (TAC) Program mandated by AB1807 (California Health and Safety Code Sec. 39650 *et seq.*).

<sup>b</sup> The OEHHA has adopted the World Health Organization Toxicity Equivalency Factor (TEF) scheme for evaluating the cancer risk and noncancer hazard due to exposure to samples containing mixtures of polychlorinated dibenzo-*p*-dioxins (PCDD) (also referred to as chlorinated dioxins and dibenzofurans), polychlorinated dibenzofurans (PCDF) and polychlorinated biphenyls (PCBs). The TEF values are revised from time to time to reflect new data and increased scientific knowledge. Currently OEHHA recommends use of the 2005 revision to the WHO TEF values (WHO<sub>05</sub>-TEF). See Appendix E for more information about the scheme and for the methodology for calculating 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) equivalents for PCDD and PCDFs. For

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convenience, OEHHA has calculated chronic REL values for speciated PCDDs, PCDFs and PCBs based on the WHO<sub>05</sub> TEF values and the chronic REL for 2,3,7,8-TCDD using the procedure discussed in Appendix E. The chronic REL values can be used to calculate a hazard index when the mixtures are speciated from individual congener ground level concentrations. In those cases where speciation of dioxins and furans has not been performed, then 2,3,7,8-TCDD serves as the surrogate for dioxin and furan emissions.

N/A Not Applicable

### 6.5 Chronic Oral (Noninhalation) Reference Exposure Levels

As specified throughout the guidelines, estimates of long-term exposure resulting from facility air emissions of specific compounds must be analyzed for both inhalation and noninhalation (multipathway) pathways of exposure for humans. Facilities often emit substances under high temperature and pressure in the presence of particulate matter. While some of these substances are expected to remain in the vapor phase, other substances such as metals and semi-volatile organics can be either emitted as particles, form particles after emission from the facility, or adhere to existing particles. Some substances will partition between vapor and particulate phases. Substances in the particulate phase can be removed from the atmosphere by settling and, thus, potentially present a significant hazard via noninhalation pathways.

Particulate-associated chemicals can be deposited directly onto soil, onto the leaves or fruits of crops, or onto surface waters. Exposure via the oral route is the predominant noninhalation pathway, resulting in the noninhalation RELs being referred to as 'oral RELs' in this document. The oral RELs are used for both ingestion and dermal exposures, and are applied using the chronic non-inhalation exposures in the residential scenario and the worker scenarios. The oral RELs are expressed as doses in milligrams of substance (consumed and dermally absorbed) per kilogram body weight per day (mg/kg-day).

Table 6.4 lists the chronic noncancer RELs to be used in the assessment of chronic health effects from noninhalation pathways of exposure. Any substances in Table 6.4 with Development or Reproductive System as a target organ system are represented in HARP and in the Appendix L REL tables under the single endpoint "Reproductive/Development". Appendix L provides a consolidated listing of all chronic RELs and target organs that are approved for use by OEHHA and ARB for the Hot Spots Program. Periodically, new or updated RELs are adopted by OEHHA and these guidelines will be updated to reflect those changes. See OEHHA's web page at <http://www.oehha.ca.gov/air/allrels.html> to determine if any new or updated RELs have been adopted since the last guideline update. Chapter 8 discusses the methods used for determining potential noncancer health impacts and Appendix I presents example calculations used to determine a HQ and HI.

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**Table 6.4 Chronic Noninhalation 'Oral' Reference Exposure Levels (RELs) and Chronic Hazard Index Target Organ System(s)**

Substance	Chemical Abstract Service No. (CAS)	Chronic Oral REL (mg/kg-day)	Chronic Oral Hazard Index Target Organ System(s)
Arsenic & Inorganic Arsenic Compounds	7440-38-2	3.5 × 10 <sup>-6</sup>	Development; Nervous System; Respiratory System; Cardiovascular System; Skin
Beryllium and Beryllium Compounds	7440-41-7	2.0 × 10 <sup>-3</sup>	Alimentary System (Gastrointestinal Tract)
Cadmium and Cadmium Compounds	7440-43-9	5.0 × 10 <sup>-4</sup>	Kidney
Chlorinated Dibenzo- <i>p</i> -dioxins <sup>a</sup>			
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin <sup>a</sup>	1746-01-6	1.0 × 10 <sup>-9</sup>	Alimentary System (Liver); Developmental; Endocrine System; Hematologic System; Reproductive System; Respiratory System
1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin <sup>a</sup>	40321-76-4	1.0 × 10 <sup>-9</sup>	
1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin <sup>a</sup>	39227-28-6	1.0 × 10 <sup>-7</sup>	
1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin <sup>a</sup>	57653-85-7	1.0 × 10 <sup>-7</sup>	
1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin <sup>a</sup>	19408-74-3	1.0 × 10 <sup>-7</sup>	
1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin <sup>a</sup>	35822-46-9	1.0 × 10 <sup>-9</sup>	
1,2,3,4,6,7,8,9-Octachlorodibenzo- <i>p</i> -dioxin <sup>a</sup>	3268-87-9	3.3 × 10 <sup>-9</sup>	
Chlorinated Dibenzofurans <sup>a</sup>			
2,3,7,8-Tetrachlorodibenzofuran <sup>a</sup>	5120-73-19	1.0 × 10 <sup>-7</sup>	Alimentary System (Liver); Development; Endocrine System; Hematologic System; Reproductive System; Respiratory System
1,2,3,7,8-Pentachlorodibenzofuran <sup>a</sup>	57117-41-6	3.3 × 10 <sup>-7</sup>	
2,3,4,7,8-Pentachlorodibenzofuran <sup>a</sup>	57117-31-4	3.3 × 10 <sup>-9</sup>	
1,2,3,4,7,8-Hexachlorodibenzofuran <sup>a</sup>	70648-26-9	1.0 × 10 <sup>-7</sup>	
1,2,3,6,7,8-Hexachlorodibenzofuran <sup>a</sup>	57117-44-9	1.0 × 10 <sup>-7</sup>	
1,2,3,7,8,9-Hexachlorodibenzofuran <sup>a</sup>	72918-21-9	1.0 × 10 <sup>-7</sup>	
2,3,4,6,7,8-Hexachlorodibenzofuran <sup>a</sup>	60851-34-5	1.0 × 10 <sup>-7</sup>	
1,2,3,4,6,7,8-Heptachlorodibenzofuran <sup>a</sup>	67562-39-4	1.0 × 10 <sup>-9</sup>	
1,2,3,4,7,8,9-Heptachlorodibenzofuran <sup>a</sup>	55673-89-7	1.0 × 10 <sup>-9</sup>	Hematologic System
1,2,3,4,6,7,8,9-Octachlorodibenzofuran <sup>a</sup>	39001-02-0	3.3 × 10 <sup>-9</sup>	
Chromium VI & Soluble Chromium VI Compounds (including chromic trioxide)	18540-29-9	2.0 × 10 <sup>-2</sup>	
Fluorides (including hydrogen fluoride)	7664-39-3	4.0 × 10 <sup>-2</sup>	Bone and Teeth
Mercury & Mercury Inorganic Compounds	7439-97-6	1.6 × 10 <sup>-4</sup>	Kidney; Nervous System; Development
Nickel & Nickel Compounds (including nickel oxide)	7440-02-0	1.1 × 10 <sup>-2</sup>	Development
Polychlorinated biphenyls (PCBs) (speciated) <sup>a</sup>			
3,3',4,4'-Tetrachlorobiphenyl (77) <sup>a</sup>	35298-13-3	1.0 × 10 <sup>-4</sup>	Alimentary System (Liver); Developmental; Endocrine System; Hematologic System; Reproductive System; Respiratory System
3,4,4',5-Tetrachlorobiphenyl (81) <sup>a</sup>	70362-50-4	3.3 × 10 <sup>-9</sup>	
2,3,3',4,4'-Pentachlorobiphenyl (105) <sup>a</sup>	32598-14-4	3.3 × 10 <sup>-4</sup>	
2,3,4,4',5-Pentachlorobiphenyl (114) <sup>a</sup>	74472-37-0	3.3 × 10 <sup>-4</sup>	
2,3,4,4',5-Pentachlorobiphenyl (118) <sup>a</sup>	31508-00-6	3.3 × 10 <sup>-4</sup>	
2,3,4,4',5-Pentachlorobiphenyl (123) <sup>a</sup>	65510-44-3	3.3 × 10 <sup>-4</sup>	
3,3',4,4',5-Pentachlorobiphenyl (126) <sup>a</sup>	57465-28-8	1.0 × 10 <sup>-7</sup>	
2,3,3',4,4',5-Hexachlorobiphenyl (156) <sup>a</sup>	38380-08-4	3.3 × 10 <sup>-4</sup>	
2,3,3',4,4',5-Hexachlorobiphenyl (157) <sup>a</sup>	69782-90-7	3.3 × 10 <sup>-4</sup>	
2,3',4,4',5,5'-Hexachlorobiphenyl (167) <sup>a</sup>	52663-72-6	3.3 × 10 <sup>-4</sup>	
3,3',4,4',5,5'-Hexachlorobiphenyl (169) <sup>a</sup>	32774-16-6	3.3 × 10 <sup>-4</sup>	
2,3,3,4,4',5,5'-Heptachlorobiphenyl (189) <sup>a</sup>	39635-31-9	3.3 × 10 <sup>-4</sup>	

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**Table 6.4 Chronic Noninhalation 'Oral' Reference Exposure Levels (RELs) and Chronic Hazard Index Target Organ System(s)**

Substance	Chemical Abstract Service No. (CAS)	Chronic Oral REL (mg/kg-day)	Chronic Oral Hazard Index Target Organ System(s)
Selenium and Selenium Compounds (other than hydrogen selenide)	7782-49-2	5.0 x 10 <sup>-3</sup>	Alimentary System (Liver); Cardiovascular System; Nervous System

<sup>a</sup> The OEHHA has adopted the World Health Organization Toxicity Equivalency Factor (TEF) scheme for evaluating the cancer risk and noncancer risk due to exposure to samples containing mixtures of polychlorinated dibenzo-*p*-dioxins (PCDD) (also referred to as chlorinated dioxins and dibenzofurans), polychlorinated dibenzofurans (PCDF), and polychlorinated biphenyls (PCBs). The TEF values are revised from time to time to reflect new data and increased scientific knowledge. Currently OEHHA recommends use of the 2005 revision to the WHO TEF values (WHO<sub>05</sub>-TEF). See Appendix E for more information about the scheme and for the methodology for calculating 2,3,7,8-equivalents for PCDD and PCDFs. For convenience, OEHHA has calculated chronic 'oral' REL values for speciated PCDDs, PCDFs, and PCBs based on the WHO<sub>05</sub> TEF values and the chronic 'oral' REL for 2,3,7,8-tetrachlorodibenzo-*p*-dioxin using the procedure discussed in Appendix E. The chronic 'oral' REL values can be used to calculate a hazard index when the mixtures are speciated from individual congener ground level concentrations. In those cases where speciation of dioxins and furans has not been performed, then 2,3,7,8-TCDD serves as the surrogate for dioxin and furan emissions.

## 6.6 References

OEHHA, 2008. Air Toxics Hot Spots Risk Assessment Guidelines Technical Support Document for the Derivation of Noncancer Reference Exposure Levels. Available online at: <http://www.oehha.ca.gov>

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## 7 - Dose-Response Assessment for Carcinogens

### 7.1 Introduction

Dose-response assessment characterizes the quantitative relationship between the amount of exposure to a substance (the dose) and the incidence or occurrence of injury (the response). The process often involves establishing a toxicity value or criterion to use in assessing potential health risk. The toxicity criterion, or health guidance value, for carcinogens is the cancer potency slope (potency factor), which describes the potential risk of developing cancer per unit of average daily dose over a 70-year lifetime. Cancer inhalation and oral potency factors have been derived by the Office of Environmental Health Hazard Assessment (OEHHA) or by the United States Environmental Protection Agency (U.S. EPA) and approved by the State's Scientific Review Panel on Toxic Air Contaminants. They are available for many of the substances listed in Appendix A (List of Substances) as carcinogens. Table 7.1 and Appendix L list the inhalation and oral cancer potency factors that should be used in multipathway health risk assessments (HRAs) for the Hot Spots Program.

The details on the methodology of dose-response assessment for carcinogens and the approved cancer potency factors are provided in the Air Toxics Hot Spots Risk Assessment Guidelines. Part II. Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures. May, 2009. (OEHHA, 2009; see [http://www.oehha.ca.gov/air/hot\\_spots/tsd052909.html](http://www.oehha.ca.gov/air/hot_spots/tsd052909.html)).

### 7.2 Carcinogenic Potency

Cancer potency factors used for both the inhalation and oral routes in the Hot Spots program are generally the 95% upper confidence limits (UCL) on the modeled dose-response slope at the low dose range. The cancer slope factor assumes continuous lifetime exposure to a substance, and is expressed in units of inverse dose [i.e.,  $(\text{mg/kg/day})^{-1}$ ]. Another common potency expression is in units of inverse concentration [ $(\mu\text{g}/\text{m}^3)^{-1}$ ] when the slope is based on exposure concentration rather than dose; this is termed the unit risk factor. To accommodate the use of age-specific exposure variates, the Hot Spots program has translated the unit risk factors based on concentration to units of inverse dose. This allows calculation of risk for age groupings, as exposure varies with age. It also allows for application of Age Sensitivity Factors for early life exposures.

It is assumed in cancer risk assessments that risk is directly proportional to dose and that, for most carcinogens, there is no threshold for carcinogenesis. The derivation of inhalation and oral cancer potency factors takes into account information on pharmacokinetics, when available, and on the mechanism of carcinogenic action.

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Table 7.1 and Appendix L list inhalation and oral cancer potency factors that should be used in risk assessments for the Hot Spots Program. Chapter 8 describes procedures for use of potency factors in estimating potential cancer risk.

### 7.2.1 Inhalation Cancer Potency Factors

The risk assessment methodology and algorithms presented in Chapter 8 express the inhalation cancer slope factors in units of inverse dose (i.e.,  $(\text{mg/kg/day})^{-1}$ ). Breathing rates, expressed in units of liters per kilogram of body weight-day ( $\text{L/kg-day}$ ), are multiplied with the air concentrations, coupled with the appropriate unit conversion factor, to estimate dose in  $\text{mg/kg-day}$ . This allows estimation of average and high-end cancer risk point estimates. Estimation of a distribution of cancer risk based on variability in breathing rate can be obtained by Monte Carlo methods using the distributions of breathing rates in  $\text{L/kg-day}$ , which can then be converted to a dose distribution in  $\text{mg/kg BW}$  based on the intake rate. Unit risk factors [in the units of inverse concentration (i.e.,  $(\mu\text{g}/\text{m}^3)^{-1}$ ), which were used in previous guidelines for the Hot Spots program, are still listed in the TSD (OEHHA, 2009) and may prove useful in other risk assessment applications.

The average daily inhalation dose ( $\text{mg/kg-day}$ ) multiplied by the cancer potency factor ( $\text{mg/kg-day})^{-1}$  will give the inhalation cancer risk (unitless), which is an expression of the chemical's cancer risk during a 70-year lifespan of exposure. For example, an inhalation cancer risk of  $5 \times 10^{-6}$  is the same as stating that an individual has an estimated probability of developing cancer from their exposure of 5 chances per million people exposed. A more complete description of how potential cancer risk is calculated from the exposure dose and cancer potency factors is provided in Chapter 8. Appendix I presents an example calculation for determining cancer risk.

A list of current inhalation potency factors is provided in Table 7.1. Periodically, new or revised cancer potency factors will be peer reviewed by the State's Scientific Review Panel on Toxic Air Contaminants (SRP) and adopted by the Director of OEHHA. For new or updated numbers, consult the OEHHA web site at ([http://www.oehha.ca.gov/air/hot\\_spots/tsd052909.html](http://www.oehha.ca.gov/air/hot_spots/tsd052909.html)) to determine if any new or updated cancer potency factors have been adopted since this guideline update. New cancer potency factors that have been approved by the SRP and adopted by the Director of OEHHA should be incorporated into Hot Spots risk assessment for facilities that emit those chemicals.

### 7.2.2 Oral Cancer Potency Factors

Under the Hot Spots Program, a few substances are evaluated for exposure and risk from non-inhalation pathways – these are referred to as multipathway substances. Multipathway substances have the potential to impact a receptor through inhalation and noninhalation (oral and dermal) exposure routes. These substances include heavy metals and semi-volatile organic substances such as dioxins, furans, and polycyclic aromatic hydrocarbons (PAHs). These substances commonly exist in the particle

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phase or partially in the particle phase when emitted into the air. They can therefore be deposited onto soil, vegetation, and water. Noninhalation exposure pathways considered under the Hot Spots Program include the ingestion of soil, homegrown produce, meat, milk, surface water, breast milk, and fish as well as dermal exposure to contaminants deposited in the soil. See Table 5.1 for a list of the multipathway substances.

Table 7.1 and Appendix L list oral cancer potency factors in units of (mg/kg-day)<sup>-1</sup> that should be used for assessing the potential cancer risk for these substances through noninhalation exposure pathways. The cancer risk from these individual pathways is calculated by multiplying the dose (mg/kg-day) times the oral cancer potency factor (mg/kg-day)<sup>-1</sup> to yield the potential cancer risk (unitless) from non-inhalation exposures. Chapter 5 provides all of the algorithms to calculate exposure dose through all of the individual exposure pathways. Appendix I provides a sample calculation for dose and cancer risk using the inhalation exposure pathway.

Three carcinogens (cadmium, beryllium, and nickel), although subject to deposition, are only treated as carcinogenic by the inhalation route and not by the oral route. Therefore, there are no oral cancer potency factors for these substances. However, the oral doses of these substances need to be estimated because of their noncancer toxicity. See Chapters 6 and 8, and Appendices I and L for dose-response factors, and calculations to address these substances.

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**Table 7.1 Inhalation and Oral Cancer Potency Factors**

Substance	Chemical Abstract Service Number (CAS)	Inhalation Potency Factor (mg/kg-day) <sup>-1</sup>	Oral Slope Factor (mg/kg-day) <sup>-1</sup>
Acetaldehyde	75-07-0	1.0 x 10 <sup>-2</sup>	
Acetamide	60-35-5	7.0 x 10 <sup>-2</sup>	
Acrylamide	79-06-1	4.5 x 10 <sup>-0</sup>	
Acrylonitrile	107-13-1	1.0 x 10 <sup>-0</sup>	
Allyl chloride	107-05-1	2.1 x 10 <sup>-2</sup>	
2-Aminoanthraquinone	117-79-3	3.3 x 10 <sup>-2</sup>	
Aniline	62-53-3	5.7 x 10 <sup>-3</sup>	
Arsenic (inorganic)	7440-38-2	1.2 x 10 <sup>-1</sup>	1.5 x 10 <sup>-10</sup>
Asbestos <sup>#</sup>	1332-21-4	2.2 x 10 <sup>-2</sup> <sup>#</sup>	
Benz[a]anthracene <sup>BaP</sup>	56-55-3	3.9 x 10 <sup>-1</sup>	1.2 x 10 <sup>-10</sup>
Benzene	71-43-2	1.0 x 10 <sup>-1</sup>	
Benztidine	92-87-5	5.0 x 10 <sup>-2</sup>	
Benzo[a]pyrene	50-32-8	3.9 x 10 <sup>-0</sup>	1.2 x 10 <sup>-1</sup>
Benzo[b]fluoranthrene <sup>BaP</sup>	205-99-2	3.9 x 10 <sup>-1</sup>	1.2 x 10 <sup>-10</sup>
Benzo[j]fluoranthrene <sup>BaP</sup>	205-82-3	3.9 x 10 <sup>-1</sup>	1.2 x 10 <sup>-10</sup>
Benzo[k]fluoranthrene <sup>BaP</sup>	207-08-9	3.9 x 10 <sup>-1</sup>	1.2 x 10 <sup>-10</sup>
Benzyl chloride	100-44-7	1.7 x 10 <sup>-1</sup>	
Beryllium	7440-41-7	8.4 x 10 <sup>-0</sup>	
Bis(2-chloroethyl) ether	111-44-4	2.5 x 10 <sup>-0</sup>	
Bis(chloromethyl)ether	542-88-1	4.6 x 10 <sup>-1</sup>	
1,3-Butadiene	106-99-0	6.0 x 10 <sup>-1</sup>	
Cadmium (and compounds)	7440-43-9	1.5 x 10 <sup>-1</sup>	
Carbon tetrachloride	56-23-5	1.5 x 10 <sup>-1</sup>	
<b>Chlorinated Dibenzo-p-dioxins <sup>A</sup></b>			
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	1.3 x 10 <sup>-5</sup>	1.3 x 10 <sup>-5</sup>
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	1.3 x 10 <sup>-5</sup>	1.3 x 10 <sup>-5</sup>
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	1.3 x 10 <sup>-4</sup>	1.3 x 10 <sup>-4</sup>
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	1.3 x 10 <sup>-4</sup>	1.3 x 10 <sup>-4</sup>
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	1.3 x 10 <sup>-4</sup>	1.3 x 10 <sup>-4</sup>
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	1.3 x 10 <sup>-3</sup>	1.3 x 10 <sup>-3</sup>
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9	3.9 x 10 <sup>-1</sup>	3.9 x 10 <sup>-1</sup>
<b>Chlorinated Dibenzofurans <sup>A</sup></b>			
2,3,7,8-Tetrachlorodibenzofuran	5120-73-19	1.3 x 10 <sup>-4</sup>	1.3 x 10 <sup>-4</sup>
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	3.9 x 10 <sup>-3</sup>	3.9 x 10 <sup>-3</sup>
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	3.9 x 10 <sup>-4</sup>	3.9 x 10 <sup>-4</sup>
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	1.3 x 10 <sup>-4</sup>	1.3 x 10 <sup>-4</sup>
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	1.3 x 10 <sup>-4</sup>	1.3 x 10 <sup>-4</sup>
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	1.3 x 10 <sup>-4</sup>	1.3 x 10 <sup>-4</sup>
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	1.3 x 10 <sup>-4</sup>	1.3 x 10 <sup>-4</sup>



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Table 7.1 Inhalation and Oral Cancer Potency Factors

Substance	Chemical Abstract Service Number (CAS)	Inhalation Potency Factor (mg/kg-day) <sup>-1</sup>	Oral Slope Factor (mg/kg-day) <sup>-1</sup>
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	1.3 x 10 <sup>-3</sup>	1.3 x 10 <sup>-3</sup>
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	1.3 x 10 <sup>-3</sup>	1.3 x 10 <sup>-3</sup>
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	3.9 x 10 <sup>-1</sup>	3.9 x 10 <sup>-1</sup>
Chlorinated paraffins	108171-26-2	8.9 x 10 <sup>-2</sup>	
Chloroform	67-66-3	1.9 x 10 <sup>-2</sup>	
4-Chloro-o-phenylenediamine	95-83-0	1.6 x 10 <sup>-2</sup>	
p-Chloro-o-toluidine	95-69-2	2.7 x 10 <sup>-1</sup>	
Chromium (hexavalent)	18540-29-9	5.1 x 10 <sup>-2</sup>	5 x 10 <sup>-1</sup>
Chrysene <sup>BaP</sup>	218-01-9	3.9 x 10 <sup>-2</sup>	1.2 x 10 <sup>-1</sup>
Creosote	8001-58-9	*	
p-Cresidine	120-71-8	1.5 x 10 <sup>-1</sup>	
Cupferron	135-20-6	2.2 x 10 <sup>-1</sup>	
2,4-Diaminoanisole	615-05-4	2.3 x 10 <sup>-2</sup>	
2,4-Diaminotoluene	95-80-7	4.0 x 10 <sup>-2</sup>	
Dibenz[a,h]acridine <sup>BaP</sup>	226-36-8	3.9 x 10 <sup>-1</sup>	1.2 x 10 <sup>-10</sup>
Dibenz[a,j]acridine <sup>BaP</sup>	224-42-0	3.9 x 10 <sup>-1</sup>	1.2 x 10 <sup>-10</sup>
Dibenz[a,h]anthracene <sup>BaP</sup>	53-70-3	4.1 x 10 <sup>-10</sup>	4.1 x 10 <sup>-10</sup>
Dibenzo[a,e]pyrene <sup>BaP</sup>	192-65-4	3.9 x 10 <sup>-10</sup>	1.2 x 10 <sup>-11</sup>
Dibenzo[a,h]pyrene <sup>BaP</sup>	189-64-0	3.9 x 10 <sup>-11</sup>	1.2 x 10 <sup>-12</sup>
Dibenzo[a,i]pyrene <sup>BaP</sup>	189-55-9	3.9 x 10 <sup>-11</sup>	1.2 x 10 <sup>-12</sup>
Dibenzo[a,l]pyrene <sup>BaP</sup>	191-30-0	3.9 x 10 <sup>-11</sup>	1.2 x 10 <sup>-12</sup>
7H-Dibenzo[c,g]carbazole <sup>BaP</sup>	194-59-2	3.9 x 10 <sup>-10</sup>	1.2 x 10 <sup>-11</sup>
1,2-Dibromo-3-chloropropane	96-12-8	7.0 x 10 <sup>-10</sup>	
1,4-Dichlorobenzene	106-46-7	4.0 x 10 <sup>-2</sup>	
3,3'-Dichlorobenzidine	91-94-1	1.2 x 10 <sup>-10</sup>	
1,1-Dichloroethane	75-34-3	5.7 x 10 <sup>-3</sup>	
Diesel exhaust <sup>B</sup>	NA	1.1 x 10 <sup>-10</sup>	
Diethylhexylphthalate	117-81-7	8.4 x 10 <sup>-3</sup>	8.4 x 10 <sup>-3</sup>
p-Dimethylaminoazobenzene	60-11-7	4.6 x 10 <sup>-10</sup>	
7,12-Dimethylbenz[a]anthracene <sup>BaP</sup>	57-97-6	2.5 x 10 <sup>-12</sup>	2.5 x 10 <sup>-12</sup>
1,6-Dinitropyrene <sup>BaP</sup>	42397-64-8	3.9 x 10 <sup>-11</sup>	1.2 x 10 <sup>-12</sup>
1,8-Dinitropyrene <sup>BaP</sup>	42397-65-9	3.9 x 10 <sup>-10</sup>	1.2 x 10 <sup>-11</sup>
2,4-Dinitrotoluene	121-14-2	3.1 x 10 <sup>-1</sup>	
1,4-Dioxane	123-91-1	2.7 x 10 <sup>-2</sup>	
Epichlorohydrin	106-89-8	8.0 x 10 <sup>-2</sup>	
Ethyl benzene	100-41-4	8.7 x 10 <sup>-3</sup>	1.1 x 10 <sup>-2</sup>
Ethylene dibromide	106-93-4	2.5 x 10 <sup>-1</sup>	
Ethylene dichloride	107-06-2	7.2 x 10 <sup>-2</sup>	
Ethylene oxide	75-21-8	3.1 x 10 <sup>-1</sup>	

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Table 7.1 Inhalation and Oral Cancer Potency Factors

Substance	Chemical Abstract Service Number (CAS)	Inhalation Potency Factor (mg/kg-day) <sup>-1</sup>	Oral Slope Factor (mg/kg-day) <sup>-1</sup>
Ethylene thiourea	96-45-7	4.5 x 10 <sup>-2</sup>	
Formaldehyde	50-00-0	2.1 x 10 <sup>-2</sup>	
Hexachlorobenzene	118-74-1	1.8 x 10 <sup>-10</sup>	
Hexachlorocyclohexanes (technical grade)	608-73-1	4.0 x 10 <sup>-10</sup>	4.0 x 10 <sup>-10</sup>
Hydrazine	302-01-2	1.7 x 10 <sup>-1</sup>	3.0 x 10 <sup>-10</sup>
Indeno[1,2,3-cd]pyrene <sup>BaP</sup>	193-39-5	3.9 x 10 <sup>-1</sup>	1.2 x 10 <sup>-10</sup>
Lead and lead compounds	7439-92-1	4.2 x 10 <sup>-2</sup>	8.5 x 10 <sup>-3</sup>
Lindane	58-89-9	1.1 x 10 <sup>-10</sup>	1.1 x 10 <sup>-10</sup>
Methyl tertiary-butyl ether	1634-04-4	1.8 x 10 <sup>-3</sup>	
3-Methylcholanthrene <sup>BaP</sup>	56-49-5	2.2 x 10 <sup>-11</sup>	2.2 x 10 <sup>-11</sup>
5-Methylchrysene <sup>BaP</sup>	3697-24-3	3.9 x 10 <sup>-10</sup>	1.2 x 10 <sup>-11</sup>
4, 4'-Methylene bis(2-chloroaniline) (MOCA)	101-14-4	1.5 x 10 <sup>-10</sup>	
Methylene chloride	75-09-2	3.5 x 10 <sup>-3</sup>	
4,4'-Methylenedianiline	101-77-9	1.6 x 10 <sup>-10</sup>	1.6 x 10 <sup>-10</sup>
Michler's ketone	90-94-8	8.6 x 10 <sup>-1</sup>	
Naphthalene	91-20-3	1.2 x 10 <sup>-1</sup>	
Nickel (and compounds)	7440-02-0	9.1 x 10 <sup>-1</sup>	
5-Nitroacenaphthene <sup>BaP</sup>	602-87-9	1.3 x 10 <sup>-1</sup>	1.3 x 10 <sup>-1</sup>
6-Nitrochrysene <sup>BaP</sup>	7496-02-8	3.9 x 10 <sup>-11</sup>	1.2 x 10 <sup>-12</sup>
2-Nitrofluorene <sup>BaP</sup>	607-57-8	3.9 x 10 <sup>-2</sup>	1.2 x 10 <sup>-1</sup>
1-Nitropyrene <sup>BaP</sup>	5522-43-0	3.9 x 10 <sup>-1</sup>	1.2 x 10 <sup>-10</sup>
4-Nitropyrene <sup>BaP</sup>	57835-92-4	3.9 x 10 <sup>-1</sup>	1.2 x 10 <sup>-10</sup>
N-Nitroso-n-butylamine	924-16-3	1.1 x 10 <sup>-1</sup>	
N-Nitroso-N-methylethylamine	10595-95-6	2.2 x 10 <sup>-1</sup>	
N-Nitrosodi-n-propylamine	621-64-7	7.0 x 10 <sup>-10</sup>	
N-Nitrosodiethylamine	55-18-5	3.6 x 10 <sup>-1</sup>	
N-Nitrosodimethylamine	62-75-9	1.6 x 10 <sup>-1</sup>	
N-Nitrosodiphenylamine	86-30-6	9.0 x 10 <sup>-3</sup>	
p-Nitrosodiphenylamine	156-10-5	2.2 x 10 <sup>-2</sup>	
N-Nitrosomorpholine	59-89-2	6.7 x 10 <sup>-10</sup>	
N-Nitrosopiperidine	100-75-4	9.4 x 10 <sup>-10</sup>	
N-Nitrosopyrrolidine	930-55-2	2.1 x 10 <sup>-10</sup>	
Pentachlorophenol	87-86-5	1.8 x 10 <sup>-2</sup>	
Perchloroethylene	127-18-4	2.1 x 10 <sup>-2</sup>	5.1 x 10 <sup>-2</sup>
Polychlorinated biphenyls (PCBs) (unspecified mixture)	1336-36-3		
(high risk) <sup>P1</sup>		2.0 x 10 <sup>-10</sup>	2.0 x 10 <sup>-10</sup>
(low risk) <sup>P2</sup>		4.0 x 10 <sup>-1</sup>	4.0 x 10 <sup>-1</sup>
(lowest risk) <sup>P3</sup>		7.0 x 10 <sup>-2</sup>	7.0 x 10 <sup>-2</sup>

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Table 7.1 Inhalation and Oral Cancer Potency Factors

Substance	Chemical Abstract Service Number (CAS)	Inhalation Potency Factor (mg/kg-day) <sup>-1</sup>	Oral Slope Factor (mg/kg-day) <sup>-1</sup>
<b>Polychlorinated biphenyls<sup>P4</sup> (PCBs) (speciated)</b>			
3,3',4,4'-Tetrachlorobiphenyl (77)	35298-13-3	1.3 x 10 <sup>-1</sup>	1.3 x 10 <sup>-1</sup>
3,4,4',5-Tetrachlorobiphenyl (81)	70362-50-4	3.9 x 10 <sup>-1</sup>	3.9 x 10 <sup>-1</sup>
2,3,3',4,4'-Pentachlorobiphenyl (105)	32598-14-4	3.9 x 10 <sup>-0</sup>	3.9 x 10 <sup>-0</sup>
2,3,4,4',5-Pentachlorobiphenyl (114)	74472-37-0	3.9 x 10 <sup>-0</sup>	3.9 x 10 <sup>-0</sup>
2,3,4,4',5-Pentachlorobiphenyl (118)	31508-00-6	3.9 x 10 <sup>-0</sup>	3.9 x 10 <sup>-0</sup>
2',3,4,4',5-Pentachlorobiphenyl (123)	65510-44-3	3.9 x 10 <sup>-0</sup>	3.9 x 10 <sup>-0</sup>
3,3',4,4',5-Pentachlorobiphenyl (126)	57465-28-8	1.3 x 10 <sup>-4</sup>	1.3 x 10 <sup>-4</sup>
2,3,3',4,4',5-Hexachlorobiphenyl (156)	38380-08-4	3.9 x 10 <sup>-0</sup>	3.9 x 10 <sup>-0</sup>
2,3,3',4,4',5-Hexachlorobiphenyl (157)	69782-90-7	3.9 x 10 <sup>-0</sup>	3.9 x 10 <sup>-0</sup>
2,3',4,4',5,5'-Hexachlorobiphenyl (167)	52663-72-6	3.9 x 10 <sup>-0</sup>	3.9 x 10 <sup>-0</sup>
3,3',4,4',5,5'-Hexachlorobiphenyl (169)	32774-16-6	3.9 x 10 <sup>-3</sup>	3.9 x 10 <sup>-3</sup>
2,3,3',4,4',5,5'-Heptachlorobiphenyl (189)	39635-31-9	3.9 x 10 <sup>-0</sup>	3.9 x 10 <sup>-0</sup>
Potassium bromate	7758-01-2	4.9 x 10 <sup>-1</sup>	
1,3-Propane sultone	1120-71-4	2.4 x 10 <sup>-0</sup>	
Propylene oxide	75-56-9	1.3 x 10 <sup>-2</sup>	2.4 x 10 <sup>-1</sup>
1,1,2,2-Tetrachloroethane	79-34-5	2.0 x 10 <sup>-1</sup>	
Thioacetamide	62-55-5	6.1 x 10 <sup>-0</sup>	
2,4-Toluene diisocyanate	584-84-9	3.9 x 10 <sup>-2</sup>	
2,6-Toluene diisocyanate	91-08-7	3.9 x 10 <sup>-2</sup>	
1,1,2-Trichloroethane (vinyl trichloride)	79-00-5	5.7 x 10 <sup>-2</sup>	
Trichloroethylene	79-01-6	7.0 x 10 <sup>-3</sup>	1.5 x 10 <sup>-2</sup>
2,4,6-Trichlorophenol	88-06-2	7.0 x 10 <sup>-2</sup>	
Urethane	51-79-6	1.0 x 10 <sup>-0</sup>	
Vinyl chloride	75-01-4	2.7 x 10 <sup>-1</sup>	

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Notes for Table 7.1

- # Asbestos: [100 PCM fibers/m<sup>3</sup>] A unit risk factor of 2.7 x 10<sup>-6</sup> (μg/m<sup>3</sup>)<sup>-1</sup> and an inhalation cancer potency factor of 2.2 x 10<sup>-2</sup> (mg/kg BW\*day)<sup>-1</sup> are available (see Appendix C for explanation).
- BaP PAHs and PAH Derivatives: Many have potency equivalency factors relative to benzo[a]pyrene (see Appendix G). For multipathway chemicals, including PAHs, the oral slope factor is considered the same as the inhalation potency factor unless otherwise noted in the Table.
- A Polychlorinated Dibenzo-*p*-dioxins, Polychlorinated Dibenzofurans and speciated polychlorinated biphenyls: (see Appendix E). For convenience, OEHA has calculated cancer potency factors for speciated polychlorinated dibenzo-*p*-dioxin, polychlorinated dibenzofuran and polychlorinated biphenyl congeners using the procedure in Appendix E.
- B Diesel Exhaust is listed as a Toxic Air Contaminant by the Air Resources Board as "Particulate Matter from Diesel-Fueled Engines". (See Appendix D)
- \* Creosote: Can be calculated using Potency Equivalency Factors contained in the benzo[a]pyrene Toxic Air Contaminant document and in Appendix G of these guidelines.
- P1 Polychlorinated Biphenyls (PCBs): High Risk is for use in cases where congeners with more than four chlorines do not comprise less (are greater) than one-half percent of total PCBs. The high risk number is the default for unspeciated PCB mixtures.
- P2 The low risk number is generally not applicable to the Hot Spots program. The Hot Spots program addresses PCBs emitted by stationary facilities. It cannot be assumed that such emissions would occur by simple evaporation. There is a dermal absorption factor applied in evaluation of the dermal pathway for PCBs so the medium risk would not apply to dermal exposure (OEHA, 2009). The water pathway does not include an assumption that PCB isomers are water soluble, so the medium number would not apply to the water pathway.
- P3 Polychlorinated Biphenyls (PCBs): Lowest Risk is for use in cases where congeners with more than four chlorines comprise less than one-half percent of total PCBs. In order for the low number to be used, scientific justification needs to be presented.
- P4 Number in parentheses is the IUPAC #, the PCB nomenclature is IUPAC. For multipathway chemicals, including PCBs, the oral slope factor is considered the same as the inhalation potency factor unless otherwise noted in the Table.

7.3 References

OEHA, 2009. Air Toxics Hot Spots Risk Assessment Guidelines. Part II. Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures. May, 2009. Available online at: [http://www.oehha.ca.gov/air/hot\\_spots/tsd052909.html](http://www.oehha.ca.gov/air/hot_spots/tsd052909.html)

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### 8 - Risk Characterization for Carcinogens and Noncarcinogens and the Requirements for Hot Spots Risk Assessments

#### 8.1 Introduction

Risk characterization is the final step of the health risk assessment (HRA). In this step, information developed through the exposure assessment is combined with information from the dose-response assessment to characterize risks to the general public from emissions. In the Hot Spots program, OEHHA conducts the dose-response assessment during the development of cancer potency factors and Reference Exposure Levels. These are used in conjunction with the exposure estimates to estimate cancer risk and evaluate hazard from noncancer toxicity of emitted chemicals. Under the Air Toxics Hot Spots (Hot Spots) Act, risk characterizations should present both individual and population-wide health risks (Health and Safety Code Section (HSC) 44306). Persons preparing HRAs for the Hot Spots Program should consult the local Air Pollution Control or Air Quality Management District (District) to determine if the District has special guidelines to assist with HRA format or other requirements of the Hot Spots Program.

OEHHA is recommending that a 30-year exposure duration be used as the basis for estimating cancer risk at the maximum exposed individual resident (MEIR) in the Hot Spots Program. This exposure duration represents the time of residency for 90 to 95% of Californians at a single location and should provide adequate public health protection against individual risk. We also recommend including the 9 and 70-year cancer risk at the MEIR as supplemental information. Note that a 70-year exposure duration is required to estimate cancer burden or provide an estimate of population-wide risk.

This chapter provides guidance on how to evaluate the risk characterization component of risk assessments required by the Hot Spots Program. A general summary of the risk characterization components includes the following items and information.

- The locations of the point of maximum impact (PMI), the MEIR, and the maximum exposed individual worker (MEIW) are to be identified. The PMI, MEIW, and MEIR for cancer risk and for noncancer hazard indices (averaging times for acute 1-hour, repeated 8-hour, and chronic hazard indices) may not be the same location; all should be identified.

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- The location of any specified sensitive receptors (e.g., schools, hospitals, daycare, or eldercare facilities - contact the District or reviewing authority for more information) should be identified
- Estimates of population-wide cancer risk and noncancer hazard

This information must be clearly presented in cross-referenced text, tables, figures, and maps. Chapter 9 provides an outline that specifies the content and recommended format of HRA results. The HARP software is the recommended model for calculating HRA results for the Hot Spots Program. Information on obtaining the HARP software can be found under the Air Toxics Program on the ARB's web site at [www.arb.ca.gov](http://www.arb.ca.gov).

#### 8.1.1 Tiered Approach to Risk Assessment

The tiered approach for risk assessment that is presented in detail in the TSD (OEHHA, 2012) and summarized here should be reviewed prior to conducting the health risk assessment. The tiered approach to risk assessment and the health impacts evaluation described here are included in the HARP software.

The tiered approach provides a risk assessor with flexibility and allows consideration of site-specific differences (Table 8.1). The four-tiered approach to risk assessment is intended to primarily apply to residential cancer risk assessment, both for inhalation and noninhalation pathways. Risk assessors can tailor the level of effort and refinement of an HRA by using either the point estimate exposure assumptions as the basis of the exposure and risk assessment, or both the point estimate and a stochastic treatment of exposure factor distributions.

**Table 8.1 The Tiered Approach to Risk Assessment**

Tier	Description	When Applied
Tier 1	Utilizes OEHHA default point estimates of exposure variates	All risk assessments must include a Tier 1 assessment
Tier 2	Utilizes site-specific point estimates for exposure variates (justified, and approved by OEHHA)	A Tier 2 approach may be presented in addition to Tier 1
Tier 3	Utilizes OEHHA distributions of exposure variates	A Tier 3 approach may be presented in addition to Tier 1
Tier 4	Utilizes site-specific distributions of exposure variates (justified, and approved by OEHHA)	A Tier 4 approach may be presented in addition to Tier 1

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Tier 1 is a standard point estimate approach that uses the recommended exposure variate (e.g., breathing or water ingestion rate) point estimates presented in this document. Derivations of these values are described in detail in OEHHA (2012). The results of the Tier 1 evaluations are required to be presented in the risk characterization section for all HRAs prepared for the Hot Spots Program. Thus, persons preparing an HRA using Tier 2 through Tier 4 evaluations must also include the risk characterization results of a Tier 1 evaluation in the HRA.

As discussed in OEHHA (2012), if the risk characterization results from a Tier 1 assessment are above a regulatory level of concern, the risk assessor may want to proceed with more site-specific analysis as described in Tier 2, or use a more resource-intensive stochastic modeling effort described in Tier 3 and Tier 4 (for cancer risk). While further evaluation may provide more information to the risk manager on which to base decisions, the Tier 1 evaluation is useful in comparing risks among a large number of facilities and must be included in all HRAs.

Tier 2 analysis allows the use of available and justifiable site-specific exposure variates (e.g., fish consumption), when presenting the potential health impacts. The site-specific information applied in a Tier 2 assessment must be adequately justified and approved by OEHHA and the District. In Tier 3, a stochastic approach to exposure assessment is taken using the distributions for the exposure pathways presented in the TSD (OEHHA, 2012) and in Chapter 5 of this Guidance Manual. The exposure distributions apply only to a residential receptor and are used only for the determination of cancer risk. OEHHA has not developed exposure intake distributions for workers to use in the offsite worker exposure scenario. Tier 4 is also a stochastic approach for the residential exposure scenario but allows for utilization of site-specific exposure variate distributions if they are justifiable and more appropriate for the site under evaluation than those derived in OEHHA (2012). Alternative site-specific distributions must be approved by OEHHA and the District. For an off-site worker cancer risk evaluation, Tiers 3 and 4 do not apply. Tier 3 and Tier 4 analyses show what a distribution of potential cancer risk may be to an individual or population based on a distribution of exposure inputs (e.g., water ingestion rate) rather than specific point estimates of exposure.

Table 8.2 summarizes OEHHA's recommendations for use of the four Tiers in cancer and noncancer risk assessment.

**Table 8.2 Tiers for Residential and Offsite Worker Cancer and Noncancer Hot Spots Risk Assessments**

Tier	Cancer		Non Cancer Chronic and 8-Hour	
	Inhalation	Noninhalation	Inhalation	Noninhalation
Tier-1	X	X	X	X
Tier-2	X	X		X <sup>b</sup>
Tier-3	X <sup>a</sup>	X <sup>a</sup>		
Tier-4	X <sup>a</sup>	X <sup>a</sup>		

<sup>a</sup> Applies to residential exposure scenario only

<sup>b</sup> Applies to chronic noncancer exposure only

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OEHHA has not developed a stochastic approach (Tier 3 or 4) for estimating noncancer health impacts using acute, 8-hour, and chronic Reference Exposure Levels (RELs). Tier 1 is the only option for determining noncancer health impacts from inhalation exposure since calculating the hazard quotient involves dividing the ground level air concentrations for the specified exposure duration by the appropriate RELs. However, chronic noninhalation noncancer risks involve a calculation of dose from oral or dermal pathways to which site-specific evaluations could be considered under a Tier 2 approach.

#### Small foot-print facilities – Tier 2 or Tier 4

Some facilities subject to the Air Toxics Hot Spots Act (e.g., some in the industry-wide categories such as gas stations or dry cleaners) have very small zones of impact. In some of these instances, there will be very few receptors within the zone of impact. It isn't possible to develop special recommendations for exposure variates for all possible exposure scenarios. Alternative breathing rates (point estimates or distributions) may be used as part of Tier 2 or Tier 4 risk assessments with appropriate supporting justification in the case of a very small zone of impact. OEHHA is willing to work with risk managers at ARB and the Districts on this issue.

### 8.2 Risk Characterization for Carcinogens

Cancer risk is calculated by multiplying the daily inhalation or oral dose (calculated in Chapter 5), by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home (for residents only), and the exposure duration divided by averaging time, to yield the excess cancer risk (see section 8.2.4). As described below, the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk at the receptor location. A brief description of the age sensitivity factors, exposure duration, and frequency of time spent at home are included in Sections 8.2.1 to 8.2.3 below. These factors are discussed in detail in OEHHA (2009) and OEHHA (2012).

#### 8.2.1 Adjustment for Early Life Stage Exposures to Carcinogens

Studies have shown that young animals are more sensitive than adult animals to exposure to many carcinogens (OEHHA, 2009). Therefore, OEHHA developed age sensitivity factors (ASFs) to take into account the increased sensitivity to carcinogens during early-in-life exposure (Table 8.3). These factors were developed and described in detail in OEHHA (2009). In the absence of chemical-specific data, OEHHA recommends a default ASF of 10 for the third trimester to age 2 years, and an ASF of 3 for ages 2 through 15 years to account for potential increased sensitivity to carcinogens during childhood.

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**Table 8.3 Age Sensitivity Factors by Age Group for Cancer Risk Assessment**

Age Group	Age Sensitivity Factor (unitless)
3 <sup>rd</sup> Trimester	10
0<2 years	10
2<9 years	3
2<16 years	3
16<30 years	1
16-70 years	1

For specific carcinogens where data indicate enhanced sensitivity during life stages other than the immediate postnatal and juvenile periods, or for which data demonstrate ASFs different from the default ASFs, the chemical-specific data should be used in order to adequately protect public health.

The risk assessments generated under the Air Toxics Hot Spots Act are reviewed by OEHHA. If a risk assessor had data indicating there are no windows of susceptibility early in life or that a different ASF should be used for a specific carcinogen and wanted to use these data, OEHHA would review the material as part of the review of the risk assessment.

### 8.2.2 Fraction of Time Spent at Home for Cancer Risk Assessment

OEHHA and ARB evaluated information from activity patterns databases to estimate the fraction of time at home (FAH) during the day (OEHHA, 2012). This information can be used to adjust exposure duration and cancer risk from a specific facility's emissions, based on the assumption that exposure to the facility's emissions are not occurring away from home. From the third trimester to age <2 years, 85% of time is spent at home (Table 8.4). From age 2 through <16 years, 72% of time is spent at home. From age 16 years and greater, 73% of time is spent at home. Facilities with any school within the  $1 \times 10^{-6}$  (or greater) isopleth should use FAH = 1 for the child age groups (3<sup>rd</sup> Trimester, 0<2 years, and 2<16 years). See Appendix I for an example calculation using the FAH.

**Table 8.4 Recommendations for Fraction of Time at Home (FAH) for Evaluating Residential Cancer Risk**

Age Range	Fraction of Time at Residence
3 <sup>rd</sup> Trimester, and 0<2 years	0.85 <sup>1</sup>
2<16 years <sup>2</sup>	0.72 <sup>1</sup>
16-70 years <sup>3</sup>	0.73

<sup>1</sup> Use FAH = 1 if a school is within the  $1 \times 10^{-6}$  (or greater) cancer risk isopleth

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<sup>2</sup> Also use FAH = 0.72 for 2<9 yr age group.  
<sup>3</sup> Also use FAH = 0.73 for 16<30 yr age group.

The FAH is calculated based on a diary of trips taken over a 24-hour period on the survey day. Ninety-five percent of the diary days were on weekdays. Participants can select "vacation" as one of their trips. However, vacation time represented only a fraction (0.68%) of the over 175,000 trips recorded in the survey. Because much of these vacation trips were presumed to be within-day trips and were only a small fraction of total trips, there is likely little overlap with the Exposure Frequency (EF) variate used in the dose equations in Chapter 5.

### 8.2.3 Exposure Duration for Estimating Cancer Risk to Residents and Off-Site Workers

OEHHA recommends that an exposure duration (residency time) of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident (MEIR) (Table 8.5). OEHHA also recommends that the 30-year exposure duration be used as the basis for public notification and risk reduction audits and plans. The Districts, however, may opt to use the 70 year cancer risk for notification and risk reduction audits and plans.

Note that the 30-year exposure duration starts in the third trimester to accommodate the increased susceptibility of exposures in early life (OEHHA, 2009), and would apply to both the point estimate and stochastic approaches.

**Table 8.5 Summary of Recommendations for Exposure Duration for Individual Cancer Risk at the MEIR and MEIW**

Receptor	Recommendation
Resident (MEIR)	30 years
Resident (supplemental Information)	9 years for central tendency; 70 years for maximum (lifetime)
Worker (MEIW)	25 years

Exposure durations of 9-years and 70-years are also recommended to be evaluated for the MEIR to show the range of cancer risk based on residency periods. If a facility is notifying the public regarding cancer risk, the 9- and 70-year cancer risk estimates are useful for people who have resided in their current residence for periods shorter and longer than 30 years.

The 9-, 30-, and 70-year exposures are chosen to coincide with U.S. EPA's estimates of the average (9 years), high-end estimates (30-years) of residence time, and a lifetime residency (70 years). These estimates are also consistent with what is known about residence time in California. Together, the 9-, 30-, and 70-year cancer risk calculations provide a useful presentation of cancer risk and the relationship to duration of residency and, thus, exposure to a facility's emissions.



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For the maximally exposed individual worker (MEIW), OEHHA recommends using an exposure duration of 25 years to estimate individual cancer risk for the off-site worker scenario (Table 8.5). This duration represents approximately the 95th percentile of job tenure with the same employer in the U.S.

#### 8.2.4 Calculating Residential and Offsite Worker Inhalation Cancer Risk

##### Residential Receptors

For residential inhalation exposure, cancer risk must be separately calculated for specified age groups (Eq. 8.2.4A, see Section 8.2.1), because of age differences in sensitivity to carcinogens and age differences in intake rates (per kg body weight). Separate risk estimates for these age groups provide a health-protective estimate of cancer risk by accounting for greater susceptibility in early life, including both age-related sensitivity and amount of exposure. The following equation illustrates the formula for calculating residential inhalation cancer risk. See Appendix I for a detailed example calculation.

**A. Equation 8.2.4 A:**  $RISK_{inh-res} = DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$

7.  $RISK_{inh-res}$  = Residential inhalation cancer risk
8.  $DOSE_{air}$  = Daily inhalation dose (mg/kg-day)
9.  $CPF$  = Inhalation cancer potency factor (mg/kg-day<sup>-1</sup>)
10.  $ASF$  = Age sensitivity factor for a specified age group (unitless)
11.  $ED$  = Exposure duration (in years) for a specified age group
12.  $AT$  = Averaging time for lifetime cancer risk (years)
13.  $FAH$  = Fraction of time spent at home (unitless)

##### a: Recommended default values for EQ 8.2.4 A:

5.  $DOSE_{air}$  = Calculated for each age group from Eq. 5.4.1
6.  $CPF$  = Substance-specific (see Table 7.1)
7.  $ASF$  = See Section 8.2.1
8.  $ED$  = 0.25 years for 3<sup>rd</sup> trimester, 2 years for 0<2, 7 years for 2<9, 14 years for 2<16, 14 years for 16<30, 54 years for 16-70
9.  $AT$  = 70 years\*
10.  $FAH$  = See Table 8.4

\*Although AT actually sums to 70.25 years when the 3<sup>rd</sup> trimester (0.25 years) is included, OEHHA recommends rounding AT = 70 years (and rounding residential exposure durations at 9- and 30-years rather than 9.25- and 30.25-years) to simplify the calculation without causing a significant adjustment. Note that the dose for the 3<sup>rd</sup> trimester is based on the breathing rate of pregnant women using the assumption that the dose to the fetus during the 3<sup>rd</sup> trimester is the same as that to the mother.

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Cancer risks calculated above for individual age groups are summed to estimate cancer risk for 9-, 30- and 70-year exposures as shown below. Note that this example includes the Fraction of Time Spent at Home (FAH) for each age grouping.

#### Calculation of Inhalation Cancer Risk from the Third Trimester to Age Nine:

$$RISK_{inh-res} = (DOSE_{air} \text{ third trimester} \times CPF \times 10 \times 0.25/70 \text{ years} \times FAH_{3rd \text{ tri } <2}) + (DOSE_{air} \text{ age } 0<2 \times CPF \times 10 \times 2/70 \times FAH_{3rd \text{ tri } <2}) + (DOSE_{air} \text{ age } 2<9 \times CPF \times 3 \times 7/70 \text{ years} \times FAH_{2<9})$$

#### Calculation of Inhalation Cancer Risk from Third Trimester to Age 30:

$$RISK_{inh-res} = (DOSE_{air} \text{ third trimester} \times CPF \times 10 \times 0.25/70 \text{ years} \times FAH_{3rd \text{ tri } <2}) + (DOSE_{air} \text{ age } 0<2 \times CPF \times 10 \times 2/70 \times FAH_{3rd \text{ tri } <2}) + (DOSE_{air} \text{ age } 2<16 \times CPF \times 3 \times 14/70 \times FAH_{2<16}) + (DOSE_{air} \text{ age } 16<30 \times CPF \times 1 \times 14/70 \text{ years} \times FAH_{16-30})$$

#### Calculation of Inhalation Cancer Risk from Third Trimester to Age 70:

$$RISK_{inh-res} = (DOSE_{air} \text{ third trimester} \times CPF \times 10 \times 0.25/70 \text{ years} \times FAH_{3rd \text{ tri } <2}) + (DOSE_{air} \text{ age } 0<2 \times CPF \times 10 \times 2/70 \times FAH_{3rd \text{ tri } <2}) + (DOSE_{air} \text{ age } 2<16 \times CPF \times 3 \times 14/70 \times FAH_{2<16}) + (DOSE_{air} \text{ age } 16<70 \times CPF \times 1 \times 54/70 \text{ years} \times FAH_{16-70})$$

Expressing cancer risk in “chances per million” is useful as a risk communication tool for the public, but cancer risk can also be expressed in other ways, such as “chances per 100,000” (cancer risk  $\times 10^5$ ) or “chances per 10 million” (cancer risk  $\times 10^7$ ). To convert the resulting cancer risk estimate to chances of developing cancer per million individuals exposed, multiply the cancer risk by  $10^6$ :

$$\text{Cancer risk} \times 10^6 = \text{chances per million}$$

For exposure to multiple carcinogenic substances, Table 8.7 and Table I.5 in Appendix I are examples of how cancer risks of individual substances are summed to determine the total cancer risk.

##### Worker Receptors

For assessment of off-site worker cancer risk at the MEIW, the default assumes working age begins at 16 years. Note that the residential FAH factor in Eq. 8.2.4.A above does not apply for workers. The daily inhalation dose ( $DOSE_{air}$ ) (as calculated in Chapter 5, EQ 5.4.1.2) is based on the adjusted 8-hour concentration at the MEIW (for non-continuous sources) and amount of time the offsite worker's schedule overlaps with the facility's emission schedule. The duration of exposure at the MEIW receptor is 25 years, as discussed in the TSD (OEHHA, 2012).



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#### B. Equation 8.2.4 B: $RISK_{inh-work} = DOSE_{air} \times CPF \times ASF \times ED/AT$

1.  $RISK_{inh-work}$  = Worker inhalation cancer risk

#### a: Recommended default values for EQ 8.2.4 B:

1.  $DOSE_{air}$  = Calculated for workers in Eq. 5.4.1.2
2. CPF = Substance specific (see Table 7.1)
3. ASF = 1 for working age 16-70 yrs (See Section 8.2.1)
4. ED = 25 years
5. AT = 70 yrs for lifetime cancer risk

#### Work Locations with Daycare Facilities:

An additional risk management consideration for offsite worker cancer risk assessment of a Hot Spots facility is whether there are women of child bearing age at the MEIW location and whether the MEIW has a daycare center. In the case of women of child-bearing age at the MEIW, the Districts may wish to treat the off-site MEIW in the same way as the residential scenario to account for the higher susceptibility during the third trimester of pregnancy (i.e., use of an  $ASF=10$  for third trimester exposure). If there is onsite daycare at the MEIW, then the risks to the children will be underestimated using the offsite adult worker scenario. In this case, the Districts may wish to include a cancer risk assessment for the children in the onsite daycare, assuming they could be there from 0 to age 6 years (ED = 6 years) and using the appropriate exposure factors to calculate  $DOSE_{air}$ , fraction of time at worksite (e.g., hrs at daycare per 24 hrs), and ASFs in EQ 8.2.4 B to account for the higher susceptibility of infants and children to carcinogens.

Children at a MEIW daycare may also be assessed for noninhalation exposures. Typically, soil ingestion and dermal exposure will be the most common noninhalation pathways. However, all pathways that are present at the daycare should be included. See section 8.2.6 for more discussion of multipathway risk assessment methods.

#### 8.2.5 Calculation of Noninhalation Cancer Risk

A small subset of Hot Spots substances is subject to deposition onto the soil, plants, and water bodies (see Table 5.1). These substances need to be evaluated by the appropriate noninhalation pathways, as well as by the inhalation pathway, and the risk characterization results must be presented in all HRAs. These substances include semi-volatile organic chemicals and heavy metals.

For all multipathway substances, the exposure pathways that must be evaluated at every residential and worker site (in addition to inhalation) are soil ingestion and dermal exposure. If PAHs (and creosotes), lead, dioxins, furans, or PCBs are emitted, then the breast-milk consumption pathway becomes mandatory for residential receptors. OEHHA has developed transfer coefficients for these chemicals from the mother to breast milk (see OEHHA, 2012 for details). The other exposure pathways (e.g.,

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ingestion of homegrown produce or fish) are only evaluated for residential receptors if the facility impacts that exposure medium and the receptor under evaluation can be exposed to that medium or pathway. For example, if the facility does not impact a fishable body of water within the isopleth of the facility, or the impacted water body does not sustain fish that are consumed by fishers, then the fish pathway will not be considered for that facility or receptor.

Table 8.6 identifies the residential receptor exposure pathways that are mandatory and those that are dependent on the available routes of exposure. Table 8.6 also identifies the three exposure pathways that are relevant for a worker receptor. The cancer risk estimates should be presented in the risk characterization section of the risk assessment for all the appropriate pathways.

**Table 8.6 Mandatory and Site/Route Dependent Exposure Pathways**

Mandatory Exposure Pathways	Site/Route Dependent Exposure Pathways
<ul style="list-style-type: none"> <li>• Inhalation<sup>w</sup></li> <li>• Soil Ingestion<sup>w</sup></li> <li>• Dermal Exposure to Contaminated Soil<sup>w</sup></li> <li>• Breast Milk Consumption<sup>*</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Homegrown Produce Ingestion</li> <li>• Angler-Caught Fish Ingestion</li> <li>• Drinking Water Ingestion</li> <li>• Home-Raised Animal Product Ingestion (Dairy (Cow's) Milk, Meat (Beef, Pork, Chicken) and Egg).</li> </ul>

(w) Identifies the appropriate exposure pathways that should be evaluated for a worker. These pathways are inhalation, dermal exposure, and the soil ingestion pathway.

(\*) If PAHs (including creosotes), lead, dioxins, furans, or PCBs are emitted, then the breast-milk consumption pathway becomes mandatory.

The noninhalation residential cancer risk is calculated using the same steps as inhalation cancer risk described in Section 8.2.4. A dose (see Chapters 4 and 5) from the pathway under evaluation (e.g., soil ingestion) is multiplied by the substance-specific oral slope factor, expressed in units of inverse dose (i.e.,  $(mg/kg/day)^{-1}$ ) (Table 7.1), the appropriate age sensitivity factor (ASF), and exposure duration divided by averaging time to yield the cancer risk for a specified age grouping. Cancer risk for each age group is summed as appropriate for the exposure duration. The FAH factor is relevant only to the inhalation pathway and is not appropriate to use in the noninhalation pathways.

Equation 8.2.5 illustrates the formula for calculating noninhalation cancer risk. Details (data, algorithms, and guidance) for each exposure pathway are presented in Chapter 5 and in OEHHA (2012).



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#### A. Equation 8.2.5: $RISK_{noninh} = DOSE_{noninh} \times CPF_{oral} \times ASF \times ED/AT$

1.  $RISK_{noninh}$  = Noninhalation pathway cancer risk
2.  $DOSE_{noninh}$  = Daily dose (mg/kg-day) for a specified non-inhalation pathway for each age group
3.  $CPF_{oral}$  = Oral cancer potency (slope) factor (mg/kg-day<sup>-1</sup>)
4. ASF = Age sensitivity factor for a specified age group (unitless)
5. ED = Exposure duration (in years) for a specified age group
6. AT = Averaging time for lifetime cancer risk

#### a: Recommended default values for EQ 8.2.5:

1.  $DOSE_{noninh}$  = Calculated in Chapter 5 dose algorithms for each age group and for each noninhalation route in Table 8.6 the receptor is exposed to
2.  $CPF_{oral}$  = Substance-specific (see Table 7.1)
3. ASF = See Section 8.2.1
4. ED = Residents: 0.25 years for 3<sup>rd</sup> trimester, 2 years for 0<2, 7 years for 2<9, 14 years for 2<16, 14 years for 16<30, 54 years for 16-70  
= Offsite worker: 25 yrs
5. AT = 70 years

Estimating cancer risk for 9-, 30- and 70-years by summing the individual age-group cancer risks is the same as that shown for the inhalation route in Section 8.2.4. The exception is that the FAH variate is only appropriate for the residential inhalation pathway and is not a factor for oral and dermal exposure pathways.

#### Calculation of Noninhalation Cancer Risk from Third Trimester to Age 30:

$$RISK_{noninh-res} = (DOSE_{noninh} \text{ third trimester} \times CPF \times 10 \times 0.25/70 \text{ years}) + (DOSE_{noninh} \text{ age } 0<2 \times CPF \times 10 \times 2/70) + (DOSE_{noninh} \text{ age } 2<16 \times CPF \times 3 \times 14/70) + (DOSE_{noninh} \text{ age } 16<30 \times CPF \times 1 \times 14/70 \text{ years})$$

To convert this estimated probability of risk to chances per million of developing cancer, multiply the estimated cancer risk for each noninhalation exposure route by 10<sup>6</sup>. This result is useful communication tool to compare risks for each pathway of exposure.

Cancer risk x 10<sup>6</sup> = cancer risk expressed as chances per million

For assessment of the offsite worker the typical noninhalation pathways that apply for worker cancer risk are the dermal exposure pathway and the soil ingestion pathway.

Children at a MEIW daycare may also be assessed for noninhalation exposures. Typically, soil ingestion and dermal exposure will be the most common noninhalation pathways. However, all pathways that are present at the daycare should be included.

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#### 8.2.6 Multipathway Cancer Risk Methodology

Under a Tier 1 assessment, it is necessary to calculate the total cancer risk from both inhalation and noninhalation exposures if multipathway substances are emitted from the facility. The calculation of cancer risk that includes exposure to a multipathway substance or substances has three steps:

- 1) Calculate cancer risk for the inhalation pathway (EQ 8.2.4 A for residents, EQ 8.2.4 B for off-site workers) for all substances, and the noninhalation pathways that apply (EQ 8.2.5) for all multipathway substances, using high-end point estimates of intake rates.
- 2) For each multipathway substance, identify the two exposure pathways with the highest risk. These are the dominant pathways that are to be assessed using high-end point estimates of intake rates for the total cancer risk. For all other pathways, the average point estimate of intake rates may be used to calculate the pathway cancer risk (See OEHHA (2012) for more information).
- 3) To calculate total cancer risk, all inhalation and noninhalation pathways are summed together for all substances.

The final cancer risk calculation using a combination of high-end and average exposure parameters is referred to as the derived risk in the HARP software. This is described in Chapter 1, Section 1.4.1 of OEHHA (2012). The inhalation route is almost always one of the two dominant pathways in a multipathway cancer risk assessment. Therefore, in most cases only one noninhalation pathway would be calculated using a high-end dose point estimate. For all other pathways, the average point estimate may be used to calculate the pathway cancer risk.

For example, if dermal exposure and soil ingestion risks are calculated, then the cancer risks from these pathways would be summed along with the inhalation cancer risks to give the total cancer risk for the single multipathway substance:

$$\text{Cancer Risk (inhalation)} + \text{Cancer Risk (dermal)} + \text{Cancer Risk (soil)} = \text{Total Risk}$$

The mother's milk pathway also becomes a mandatory pathway to assess risk in nursing infants if the mother is exposed to specific substances (see Table 5.1).

Many facilities will emit multiple carcinogenic substances. If multiple substances are emitted, the substance-specific cancer risks for all exposure pathways are summed to give the (total) multipathway cancer risk at the receptor location. The HARP software will display not only the multipathway risk for each carcinogenic substance, but also show a breakdown of the cancer risk from each exposure pathway. Table 8.7 shows the results of a multipathway risk assessment for a hypothetical facility. While not presented in the following table, it is critical to identify the driving exposure pathways and the driving substances in a multipathway cancer risk assessment when summarizing and presenting the HRA results. See Chapter 9 for more information.



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**Table 8.7 Multipathway Assessment of a Hypothetical Facility 30-Year Cancer Risk**

Substance	Cancer Risk <sup>a</sup>	Cancer risk <sup>b</sup> (chances per million)
Arsenic	$1.1 \times 10^{-5}$ (i) $3 \times 10^{-7}$ (ni)	11 (i) 0.3 (ni)
Benzene	$2.92 \times 10^{-4}$ (i)	292 (i)
2,3,7,8-TCDD (dioxin)	$1.06 \times 10^{-4}$ (i) $5.7 \times 10^{-5}$ (ni)	106 (i) 57 (ni)
1,3-Butadiene	$6.0 \times 10^{-5}$ (i)	6 (i)
<b>Total Facility Cancer Risk</b>	<b><math>4.723 \times 10^{-4}</math></b>	<b>472</b>

<sup>a</sup> As calculated in EQ 8.2.4 A or EQ 8.2.5

<sup>b</sup> Calculated as: cancer risk  $\times 10^5$  = chances per million

i = inhalation pathway contribution

ni = noninhalation pathway contribution

Cancer risk in Table 8.7 for the multipathway substances, arsenic and 2,3,7,8-TCDD, is arranged by the inhalation pathway risk and the sum of all noninhalation pathway risks. The total facility multipathway cancer risk is the sum of all inhalation and noninhalation pathways.

Cancer risks from different substances are treated additively in risk assessment generally, and in the Hot Spots Program in part because many carcinogens act through the common mechanism of DNA damage. The additive assumption is reasonable from a public health point of view. Other possible interactions of multiple carcinogens include synergism (effects are greater than additive) or antagonism (effects are less than additive). The type of interaction is both chemical and dose dependent and in most cases the data are not available to adequately characterize these interactions.

### 8.2.7 Multipathway Cancer Risk for Infant Exposure to Mother's Milk

The mother's milk pathway becomes mandatory if the nursing mother is exposed to one or more of the following multipathway substances: dioxins and furans, PCBs, PAHs including creosotes, and lead. The default assumption inherent in the intake rate is that the infant's only source of food is breast for the first year (e.g., is fully breastfed, see OEHHA, 2012, for details), which is one-half of the 0<2 year age group used in the Hot Spots program. Thus, the cancer risk by the mother's milk pathway will need to be calculated with a modified cancer risk equation using a different exposure duration:

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### A. Equation 8.2.7: $RISK_{mm} = Dose-Im \times CPF_{oral} \times ASF \times ED/AT$

1.  $RISK_{mm}$  = Infant cancer risk via mother's milk pathway
2. Dose-Im = Daily dose (mg/kg-day) to infant from mother's milk
3.  $CPF_{oral}$  = Oral cancer slope factor (mg/kg-day<sup>-1</sup>)
4. ASF = Age sensitivity factor for infant (unitless)
5. ED = Exposure duration (in years) for infant
6. AT = Averaging time for lifetime cancer risk

#### a: Recommended default values for EQ 8.2.7:

6. Dose-Im = Calculated from EQ 5.4.3.5.2, dose to infant via mother's milk
7.  $CPF_{oral}$  = Substance-specific (see Table 7.1)
8. ASF = 10 (See Section 8.2.1)
9. ED = 1 yr (1<sup>st</sup> yr of 0<2 yr age group)
10. AT = 70 years

Once the cancer risk is determined for the mother's milk pathway for each applicable substance, the pathway risk is summed with other pathway risks.

For Tier 1, the derived approach for cancer risk assessment should be used if the mother's milk pathway applies. As outlined in Section 8.2.6, the two dominant pathways will be calculated using high-end point estimates of intake rates; all additional pathways may be calculated using average point estimates of intake rates. There will be four mandatory pathways to assess (inhalation, mother's milk, soil ingestion and dermal exposure) for cancer risk when exposure to dioxins/furans, PCBs, PAHs including creosotes, and/or lead occurs. Therefore, if the infant is exposed to no other additional site-specific noninhalation pathway(s), only the two dominant pathways among the four will be assessed for cancer risk using high-end point estimates of intake rates; and the others would be assessed using the average point estimate of intake rate.

In short, multipathway cancer risk for a substance is estimated by summing the potential inhalation and noninhalation cancer risks for the receptor location of interest. See the discussion of Tier 1 in Section 8.2.6 or the TSD for more information on the method used to determine the multipathway cancer risk.

### 8.2.8 Cancer Risk Characterization for Stochastic Risk Assessment

Risk characterization for a stochastic risk assessment is similar to that described for the point-estimate approach. However, the stochastic risk assessment produces a distribution of risk that accounts for some of the natural variability in exposure-related factors, such as breathing rates or water intake. The cancer risk distribution for inhalation cancer risk, for example, is generated by multiplying randomly selected values from the breathing rate distribution by the ground level air concentration, and the cancer potency factor. A variation of the Monte Carlo method called Latin hypercube sampling is the method by which the values from the breathing rate distribution are

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selected. If noninhalation pathways need to be evaluated, the same process is followed for each pathway and the risk is summed to give an overall inhalation and noninhalation cancer risk distribution. Further, the specification of Age Sensitivity Factors and the need to separately calculate risks require that a Monte Carlo sampling be conducted for each age group and the cancer risk distributions are then summed across age groups.

The HARP software will perform an HRA using a Monte Carlo analysis with either OEHHA-provided or user-provided data distributions and will include the statistics for the distributions. In risk assessments that have chosen to use the distribution of exposure variates, the cancer risk distribution for a 30-year residential exposure duration (MEIR) should be presented in the risk characterization section. We also recommend including the 9 and 70-year cancer risk at the MEIR as supplemental information. Note that a 70-year exposure duration is required to estimate cancer burden or provide an estimate of population-wide risk. A stochastic approach has not been developed for acute, 8-hour, and chronic noncancer health impacts or worker (MEIW) exposures.

#### 8.2.9 Use of Individual Cancer Risk and Population-wide Cancer Risk

Cancer risk for an individual receptor and a representation of population-wide cancer risk are both important components of a risk assessment. The individual receptor approach reflects the exposures that may occur to an individual receptor over a period of time at a specific location. The individual cancer risk approach has some inherent limitations in terms of illustrating and potentially protecting population-based public health. For example, a facility with a small emissions footprint may impact a few individuals with a high individual potential cancer risk; whereas, a facility with a larger emission footprint may have a lower potential cancer risk for an individual receptor but expose many more people to those levels. Since this larger emitting facility can impact many more people, the population-wide health impacts are magnified due to the larger number of people exposed to the facility's emissions. This potential for higher population impacts is not captured by the individual receptor risk methodology. Therefore, the individual and population-wide health impacts should be presented for all facilities to provide a more complete illustration of the facility's health impacts.

##### 8.2.9.1 Population Risk

For facilities with large emission footprints (e.g., refineries, ports, or rail yards, etc.), population-based health impacts are critical to provide a better illustration of the potential impacts of emissions since large numbers of people may be exposed to the emissions. The individual cancer risk approach has some inherent limitations in terms of protecting public health. A small facility with a single stack can impact a few individuals with an individual cancer risk that is unacceptable, whereas a large facility may have an individual cancer risk that is below the acceptable limit for individual risk but exposes many more people. Thus, the population-wide impacts are larger for the large facility. Population-wide risk is independent of individual risk, and assumes that a population (not necessarily the same individuals) will live in the impacted zone over a

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70-year period. Thus, a 70-year exposure duration is required for estimates of population-wide risks.

To evaluate population risk, one method that regulatory agencies have used is the cancer burden method to account for the number of excess cancer cases that could occur in a population.

#### Cancer Burden

The cancer burden can be calculated by multiplying the cancer risk at a census block centroid by the number of people who live in the census block, and adding up the estimated number of potential cancer cases across the zone of impact. The result of this calculation is a single number that is intended to estimate the number of potential cancer cases within the population that was exposed to the emissions for a lifetime (70 years).

The cancer burden is calculated on the basis of lifetime (70-year) risks (whereas individual cancer risk at the MEIR is based on 30-year residential exposure). Cancer burden is independent of how many people move in or out of the vicinity of an individual facility. For example, if 10,000 people are exposed to a carcinogen at a concentration with a  $1 \times 10^{-5}$  cancer risk for a lifetime the cancer burden is 0.1, and if 100,000 people are exposed to a  $1 \times 10^{-5}$  risk the cancer burden is 1.

#### Estimate of Population Wide Risk

An estimate of the number of people exposed at various cancer risk levels can provide perspective on the magnitude of the potential public health threat posed by a facility. This approach is intended as a replacement for or addition to the cancer burden calculation used by some Districts in the past. The new approach provides a much easier way for the general public to interpret results when compared to cancer burden estimates. A facility in a sparsely populated area can have a public health impact different from the same facility in a highly populated area; however, under the cancer burden method, those differences may not be seen. Some suggested approaches and methods for performance of a screening or refined population exposure analyses are provided in Section 4.6.

The District or reviewing authority should be consulted before beginning the population exposure estimates and, as results are generated, further consultation may be necessary. Note that a 70-year exposure duration is required to estimate cancer burden or provide an estimate of population-wide risk.

The zone of impact for estimating the number of persons exposed to a cancer risk from facility emissions should be set at a minimum of a  $10^{-5}$  cancer risk level (see Section 4.6.1). Some Districts may prefer to use a cancer risk of  $10^{-7}$  to define the carcinogenic zone of impact. The total number of persons exposed to a series of potential risk levels can be presented to aid risk managers in understanding the magnitude of the potential public health impacts.

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The HARP software can provide population-level risk estimates as cancer burden or as the number of persons exposed to a selected (user-identified) cancer risk level at block level centroids.

#### 8.2.9.2 Population Estimates for Noncancer Health Impacts

A noncancer chronic, 8-hour, and acute population estimate of the number of people exposed to acute, 8-hour, and chronic HQs or HIs exceeding 0.5 or 1.0, in increments of 1.0, should also be presented. For example, a facility with a maximum chronic HI of 4.0 would present the number of people exposed to a chronic HI of 0.5, 1.0, 2.0, 3.0, and 4.0. The isopleths used in this determination should be drawn using the smallest feasible grid size. The same methods that are described in Chapter 4 and Section 8.2.9 (for the population exposure estimate for cancer risk) should be used in the chronic, 8-hour and acute population estimates. Population estimates for acute, 8-hour, and chronic health impacts should be presented separately.

#### 8.2.9.3 Factors That Can Impact Population Risk – Cumulative Impacts

Although the Hot Spots program is designed to address the impacts of single facilities and not aggregate or cumulative impacts, there are a number of known factors that influence the susceptibility of the exposed population and thus may influence population risk. Socioeconomic status influences access to health care, nutrition, and outcome after cancer diagnosis. Community unemployment can affect exposure and residency time near a facility. Factors that affect the vulnerability of the population are discussed in the report *Cumulative Impacts: Building a Scientific Foundation* (OEHHA, 2010). Information on many of these factors is relatively easy to obtain at the census tract level. The OEHHA recommends that these types of factors be considered by the risk manager, along with the quantitative measures of population risk. OEHHA is in the process of developing guidance on quantification of the impact of these factors.

#### 8.2.10 Cancer Risk Evaluation of Short Term Projects

The local air pollution control districts sometimes use the risk assessment guidelines for the Hot Spots program in permitting decisions for short-term projects such as construction or waste site remediation. Frequently, the issue of how to address cancer risks from short-term projects arises.

Cancer potency factors are based on animal lifetime studies or worker studies where there is long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from projects that will only last a small fraction of a lifetime. There are some studies indicating that dose rate changes the potency of a given dose of a carcinogenic chemical. In others words, a dose delivered over a short time period may have a different potency than the same dose delivered over a lifetime.

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The OEHHA's evaluation of the impact of early-in-life exposure has reduced some of the uncertainty in evaluating the cancer risk to the general population for shorter-term exposures, as it helps account for susceptibility to carcinogens by age at exposure (OEHHA, 2009).

Due to the uncertainty in assessing cancer risk from very short-term exposures, we do not recommend assessing cancer risk for projects lasting less than two months at the MEIR. We recommend that exposure from projects longer than 2 months but less than 6 months be assumed to last 6 months (e.g., a 2-month project would be evaluated as if it lasted 6 months). Exposure from projects lasting more than 6 months should be evaluated for the duration of the project. In all cases, for assessing risk to residential receptors, the exposure should be assumed to start in the third trimester to allow for the use of the ASFs (OEHHA, 2009). Thus, for example, if the District is evaluating a proposed 5-year mitigation project at a hazardous waste site, the cancer risks for the residents would be calculated based on exposures starting in the third trimester through the first five years of life.

For the MEIW, we recommend using the same minimum exposure requirements used for the residential receptor (i.e., no evaluation for projects less than 2 months; projects longer than 2 months but less than 6 months are assumed to last 6 months; projects longer than 6 months would be evaluated for the duration of the project). Although the off-site worker scenario assumes that the workers are 16 years of age or older with an Age-Sensitivity Factor of 1, another risk management consideration for short-term project cancer assessment is whether there are women of child bearing age at the worksite and whether the MEIW receptor has a daycare center. In this case, the Districts may wish to treat the off-site MEIW in the same way as the residential scenario to account for the higher susceptibility during the third trimester of pregnancy, and for higher susceptibility of infants and children.

Finally, the risk manager may want to consider a lower cancer risk threshold for risk management for very short-term projects. Typical District guidelines for evaluating risk management of Hot Spots facilities range around a cancer risk of 1 per 100,000 exposed persons as a trigger for risk management. Permitting thresholds also vary for each District. There is valid scientific concern that the rate of exposure may influence the risk – in other words, a higher exposure to a carcinogen over a short period of time may be a greater risk than the same total exposure spread over a much longer time period. In addition, it is inappropriate from a public health perspective to allow a lifetime acceptable risk to accrue in a short period of time (e.g., a very high exposure to a carcinogen over a short period of time resulting in a  $1 \times 10^{-5}$  cancer risk). Thus, consideration should be given for very short term projects to using a lower cancer risk trigger for permitting decisions.



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#### 8.3 Noncancer Acute, 8-Hour, and Chronic Inhalation Health Impacts – the Hazard Index Approach

All substances in the Hot Spots Program that have noncancer health impacts at a receptor must be evaluated through the inhalation pathway. Estimates of noncancer inhalation health impacts are determined by dividing an airborne concentration at the receptor by the appropriate Reference Exposure Level (REL). This is termed the Hazard Index Approach. A REL is used as an indicator of potential noncancer health impacts and is defined as the concentration at which no adverse noncancer health effects are anticipated. When a health impact calculation is performed for a single substance, then it is called the hazard quotient (HQ). Each REL for a substance will have one or more target organ systems (e.g., respiratory system, nervous system, etc.) where the substance can have a noncancer health impact. Thus, all HQs have specified target organ systems associated with them. The sum of the Hazard Quotients of all chemicals emitted that impact the same target organ is termed the Hazard Index. Inhalation RELs for noncancer health impacts have been developed for acute, 8-hour, and chronic exposures to a number of Hot Spots substances. Acute RELs are designed to protect against the maximum 1-hour ground level concentration at the receptor. Eight-hour RELs are designed to protect people with daily 8-hour schedules, such as offsite workers, in an impacted zone. The 8-hour RELs should be used for typical daily work shifts of 8-9 hours. For further questions, assessors should contact OEHHHA, the District, or reviewing authority to determine if the 8-hour RELs should be used in your HRA. Any discussions or directions to exclude the 8-hour REL evaluation should be documented in the HRA. Chronic RELs protect against long-term exposure to the annual average air concentration spread over 24 hours/day, 7 days/week.

OEHHHA has added 8-hour RELs to the set of noncancer RELs that were previously comprised of acute and chronic RELs (OEHHHA, 2008). Specifically, 8-hour RELs are air concentrations at or below which health impacts would not be expected even for sensitive subpopulations in the general population with repeated daily 8-hour exposures over a significant fraction of a lifetime. The 8-hour RELs can be used to evaluate the potential for health impacts (including effects of repeated exposures) in offsite workers, and to children and teachers exposed during school hours. Although not required in the HRA, they could also be applied by the Districts to a residential scenario where a facility operates only a portion of the day and exposure to residences is not adequately reflected by averaging concentrations over a 24 hour day. The number of chemicals with 8-hour RELs will increase as OEHHHA re-evaluates RELs for chemicals under SB-25 to ensure that they are protective of children's health.

Acute, 8-hour, and chronic RELs are needed because the dose metrics and even the health impact endpoints may be different with the different exposure durations of acute, daily 8-hour, and chronic exposures. Also, although chronic REL values are lower or set the same as 8-hour RELs, there are some cases such as special meteorological situations (e.g., significant diurnal-nocturnal meteorological differences) or intermittent exposures where the 8-hour REL may be more protective than the chronic REL.

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Chapter 4 describes air dispersion modeling and both Chapter 6 and Appendix L list the needed dose-response information to evaluate non-cancer hazards. Appendix I presents sample calculations for determining acute HQs and HIs, 8-hour HQs and HIs, and chronic multipathway HQs and HIs. Chapter 9 provides an outline of information required for risk characterization. The HARP software will calculate the HQ and HI for Hot Spots risk assessments.

#### 8.3.1 Calculation of Noncancer Inhalation Hazard Quotient and Hazard Index

To calculate the acute HQ, the maximum 1-hour ground level concentration (in  $\mu\text{g}/\text{m}^3$ ) of a substance at a receptor is divided by the acute 1-hour REL (in  $\mu\text{g}/\text{m}^3$ ) for the substance:

$$\text{Acute Hazard Quotient} = \frac{\text{1-Hour Max Concentration } (\mu\text{g}/\text{m}^3)}{\text{Acute REL } (\mu\text{g}/\text{m}^3)}$$

To calculate the chronic HQ, the annual average ground level concentration of a substance is divided by the chronic REL for the substance:

$$\text{Chronic Hazard Quotient} = \frac{\text{Annual Average Concentration } (\mu\text{g}/\text{m}^3)}{\text{Chronic REL } (\mu\text{g}/\text{m}^3)}$$

To calculate the 8-hour HQ, the adjusted annual average ground level concentration of a substance (represented as "Adjusted  $C_{\text{air}}$ " in EQ 5.4.1.4 A) is divided by the 8-hour REL for the substance:

$$\text{8-hour Hazard Quotient} = \frac{\text{Adjusted Annual Average Concentration } (\mu\text{g}/\text{m}^3)}{\text{8-hour REL } (\mu\text{g}/\text{m}^3)}$$

The daily 8-hour average ground level concentrations used for calculating the 8-hour HQs are derived as described in Chapter 4.

An HQ of 1.0 or less indicates that adverse health effects are not expected to result from exposure to emissions of that substance. As the HQ increases above one, the probability of human health effects increases by an undefined amount. However, it should be noted that a HQ above one is not necessarily indicative of health impacts due to the application of uncertainty factors in deriving the RELs.

If a receptor is exposed to multiple substances that target the same organ system, then the HQs for the individual substances are summed to obtain a Hazard Index (HI) for that target organ.

Table 8.8 is an example of an HRA spreadsheet showing acute inhalation HQs arranged by target organ system for several substances. The bottom row shows the summed HQs by target organ system to derive the HIs.



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**Table 8.8 Individual Hazard Quotients and Total Hazard Index for Acute Inhalation Exposure**

Substance	Reproductive/ Developmental	Nervous System	Cardiovascular System	Respiratory System	Eye
Ammonia				0.6	0.6
Arsenic	0.2	0.2	0.2		
Benzene	0.02				
Chlorine				0.7	0.7
<b>Total Hazard Index</b>	<b>0.22</b>	<b>0.2</b>	<b>0.2</b>	<b>1.3</b>	<b>1.3</b>

A more detailed example of calculating HQs and HIs and of determining noncancer health impacts is shown in Appendix I.

Hazard quotients or HIs for different target organs are not summed together (e.g., do not add the impacts for the eye to the cardiovascular system). Chapter 6 and Appendix L have lists of the organ systems affected by each substance. Unlike the cancer risk algorithms, no exposure duration adjustment (e.g., 9 yrs / 70 yrs) should be made for noncancer assessments.

There are limitations to this method of assessing cumulative noncancer health impacts. The impact on organ systems may not be additive if health effects occur by different mechanisms. However, the impact on organ systems could also be synergistic. An analysis by a trained health professional familiar with the substance's toxicological literature is usually needed to determine the public health significance of an HQ or HI above one. It is recommended that the Air District contact OEHHA if this situation presents itself. For assessing the noncancer health impacts of lead, different procedures are used; please see Appendix F.

### 8.3.2 Calculating Noninhalation (oral) Noncancer Hazard Quotient and Hazard Index

Similar to the situation with multipathway carcinogenic substances, multipathway substances that present a noncancer hazard are assessed by noninhalation routes of exposure (see Table 8.6). Noninhalation routes of exposure are assessed only for chronic exposure. There are no oral acute RELs since it is generally anticipated that health effects from a single exposure via the oral route at typical environmental levels resulting from deposition of facility emissions would be insignificant relative to the inhalation route. The multipathway substances with noninhalation RELs, called chronic oral RELs, are shown in Table 6.4. Similar to inhalation exposure, the hazard quotient

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for a noninhalation pathway is obtained by dividing the dose in milligrams per kilogram-day (mg/kg-day) by the oral REL also expressed in units of mg/kg-day:

$$\text{Chronic Non-inhalation HQ} = \frac{\text{Chronic Noninhalation Dose (mg/kg-day)}}{\text{Chronic Oral REL (mg/kg-day)}}$$

The calculated chronic oral HQs are combined with the chronic inhalation HQs for determining the chronic HIs for each affected target organ (see Section 8.3.4). The point estimates and algorithms for calculating the oral dose for all applicable exposure pathways and receptors (e.g., workers or residents) are explained in Chapter 5.

The chronic oral dose calculated in mg/kg-day is based on a time-weighted average 70-year residential exposure combining the 0<2, 2<16 and 16-70 year age groups. Unlike the assessment of cancer risk, no exposure duration adjustment should be made when estimating HQs. In other words, the variates ED and AT in the cancer risk EQ 8.2.5 in Section 8.2.5 are not used for estimating the noncancer HQs. See Appendix I for an example calculation.

### 8.3.3 Multipathway Noncancer Risk Methodology

To determine multipathway chronic noncancer health impacts, it is necessary to calculate the total hazard index from both inhalation and noninhalation exposures. The calculation of HIs has several steps:

- 1) First, the inhalation HQ is calculated for each substance emitted (Section 8.3.1).
- 2) Second, if the substance has an oral REL, then the non-inhalation HQ is calculated as shown above using high-end point-estimates for intake rates for each noninhalation pathway that applies.
- 3) Third, if there are more than two noninhalation pathways to consider for a multipathway substance, then the oral HQ is calculated using high-end point estimates in the dose equation for the two dominant pathways. For any additional noninhalation pathways, the HQs are calculated using average point estimates in the dose equation. This step applies only to residential receptors.
- 4) Fourth, all noninhalation pathway HQs for a multipathway substance are then summed together by target organ to obtain the total noninhalation HQ for a multipathway substance.
- 5) The final step is to sum the inhalation and noninhalation HQs together by target organ to determine the HIs. This step is displayed in Table 8.9. If there is only one substance, then the multipathway HQ is the same as the HI.



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**Table 8.9 Substance-Specific Chronic Inhalation and Noninhalation Hazard Quotients and the Hazard Index by Target Organ System**

Substance	Respiratory System	Hematologic System	Alimentary System	Endocrine System	Development	Reproductive System	Nervous System	Cardiovascular System	Skin
Ammonia	0.8								
Arsenic					0.04(i) 0.1(ni)		0.04(i) 0.1(ni)	0.04(i) 0.1(ni)	0.04(i) 0.1(ni)
Benzene		0.08			0.08		0.08		
2,3,7,8-TCDD (dioxin)	0.1(i) 0.2(ni)	0.1(i) 0.2(ni)	0.1(i) 0.2(ni)	0.1(i) 0.2(ni)	0.1(i) 0.2(ni)	0.1(i) 0.2(ni)			
Nickel	0.4(i)	0.4(i)	0.1(ni)						
<b>Hazard Index</b>	<b>1.50</b>	<b>0.78</b>	<b>0.40</b>	<b>0.3</b>	<b>0.52</b>	<b>0.30</b>	<b>0.22</b>	<b>0.14</b>	<b>0.14</b>

i = inhalation pathway contribution

ni = noninhalation pathway contribution

Table 8.9 shows the calculated chronic HIs by combining the chronic inhalation HQs and chronic oral HQs. The HQs or HIs for different target organs are not added together (e.g., do not add the impacts for the respiratory system to the nervous system). The noninhalation pathways for TCDD and arsenic in Table 8.9 have all the noninhalation pathways that apply incorporated into their HQ values. For example, the noninhalation value for arsenic (HQs = 0.1) includes at least the soil ingestion and dermal soil pathways in the HQs because these are the mandatory noninhalation pathways to take into account with exposure to a multipathway substance. For TCDD, the mother's milk pathway is an additional mandatory noninhalation pathway to take into account (See Table 5.1). If there are exposures to any of the site-specific pathways, then these would be included too. A more detailed example calculation of HIs is shown in Appendix I.

When exposure to more than two noninhalation pathways occur, using the high-end point estimates of intake rates for only the two dominant noninhalation pathways will lessen the issue of compounding high-end exposure estimates, while retaining a health-protective approach for the more important exposure pathways. It is unlikely that an individual receptor would be on the high-end of exposure for all the non-inhalation intake parameters (exposure pathways).

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### 8.3.4 Summary - Acute, 8-Hour and Chronic Hazard Index Calculation at the MEIR and MEIW

Eight-hour RELs were developed principally for exposure of individuals during 8-hour work schedules. The 8-hour RELs should be used for typical daily work shifts of 8-9 hours. For further questions, assessors should contact OEHA, the District, or reviewing authority to determine if the 8-hour RELs should be used in your HRA. Any discussions or directions to exclude the 8-hour REL evaluation should be documented in the HRA. There are currently only a limited number of substances with an 8-hour inhalation REL. Over time as the science supporting REL values for individual substances is reviewed and the RELs are revised by OEHA, more 8-hour RELs will be developed.

Therefore, for the MEIR, we recommend:

- Estimating the acute Hazard Index based on the maximum 1-hour air concentration and 1-hour RELs
- Estimating the chronic Hazard Index based on the annual average air concentration and the chronic RELs, and the oral RELs for multipathway substances

An 8-hour hazard index based on the daily average 8-hour exposure is not required for the MEIR, but can be performed at the discretion of the District for exposure to non-continuously operating facilities using the adjusted annual average air concentration (See EQ 5.4.1.4 A and B or method in App. M). Eight-hour hazard assessments are not recommended for exposure to continuously operating facilities.

For the MEIW, we recommend:

- Estimating the acute Hazard Index based on the maximum 1-hour air concentration and 1-hour RELs
- Estimating the 8-hour Hazard Index based on daily average 8-hour exposure for those chemicals with 8-hour RELs
- Estimating the chronic Hazard Index based on the annual average air concentration and chronic RELs, and oral RELs for multipathway substances

Until there are 8-hour RELs for many of the Hot Spots substances that have a chronic REL value, we recommend determining the chronic HI for the MEIW to adequately protect the offsite worker.

### 8.3.5 Evaluation of Background Criteria Pollutants

The District should be contacted to determine if the contribution of background criteria pollutants to respiratory health effects is required to be included in an HRA for the Hot Spots Program. If inclusion is required, the methods for calculating the health impact from acute and chronic exposure (respiratory endpoint) is the standard HI approach (see Sections 8.3.1 and 8.3.4). There are currently no 8-hour RELs for criteria



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pollutants, so 8-hour health impacts from criteria pollutants are not assessed in HRAs. The background criteria pollutant contribution should be calculated if the HI from the facility's emissions exceeds 0.5 in either the acute or chronic assessment for the respiratory endpoint.

The most recent criteria pollutant concentration data should be obtained from the ARB's ambient air monitoring network and can be found in the *California Almanac of Emissions and Air Quality* on their web site at [www.arb.ca.gov](http://www.arb.ca.gov). For determining the criteria pollutant contribution in HI calculations, the annual average concentration data should be taken from a monitoring site near the facility. If background contributions are unavailable, the District may direct the risk assessor to make an alternative assumption. The criteria pollutants that should be included in acute and chronic assessments for the respiratory endpoint are ozone, nitrogen dioxide, sulfur dioxide, sulfates, and hydrogen sulfide.

#### 8.4 Uses of Exposure Duration Adjustments for Onsite Receptors

Onsite workers are protected by CAL OSHA and typically are not evaluated under the Hot Spots program. Exceptions may include a worker who also lives on the facility property such as at prisons, military bases, and universities that have worker housing within the facility. Another scenario where the District may require assessment of on-site worker exposure and risk is when a facility (e.g., airport) has multiple businesses owned by different entities within the facility/property (e.g., rental car agencies, restaurants, etc.). In these situations the evaluation of onsite cancer risks, and/or acute, 8-hour, and chronic noncancer hazard indices is appropriate under the Hot Spots program. If the onsite receptor under evaluation can be exposed through a noninhalation exposure pathway, then that exposure pathway must also be included. When a receptor lives and works on the facility, site, or property, then these receptors should be evaluated and reported under both residential and worker scenarios and the one that is most health-protective should be used for risk management decisions.

The cancer risk estimates for the on-site residents may use a 30-year exposure duration while the 25-year exposure duration is used for a worker. Under a Tier 2 analysis, alternate exposure durations may be evaluated and presented with all assumptions supported. See section 8.2.10 for more discussion of short-term exposures.

Other situations that may require on-site receptor assessment include the presence of locations where the public may have regular access for the appropriate exposure period (e.g., a lunchtime café, store, or museum for acute exposures). The District or reviewing authority should be consulted on the appropriate evaluations for the risk for all onsite receptors.

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#### 8.5 References

ERG, 2008. Summary Report of the Peer Review Meeting: EPA's Draft Framework for Determining a Mutagenic Mode of Action for Carcinogenicity. Final Report. Submitted to Risk Assessment Forum, Office of the Science Advisor, U.S. Environmental Protection Agency, Washington, DC., by Eastern Research Group. May 23, 2008.

OEHHA, 2010. *Cumulative Impacts: Building a Scientific Foundation*. Available online at: <http://www.oehha.ca.gov>

OEHHA, 2008. *Air Toxics Hot Spots Program Risk Assessment Guidelines*. Technical Support Document for Deriving Noncancer Reference Exposure Levels. Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. Available online at: <http://www.oehha.ca.gov>

OEHHA, 2009. *Air Toxics Hot Spots Program Risk Assessment Guidelines. Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures*. Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. May 2009. Available online at: <http://www.oehha.ca.gov>

OEHHA, 2012. *Air Toxics Hot Spots Program Risk Assessment Guidelines; Technical Support Document for Exposure Assessment and Stochastic Analysis*. Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. Available online at <http://www.oehha.ca.gov>

U.S. EPA, 2005a. Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens. EPA/630/R-03/003F March 2005.

U.S.EPA, 2005b. Guidelines for Carcinogen Risk Assessment. Risk Assessment Forum, Washington, DC. EPA/630/P-03/001F.



## 9 - Summary of the Requirements for a Modeling Protocol and a Health Risk Assessment Report

The AB 2588 program is a community right-to-know act. Although risk assessment is a technical field, AB 2588 risk assessments need to be clear and understandable to the educated lay person. An Executive Summary that explains the process and the results of the risk assessment in lay terms is necessary. Clear risk communication is imperative in situations where the facility is required to notify the surrounding community. In addition, the risk assessment is by law reviewed by the local Air Pollution Control or Air Quality Management District (District) and OEHHA in order to ensure that AB 2588 risk assessment procedures have been followed. This chapter clarifies the type of information that is needed for District and OEHHA review of modeling protocols and health risk assessments (HRAs).

The material presented here is intended to promote transparent, consistent presentation and efficient review of the modeling protocol and the health risk assessment report (products). We recommend that persons preparing these products consult with the local District to determine if the District has modeling or HRA guidelines that supersede these products. If the District does not have guidelines for these products, then we recommend Section 9.1 be used for modeling protocols and Section 9.2 be used for the presentation of HRAs. Persons preparing modeling protocols and HRAs should specify the guidelines that were used to prepare their products.

### 9.1 Submittal of a Modeling Protocol

It is strongly recommended that a modeling protocol be submitted to the District for review and approval prior to extensive analysis with an air dispersion model. The modeling protocol is a plan of the steps to be taken during the air dispersion modeling and risk assessment process. We encourage people who are preparing protocols to take advantage of the protocol step and fully discuss anticipated methodologies for any portion of your project that may need special consideration. Below, we have provided an example of the format that may be followed in the preparation of the modeling protocol. **Consult with the District to confirm format and content requirements or to determine the availability of District modeling guidelines before submitting the protocol.**

### 9.1.1 Outline for a Modeling Protocol

#### I. Introduction

Include the facility name, address, and a brief overview describing the facility's operations.

- Provide a description of the terrain and topography surrounding the facility and potential receptors.
- Indicate the format in which data will be provided. Ideally, the report and summary of data will be on paper and all data and model input and output files will be provided electronically (e.g., compact disk or CD).
- Identify the guidelines used to prepare the protocol (e.g., District Guidelines).

#### II. Emissions

**For each pollutant and process whose emissions are required to be quantified in the HRA, list the annual average emissions (pounds/year and grams/second) and the maximum one-hour emissions (pounds/hour and grams/second)<sup>1</sup>. Maximum 1-hour emissions are used for acute noncancer health impacts while annual emissions are used for chronic exposures (i.e., chronic and 8-hour noncancer health impacts or cancer risk assessment).**

- Identify the reference and method(s) used to determine emissions (e.g., source tests, emission factors, etc.). Clearly indicate any emission data that are not reflected in the previously submitted emission inventory report. In this event, a revised emission inventory report will need to be submitted to the District.
- Identify if this will be a multipathway assessment based on emitted substances.

<sup>1</sup> Except radionuclides, for which annual and hourly emissions are reported in Curies/year and millicuries/hour, respectively.



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#### III. Models / Modeling Assumptions

##### **Specify the model and modeling assumptions**

- Identify the model(s) to be used, including the version number.
- Identify the model options that will be used in the analysis.
- Identify the modeling domain(s) and the spacing of receptor grid(s). Grid spacing should be sufficient in number and detail to capture the concentration at all of the receptors of interest.
- Indicate complex terrain options that may be used, if applicable.
- Identify the source type(s) that will be used to represent the facility's operations (e.g., point, area, or volume sources, flare options or other).
- Indicate the preliminary source characteristics (e.g., stack height, gas temperature, exit velocity, dimensions of volume source, etc.).
- Identify and support the use of urban or rural dispersion coefficients for those models that require dispersion coefficients. For other models, identify and support the parameters required to characterize the atmospheric dispersion due to land characteristics (e.g., surface roughness, Monin-Obukhov length).

#### IV. Meteorological Data

##### **Specify the type, source, and year(s) of hourly meteorological data (e.g., hourly surface data, upper air mixing height information).**

- State how the data are representative for the facility site.
- Describe QA/QC procedures.
- Identify any gaps in the data; if gaps exist, describe how the data gaps are filled.

#### V. Deposition

- Specify the method to calculate deposition (if applicable).

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#### VI. Receptors

##### **Specify the type and location of receptors. Include all relevant information describing how the individual and population-related receptors will be evaluated.**

- Identify and describe the location(s) of known or anticipated potential sensitive receptors, the point of maximum impact (PMI), the maximum exposed individual residential (MEIR), and worker (MEIW) receptors. Identify any special considerations or grids that will be used to model these receptors. This information should correspond with information provided in Section III (e.g., fine receptor spacing of 20 meters at the fence line and centered on the maximum impacts; coarse receptor spacing of 100 meters out to 2,000 meters; extra coarse spacing of 1,000 meters out to 20,000 meters).
- Identify if spatial averaging will be used. Include necessary background information on each receptor including how the domain and spacing will be determined for each receptor or exposure pathway.
- Describe how the cancer burden or population impact estimates are calculated. Clarify the same information for the presentation of noncancer population impacts (e.g., centroids of the census tracts in the area within the zone of impact).
- Specify that actual UTM coordinates and the block/street locations (i.e., north side of 3,000 block of Smith Street), where possible, will be provided for specified receptor locations.
- Identify and support the use of any exposure adjustments (e.g., time at location, diurnal).
- Include the list of anticipated exposure pathways that will be included and indicate which substance will be evaluated in the multipathway assessment. Identify if sensitive receptors are present and which receptors will be evaluated in the HRA.

#### VII. Maps

##### **Identify how the information will be graphically presented.**

- Indicate which cancer risk isopleths will be plotted for the cancer zone of impact (e.g.,  $10^{-7}$ ,  $10^{-6}$  see Section 4.6.1).
- Indicate the hazard quotients or hazard indices to be plotted for the noncancer acute, 8 hour, and chronic zones of impact (e.g., 0.5, 1.0, etc.).

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#### 9.2 Health Risk Assessment Report

The purpose of this section is to provide an outline to assist with the preparation and review of HRAs. This outline specifies the key components that should be included in HRAs. All information used for the report must be presented in the HRA. Ideally, the HRA report and a summary of data used in the HRA will be on paper and all data and model input and output files will be provided electronically (e.g., CD). Persons preparing HRAs for the Hot Spots Program should consult the District to determine if HRA guidelines or special formats are to be followed when preparing and presenting the HRA's results.

If District guidelines or formats do not exist that supersede this outline, then the HRA should follow the format presented here. If the HRA is prepared for other programs, the reviewing authority should be consulted for clarification of format and content. We recommend that those persons preparing HRAs specify the guidelines that were used to prepare their product. **The HRA may be considered deficient by the reviewing authority if components that are listed here are not included.**

##### 9.2.1 Outline for the Health Risk Assessment Report

###### I. Table of Contents

- Section headings with page numbers indicated.
- Tables of tables and Table of figures with page numbers indicated.
- Appendices with page numbers indicated.

###### II. Executive Summary

###### Overview of all relevant information regarding the project or facility.

- Facility identifier number (consult the District).
- Description of facility operations and a list identifying emitted substances including table of maximum 1-hour emissions, and annual average emissions.
- Provide a brief description of acute, 8-hour, chronic, and cancer health impacts of the emitted substances, based on OEHHA's descriptions in the appropriate Technical Support Documents.
- Text presenting overview of dispersion modeling and exposure assessment.
- Text describing estimated cancer risk for carcinogens, noncancer Hazard Quotients and Hazard Indices and a table showing target organ systems by substance for noncancer impacts.

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- Summarize the individual and population-wide health impacts including the driving substance(s) and the driving exposure pathways:
  - Location (block/street location; e.g., north side of 3,000 block of Smith Street) and description of the off-site point of maximum impact (PMI), maximum exposed individual resident (MEIR), and maximum exposed individual worker (MEIW).
  - Location (block/street location; e.g., north side of 3,000 block of Smith Street) and description of any on-site receptors that were evaluated at the facility (consult District or agency).
  - Location (block/street location; e.g., north side of 3,000 block of Smith Street) and description of any sensitive receptors that are required by the district or reviewing authorities (consult District or agency).

**NOTE: When presenting information described in the following bullets, cancer risk should be presented separately for a residential 30-year, Tier-1 analysis. Results of other exposure assumptions (e.g., 9 or 70-year) or other tier evaluations should also be presented, and must be clearly labeled. For the Hot Spots Program, while the 30-year exposure duration is recommended as the basis for public notification and risk reduction audits and plans, the District has discretion to use the 70 year exposure scenario for its decisions. In addition, the 70 year cancer risk must be calculated to estimate population-wide impacts.**

- Text presenting an overview of the total cancer risk (including multipathway substances, if present) at the PMI, MEIR, MEIW, and sensitive receptors. Provide a table of cancer risk by substance for the MEIR and MEIW (if applicable). Include a statement indicating which of the substances appear to contribute most to (drive) the potential health impacts. In addition, identify the exposure pathways evaluated in the HRA.
- Provide a map of the facility and surroundings and identify the location of the MEIR, MEIW, PMI, and other locations or receptors of interest.
- Provide a map of 30-year and 70-year cancer risk zone of impact(s), if applicable.
- Text presenting an overview of the acute and chronic noncancer hazard quotients and the (total) hazard indices for the PMI, MEIR, MEIW, and sensitive receptors. Additionally, include 8-hour hazard quotients and hazard indices for the MEIW. Include separate statements (for acute, 8-hour, and chronic exposures) indicating which

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of the substances appear to drive the potential health impacts. In addition, clearly identify the primary target organ(s) that are impacted from acute, 8-hour, and chronic exposures.

- Identify any sensitive subpopulations (e.g., child daycare facilities, schools, nursing homes) of concern.
- Table and text presenting an overview of estimates of population exposure (e.g., cancer burden or population estimates from HARP) (consult District or agency) (see Section 8.4).
- Version of the Risk Assessment Guidelines and computer program(s) used to prepare the risk assessment (e.g., HARP).

### III. Risk Assessment Procedures

#### A. Hazard identification

- Table and text identifying all substances emitted from the facility, plus any other substances required by the District or reviewing authority. Include the CAS number of the substance and the physical form of the substance if possible. [The Hot Spots substances are listed in Appendix A, and also in the ARB's Emission Inventory Criteria and Guidelines Regulations (Title 17, California Code of Regulations, Sections 93300-93300.5), and the Emission Inventory Criteria and Guidelines Report (EICG Report), which is incorporated by reference therein (ARB, 1997)].
- Table and text identifying all substances that are evaluated for cancer risk and/or noncancer acute, 8-hour, and chronic health impacts. In addition, identify any multipathway substances that present a cancer risk or chronic noncancer hazard via noninhalation routes of exposure.
- Describe the types and amounts of continuous or intermittent predictable emissions from the facility that occurred during the reporting year. As required by statute, releases from a facility include spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping (fugitive), leaching, dumping, or disposing of a substance into ambient air. Include the substance(s) released and a description of the processes that resulted in long-term and continuous releases.

#### B. Exposure Assessment

This section describes the information related to the air dispersion modeling process that needs to be reported in the risk assessment; the information is also presented in Chapter 4 (see Section 4.15). The District may have specific requirements regarding format and content (see Section 4.14). Sample calculations should be provided at each step to indicate how reported emissions

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data were used. Reviewing agencies must receive input, output, and supporting files of various model analyses on computer-readable media (e.g., CD).

#### 1. Information on the Facility and its Surroundings

Report the following information regarding the facility and its surroundings:

- Facility Name
- Location (UTM coordinates and street address)
- Land use type (see Section 2.4)
- Local topography
- Facility plot plan identifying:
  - source locations
  - property line
  - horizontal scale
  - building heights
  - emission sources

#### 2. Source and Emission Inventory Information

##### a. Release Parameters

Report the following information for each release location in table format:

- Release location identification number
- Release name
- Release type (e.g., point, volume, area, line, pit, etc.)
- Source identification number(s) used by the facility for sources that emit out of this release location
- Release location using UTM coordinates
- Release parameters by release type (e.g., shown for point source):
- Stack height (m), stack diameter (building dimensions for downwash, exhaust gas exit velocity (m/s), exhaust gas volumetric flow rate (ACFM), exhaust gas exit temperature (K), etc.

##### b. Source Description and Operating Schedule

The description and operating schedule for each source should be reported in table form including the following information:

- Source identification number used by the facility
- Source name
- Number of operating hours per day and per year (e.g., 0800-1700, 2700 hr/yr)
- Number of operating days per week (e.g., Mon-Sat)

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- Number of operating days or weeks per year (e.g., 52 wk/yr excluding major holidays)
- Release point identification number(s) for where source emissions are released
- Fraction of source emissions emitted at each release point by release point ID number

#### c. Emission Control Equipment and Efficiency

- Report emission control equipment and efficiency by source and by substance

#### d. Emissions Data Grouped By Source

Report emission rates for each toxic substance, grouped by source (i.e., emitting device or process identified in Inventory Report), in table form including the following information:

- Source name
- Source identification number
- Substance name and CAS number (from Inventory Guidelines)
- Annual average emissions for each substance (lb/yr)
- Hourly maximum emissions for each substance (lb/hr)

#### e. Emissions Data Grouped by Substance

Report facility total emission rate by substance for all emitted substances listed in the Air Toxics "Hot Spots" Program including the following information:

- Substance name and CAS number (from Inventory Guidelines)
- Annual average emissions for each substance (lb/yr)
- Hourly maximum emissions for each substance (lb/hr)

#### f. Emission Estimation Methods

Report the methods used in obtaining the emissions data indicating whether emissions were measured or estimated. Clearly indicate any emission data that are not reflected in the previously submitted emission inventory report and submit a revised emission inventory report to the district. A reader should be able to reproduce the risk assessment without the need for clarification.

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#### g. List of Substances

Include tables listing all "Hot Spots" Program substances which are emitted, plus any other substances required by the District. Indicate substances to be evaluated for cancer risks and noncancer effects.

#### h. Exposed Population and Receptor Location

Report the following information regarding exposed population and receptor locations:

- Description of zone of impact including map showing the location of the facility, boundaries of zone of impact, census tracts, emission sources, sites of maximum exposure, and the location of all appropriate receptors. This should be a true map (one that shows roads, structures, etc.), drawn to scale, and not just a schematic drawing. USGS 7.5 minute maps or GIS based maps are usually the most appropriate choices. (If significant development has occurred since the user's survey, this should be indicated.)
- Separate maps for the cancer risk zone of impact and the hazard index (noncancer) zone of impact(s). The cancer zone of impact should include isopleths down to at least the 1/1,000,000 risk level. Because some districts use a level below 1/1,000,000 to define the zone of impact, the District should be consulted. For the noncancer zone of impact, three separate isopleths (to represent chronic, 8-hour, and acute HI) should be created to define the zone of impact for the hazard index from both inhalation and noninhalation pathways greater than or equal to 0.5. The point of maximum impact (PMI), maximum exposed individual at a residential receptor (MEIR), and maximum exposed individual worker (MEIW) for both cancer and noncancer risks should be located on the maps.
- Tables identifying population units and sensitive receptors (UTM coordinates, receptor IDs or index from the modeling, and street addresses of specified receptors)
- Heights or elevations of the receptor points.
- **Spatial averaging:** For each receptor type (e.g., PMI, MEIR, and MEIW, or other location of interest) that will utilize spatial averaging, the domain size and grid resolution must be clearly identified. If another domain or grid resolution other than 20 meters by 20 meters with 5-meter grid spacing will be used for a receptor, then care should be taken to determine the proper domain size and grid resolution that should be used. For a worker, the HRA shall support all assumptions used, including, but not limited to, documentation for all workers



showing the area where each worker routinely performs their duties. The final domain size should not be greater than the smallest area of worker movement. Other considerations for determining domain size and grid spacing resolution may include an evaluation of the concentration gradients across the worker area. The grid spacing used within the domain should be sufficient in number and detail to obtain a representative concentration across the area of interest. When spatial averaging over the deposition area of a pasture, garden, or water body, care should be taken to determine the proper domain size to make sure it includes all reasonable areas of potential deposition. The size and shape of the pasture, garden, or water body of interest should be identified and used for the modeling domain. The grid spacing or resolution used within the domain should be sufficient in detail to obtain a representative deposition concentration across the area of interest. One way to determine the grid resolution is to include an evaluation of the concentration gradients across the deposition area. The HRA shall support all assumptions used, including, but not limited to, documentation of the deposition area (e.g., size and shape of the pasture or water body, maps, representative coordinates, grid resolution, concentration gradients, etc.). The use or spatial averaging is subject to approval by the reviewing authority. This includes the size of the domain and grid resolution that is used for spatial averaging of a worksite or multipathway deposition area.

### 3. Meteorological Data

If meteorological data were not obtained directly from the District, then the report must clearly indicate the data source and time period used. Meteorological data not obtained from the District must be submitted in electronic form along with justification for their use including information regarding representativeness and quality assurance.

The risk assessment should indicate if the District required the use of a specified meteorological data set. All memos indicating the District's approval of meteorological data should be attached in an appendix.

### 4. Model Selection and Modeling Rationale

The report should include an explanation of the model chosen to perform the analysis and any other decisions made during the modeling process. The report should clearly indicate the name of the models that were used, the level of detail (screening or refined analysis) and the rationale behind the selection.

Also report the following information for each air dispersion model used:

- Version number
- Selected options and parameters in table form

- Identify the modeling domain(s) and the spacing of receptor grid(s). Grid spacing should be sufficient in number and detail to capture the concentration at all receptors of interest.

### 5. Air Dispersion Modeling Results

The report should include tables, text, and appendices that clearly present all of the following information

- Maximum hourly and annual average concentrations of chemicals at appropriate receptors such as the residential and worker MEI receptors
- Annual average and maximum one-hour (and 30-day average for lead only) concentrations of chemicals at appropriate receptors listed and referenced to computer printouts of model outputs
- Model printouts (numbered), annual concentrations, maximum hourly concentrations
- Disk with input/output files for air dispersion program (e.g., the AERMOD input file containing the regulatory options and emission parameters, receptor locations, meteorology, etc.)
- Include tables that summarize the annual average concentrations that are calculated for all the substances at each site. The use of tables that present the relative contribution of each emission point to the receptor concentration is recommended. (These tables should have clear reference to the computer model which generated the data. It should be made clear to any reader how data from the computer output were transferred to these tables.) [As an alternative, the above two tables could contain just the values for sites of maximum impact (i.e., PMI, MEIR and MEIW), and sensitive receptors, if required. All the values would be found in the Appendices.]

### C. Health Values Used in Dose-Response and Dose Estimates

- Provide tables of the acute, 8-hour and chronic inhalation RELs, chronic oral RELs (if applicable), and cancer potency factors for each substance that is quantified in the HRA.
- Identify the guidelines (title and date) that were used to obtain these factors, or indicate whether newly approved values obtained from the OEHHA website were used.
- Provide a table of target organ systems for each noncancer substance, including acute (1 hour), 8-hour, and chronic inhalation, and chronic oral (if applicable).



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- Include tables of the estimated dose for each substance by each exposure pathway at the PMI, MEIR, MEIW, and at any sensitive receptor locations (required by the District).

#### D. Risk Characterization

The Hot Spots Analysis and Reporting Program (HARP) will generate the risk characterization data needed for the outline below. Any data needed to support the risk characterization findings should be clearly presented and referenced in the text and appendices. A listing of HARP output files that meet these HRA requirements is provided in this outline under the section entitled "Appendices". All HARP files should be included in the HRA. Ideally, the HRA report and a summary of data used in the HRA will be on paper and all data and model input and output files will be provided electronically (e.g., CD). Information on obtaining copies of HARP is available on the California Air Resources Board's Internet web site under the Air Toxics Program at [www.arb.ca.gov](http://www.arb.ca.gov).

**NOTE:** The cancer risk for the PMI, MEIR, and sensitive receptors of interest must be presented in the HRA's text, tables, and maps. OEHHA recommends that cancer risk for a 30-year exposure duration be presented for the MEIR, and that cancer risk for 9-year and 70-year exposure durations for the MEIR be presented to provide the risk managers with supplemental information. Note that the assessment of population impacts must be based on a 70-year exposure duration; thus all risk assessments need to estimate cancer risk for a 70-year exposure duration in order to report the number of individuals residing in the risk isopleths, or to calculate cancer burden if the District so requires. In addition, some Districts may opt to make risk management decisions based on a 70-year exposure duration. The MEIW location should use a 25-year exposure period.

All HRAs must include the results of a Tier-1 exposure assessment (see Chapter 2 and 8, or the 2012 TSD). If the reviewing authority specifies that additional exposure periods should be presented, or if persons preparing the HRA would like to present additional information (i.e., exposure duration adjustments or the inclusions of risk characterizations using Tier-2 through Tier-4 exposure data), then this information should be presented in separate, clearly titled, sections, tables, and text.

***The following information should be presented in this section of the HRA. If not fully presented here, then by topic, clearly identify the section(s) and pages within the HRA where this information is presented.***

- Description of receptors to be quantified.
- Table and text providing the location [UTM coordinates, receptor ID number or index from the modeling, and the block/street address

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(e.g., north side of 3,000 block of Smith Street)] and description of the PMI, MEIR, and MEIW for both cancer and noncancer risks.

- Separate tables and text providing description of the PMI and MEIR for 30-year cancer risk, and 9- or 70-year cancer risk.
- Tables and text describing MEIW 25-year cancer risk.
- Table and text providing the location [UTM coordinates, receptor ID number or index from the modeling, and the block/street address (e.g., north side of 3,000 block of Smith Street)] and description of any sensitive receptor that is of interest to the District or reviewing authorities (consult District or agency).
- Provide any exposure information that is used for risk characterization (e.g., concentrations at receptors, emissions information, census information, figures, zone of impact maps, etc.). If multipathway substances are emitted, identify the site/route dependent exposure pathways (e.g., water ingestion) for the receptor(s), where appropriate (e.g., MEIR).
- Provide a summary of the site-specific inputs used for each exposure pathway (e.g., water or grazing intake assumptions). This information may be presented in an appendix with the information clearly presented and cross-referenced to the text. In addition, provide reference to the appendix (section and page number) that contains the modeling (i.e., HARP/dispersion modeling) files that show the same information.
- If any exposure parameters were used other than those provided in the Air Toxics Risk Assessment Guidelines: Technical Support Document for Exposure Assessment and Stochastic Analysis (2012), they must be presented in detail. The derivation and data used must be presented so that it is clear to the reviewer. The justification for using site-specific exposure parameters must be clearly presented.
- Table and text presenting the potential multipathway cancer risk by substance, by pathway, and total, at the PMI, MEIR, MEIW, and sensitive receptor locations (required by the District).
- Table and text presenting the acute (inhalation only) and chronic noncancer (inhalation and oral) hazard quotients (by substance, exposure pathways, and target organs) and the (total) hazard indices by substance and target organs for the PMI, MEIR, MEIW, and sensitive receptors. For 8-hour exposure at the MEIW (inhalation only), table and text presenting hazard quotients (by substance, exposure pathways, and target organs) and the (total) hazard indices by substance and target organs. Note:

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Chronic noncancer results should be shown with inhalation and oral contributions (shown separately) and for the combined (multipathway) impact.

- Identify any sensitive subpopulations (e.g., child daycare facilities, schools, nursing homes) of concern.
- Table and text presenting estimates of population exposure (e.g., population exposure estimates or cancer burden from HARP) (consult District or agency). Tables should indicate the number of persons exposed to a (total) cancer risk greater than  $10^{-7}$ ,  $10^{-6}$ ,  $10^{-5}$ ,  $10^{-4}$ , etc., and total hazard quotient or hazard index greater than 0.5, 1.0, 2.0, and 3.0, etc. Provide a table that shows excess cancer burden for each population unit and the total excess cancer burden, if cancer burden calculation is required.
- Provide maps that illustrate the HRA results for the three sub-bullet points below. These maps should be an actual street map of the area impacted by the facility with elevation contours and actual UTM coordinates, and the facility boundaries clearly labeled. In some cases the elevation contours will make the map too crowded and should therefore not appear. This should be a true map (one that shows roads, structures, etc.), drawn to scale, and not just a schematic drawing. USGS 7.5-minute maps are usually the most appropriate choice (see Section 4.6).
  - The facility (emission points and boundaries), the locations of the PMI, MEIR, MEIW, and sensitive receptors.
  - Maps of the cancer zone of impacts (e.g.,  $10^{-6}$  or  $10^{-7}$  levels - consult District or Agency). The map should clearly identify the zone of impact for the inhalation pathway, the minimum exposure pathways (soil ingestion, dermal exposure, and breast-milk consumption) if multipathway substances are emitted, and the zone of impact for all the applicable exposure pathways (minimum exposure pathways plus any additional site/route specific pathways) for multipathway analyses. Two maps may be needed to accomplish this. The legend of these maps should state the level(s) used for the zone of impact and identify the exposure pathways that were included in the assessment.
  - Maps of the noncancer hazard index (HI) zone of impacts (e.g., 0.5 or 1.0 - consult District or Agency). The noncancer maps should clearly identify the noncancer zones of impact. These include the acute (inhalation), 8-hour (inhalation), chronic (inhalation), and chronic (multipathway) zones of impact. For clarity, presentation of the noncancer zones of impact may require two or more maps. The

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legend of these maps should state the level(s) used for the zone of impact and identify the exposure pathways.

- The risk assessor may want to include a discussion of the strengths and weaknesses of the risk analyses and associated uncertainty directly related to the facility HRA.
- If appropriate, comment on the possible alternatives for control or remedial measures. How do the risks compare?
- If possible, identify any community concerns that influence public perception of risk.
- Sample calculations may be needed for all analyses in the HRA if proprietary software other than HARP was used. The District should be consulted. These calculations should be clearly presented and referenced to the findings they are supporting in the HRA text.
- Version of the Risk Assessment Guidelines and computer program used to prepare the risk assessment.
- If software other than HARP is used for the health assessment modeling, all supporting material must be included with the HRA (e.g., all algorithms and parameters used in a clear, easy to review format).

#### E. References

Include any references used for the HRA in this section.

#### F. Appendices

The appendices should contain all data, sample calculations, assumptions, and all modeling and risk assessment files that are needed to reproduce the HRA results. Ideally, a summary of data used in the HRA will be on paper and all data and model input and output files will be provided electronically (e.g., CD), unless otherwise specified by the district or reviewing authority. All appendices and the information they contain should be referenced, clearly titled, and paginated.

#### **Potential Appendix Topics (if not presented elsewhere in the HRA report):**

- List of all receptors locations (UTM coordinates, receptor ID number or index from the modeling, and the block/street address (e.g., north side of 3,000 block of Smith Street)) for the PMI, MEIR, MEIW, and sensitive receptors.
- List of all emitted substances.
- All emissions files.

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- List of dose-response factors (Reference Exposure Levels and cancer potency factors).
- All air dispersion modeling input and output files. Detailed discussions of meteorological data, regulatory options, emission parameters, receptor locations, etc.
- Census data.
- Maps.
- Identify the site/route dependent exposure pathways for the receptor(s), where appropriate (e.g., MEIR). Provide a summary of the site-specific inputs used for each pathway (e.g., water or grazing intake assumptions) and the data to support them.
- All calculations used to determine emissions, concentrations, and potential health impacts at the PMI, MEIR, MEIW, and sensitive receptors.
- All HRA model input and output (HARP) files for receptors of concern.
- (Total) cancer and noncancer impacts by receptor, substance, and exposure pathway (by endpoint for noncancer) at all receptors.
- Presentation of alternate risk assessment methods (e.g., alternate exposure durations, or Tier-2 to Tier-4 evaluations with supporting information).

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### List of Abbreviations

A - Area  
AB2588 - Air Toxics "Hot Spots" Information and Assessment Act, 1987  
ACFM - Actual Cubic Feet per Minute  
ADL - Annual Dermal Load  
AQMD - Air Quality Management District (District)  
ARB - Air Resources Board  
ASF - Age Sensitivity Factor  
AT - Average Time for Lifetime Cancer Risk  
BAF - Bioaccumulation Factor  
BG - Urban Block Groups  
BLP - Buoyant Line and Point Source Dispersion Model  
BMI - Breast Milk Intake  
BPIP - Building Profile Input Program  
BPIPPRM - Building Profile Input Program for PRIME  
BSA - Body Surface Area  
BW - Bodyweight  
 $C_{air}$  - annual average air concentration  
CALMPRO - Calms processor program  
CAPCOA - California Air Pollution Control Officer's Association  
CAS - Chemical Abstracts Service  
CERCLA - Comprehensive Environmental Response, Compensation and Liability Act  
 $C_f$  - Average concentration of a substance in fish  
 $C_m$  - Average concentration of a substance in mother's milk (misabeled on 114 as Cf)  
 $C_{fa}$  - Average concentration of a substance in animal products  
CONST2 - Constant in the Briggs' stable plume rise equation using BLP  
CONST3 - Constant in the Briggs' neutral plume rise equation using BLP  
CPF - Cancer Potency Factor  
CRIT - Convergence criterion for the line source calculations using BLP  
Cs - Concentration of Substance in the Soil  
CTDMPLUS - Complex Terrain Dispersion Model  
CTSCREEN - Complex Terrain Screening Model  
 $C_v$  - Average concentration of a substance in and on vegetation  
 $C_w$  - Concentration of a Substance in the Water  
DECFA - Pollutant decay factor for use with BLP  
DF - Discount Factor  
DOSE<sub>air</sub> - Daily inhaled dose  
DOSE<sub>fa</sub> - Exposure through ingesting home-raised or farm animal products  
DOSE<sub>ish</sub> - Exposure through ingestion of angler-caught fish  
Dose<sub>lm</sub> - Exposure through mother's milk ingestion  
DOSE<sub>p</sub> - Exposure through ingesting home-grown produce  
DOSE<sub>water</sub> - Exposure through ingesting water

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DTHTA - Vertical potential temperature gradient  
DTSC - Department of Toxic Substance Control  
EASA - Exposure Assessment and Stochastic Analysis  
ED - Rural Enumeration Districts or Exposure Duration (in years)  
EF - Exposure Frequency  
EICG - Emission Inventory Criteria and Guidelines  
EPA - Environmental Protection Agency  
EQ - Equation  
F - Fahrenheit  
FAH - Fraction of Time at Home  
FG - Fraction of diet provided by grazing  
GIS - Geographic Information Systems  
GLC - Ground-Level Concentrations  
GRAF - Gastrointestinal Relative Absorption Factor  
HARP - Hot Spots Analysis and Reporting Program  
HESIS - Hazard Evaluation System and Information Service  
HI - Hazard Index  
HQ - Hazard Quotient  
HRA - Health Risk Assessment  
HSC - Health and Safety Code  
IARC - International Agency for Research on Cancer  
IDELS - Maximum variation in number of stability classes per hour (BLP option)  
ISCST3 - Industrial Source Complex Short Term  
IUPAC - International Union of Pure and Applied Chemistry  
K - Kelvin  
L - Fraction of locally-grown (source-impacted) feed that is not pasture (site-specific)  
LOAEL - Lowest Observed Adverse Effects Level  
LOD - Level of Detection  
LSHEAR - Plume rise wind shear (BLP option)  
LTRANS - Transitional point source plume rise (BLP option)  
MAXIT - Maximum iterations allowed for line source calculations (BLP option)  
MEIR - Maximally Exposed Individual Resident  
MEIW - Maximally Exposed Individual Worker  
METDB - Meteorological Database  
METS - Metabolic Equivalents  
MPRM - Meteorological Processor for Regulatory Models  
MNAF - Molecular Weight Adjustment Factor  
NAS - National Academy of Sciences  
NCDC - National Climatic Data Center  
NOAEL - No Observed Adverse Effects Level  
NTP - National Toxicology Program  
NWS - National Weather Station  
OCD - Offshore and Coastal Dispersion Model  
OEHA - Office of Environmental Health Hazard Assessment  
p - Population density  
PAH - Polycyclic Aromatic Hydrocarbons

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PCB - Polychlorinated Biphenyl  
PCDD - Polychlorinated dibenzo-p-dioxins  
PCDF - Polychlorinated dibenzofurans  
PEXP - Vertical wind speed power law profile exponents  
PM2.5 - Particulate Matter less than 2.5 microns in diameter  
PM10 - Particulate Matter less than 10 microns in diameter  
PMI - Point of Maximum Impact  
QA - Quality Assurance  
QC - Quality Control  
RCRA - Resource Conservation and Recovery Act  
REL - Reference Exposure Level  
RfC - Reference Concentration  
RfD - Reference Dose  
SCRAM - Support Center for Regulatory Air Models  
SDM - Shoreline Dispersion Model  
SIR - Soil Ingestion Rate  
SMAQMD - Sacramento Metropolitan Air Quality Management District  
SRP - Scientific Review Panel  
TAC - Toxic Air Contaminant  
Tco - Biotransfer coefficient  
TEF - Toxic Equivalency Factor  
TERAN - Terrain option in BLP  
TSD - Technical Support Document  
TSP - Total Suspended Particulates  
UCL - Upper Confidence Limits  
USGS - U.S. Geological Survey  
UTM - Universal Transvers Mercator  
WAF - Worker Adjustment Factor  
WHO - World Health Organization

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EXHIBIT 6

OEHHA Air - Adoption of the Revised Technical Support Document for Cancer Potency Factors

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## Air Toxicology and Epidemiology

### ADOPTION OF THE REVISED AIR TOXICS HOT SPOTS PROGRAM TECHNICAL SUPPORT DOCUMENT FOR CANCER POTENCY FACTORS [06/01/09] APPENDIX C UPDATED 2011

The Office of Environmental Health Hazard Assessment (OEHHA) is required to develop guidelines for conducting health risk assessments under the Air Toxics Hot Spots Program (Health and Safety Code Section 44360(b)(2)). OEHHA initially developed Technical Support Documents (TSDs) in 1999-2000 in response to this statutory requirement, including one which listed and described the derivation of cancer potencies for individual air contaminants. OEHHA has developed a revised draft TSD, "Air Toxics Hot Spots Program Technical Support Document for Cancer Potencies," which is designed to replace the original TSDs. The revised TSD presents updated methodology that reflects scientific knowledge and techniques developed since the previous guidelines were prepared, and in particular to explicitly include consideration of possible differential effects on the health of infants, children and other sensitive subpopulations, in accordance with the mandate of the Children's Environmental Health Protection Act (Senate Bill 25, Escutia, Chapter 731, Statutes of 1999, Health and Safety Code Sections 39669.5 et seq.).

[A draft of the TSD was released on June 20, 2008](#) to solicit public comment. The document was then reviewed by the State's Scientific Review Panel on Toxic Air Contaminants (SRP). It was initially presented to the SRP on [October 10, 2008](#). Revised versions of the document reflecting new data and comments from the public and the SRP were discussed at meetings held on December 5, 2008 and May 12, 2009. At the latter meeting, the SRP approved the final versions of the methodology section and the associated appendices.

Following this process, and by this memo, OEHHA is finalizing and adopting the TSD for Cancer Potency Factors. Adoption of the TSD does not automatically affect the existing cancer potency factors for individual air contaminants (which are listed in the appendices to the TSD). These existing cancer potency values are listed in Appendix A to the new TSD, and the toxicological summaries describing their derivation are presented in Appendix B. Any further new or revised cancer potencies approved by the SRP will be adopted and also included in these appendices.

Follow [this link to download the "Air Toxics Hot Spots Risk Assessment Guidelines Part II: Technical Support Document for](#)

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[http://www.oehha.ca.gov/air/hot\\_spots/tsd052909.html](http://www.oehha.ca.gov/air/hot_spots/tsd052909.html)[11/2/2015 1:32:41 PM]



OEHHA Air - Adoption of the Revised Technical Support Document for Cancer Potency Factors

[Cancer Potency Factors" \(May 2009\)](#)

**Appendices**

[Appendix A. A lookup table containing unit risk and cancer potency values, updated 2011](#)

[Appendix B. Chemical-specific summaries of the information used to derive unit risk and cancer potency values, updated 2011](#)

[Appendix C. A description of the use of toxicity equivalency factors for determining unit risk and cancer potency factors for polychlorinated dibenzo-p-dioxins, dibenzofurans and dioxin-like polychlorinated biphenyls, Revised 01/20/11](#)

[Appendix D. A listing of Toxic Air Contaminants identified by the California Air Resources Board.](#)

[Appendix E. Descriptions of the International Agency for Research on Cancer \(IARC\) and U.S. Environmental Protection Agency \(U.S. EPA\) carcinogen classifications.](#)

[Appendix F. An asbestos quantity conversion factor for calculating asbestos concentrations expressed as 100 fibers/m3 from asbestos concentrations expressed as µg/m3.](#)

[Appendix G. Procedures for revisiting or delisting cancer potency factors by the program of origin.](#)

[Appendix H. Exposure routes and studies used to derive cancer unit risks and slope factors.](#)

[Appendix I. "Assessing susceptibility from early-life exposure to carcinogens": Barton et al., 2005 \(from Environmental Health Perspectives\).](#)

[Appendix J. "In Utero and Early Life Susceptibility to Carcinogens: The Derivation of Age-at-Exposure Sensitivity Measures" – conducted by OEHHA's Reproductive and Cancer Hazard Assessment Branch.](#)

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## Air Toxicology and Epidemiology

### NOTICE OF ADOPTION OF AIR TOXICS HOT SPOTS PROGRAM RISK ASSESSMENT GUIDELINES: REVISED TECHNICAL SUPPORT DOCUMENT FOR EXPOSURE ASSESSMENT AND STOCHASTIC ANALYSIS [08/27/12]

The Office of Environmental Health Hazard Assessment (OEHHA) is adopting an updated version of the document, *Air Toxics Hot Spots Program Risk Assessment Guidelines: Technical Support Document for Exposure Assessment and Stochastic Analysis*. The document becomes available on the OEHHA Home Page at <http://www.oehha.ca.gov> on August 27, 2012.

#### BACKGROUND

OEHHA is required to develop guidelines for conducting health risk assessments under the Air Toxics Hot Spots Program (Health and Safety Code Section 44360(b)(2)). OEHHA previously developed Technical Support Documents (TSDs) in response to this statutory requirement, including one in 2000 for exposure assessment. This revised draft TSD replaces the original TSD, and reflects new scientific knowledge developed since the previous guidelines were prepared. We have updated exposure parameters (e.g., inhalation rate, food consumption rate, etc.) based on the most recent data, including exposure factors for infants and children, in accordance with the mandate of the Children's Environmental Health Protection Act (Senate Bill 25, Escutia, Chapter 731, Statutes of 1999, Health and Safety Code Sections 39669.5 *et seq.*). The revised document also updates the approach to assessing dermal exposure.

A draft version of this TSD was released for public comment on [November 7, 2011](#), and was discussed at public workshops in Oakland and Diamond Bar, CA in December 2011. The document was then revised to reflect public comments, and peer reviewed by the State's Scientific Review Panel on Toxic Air Contaminants (SRP). It was initially presented to the SRP on April 5, 2012. A revised version of the document reflecting comments of the SRP was discussed at a second meeting held on [June 25, 2012](#). At the latter meeting, the SRP approved the document describing the RELs and their derivation, subject to some additional editorial changes which have been incorporated into the final version.

Download the document [Air Toxics Hot Spots Program Risk Assessment Guidelines: Technical Support Document for Exposure](#)

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- Criteria Air Pollutants
- Diesel Exhaust
- Environmental Tobacco Smoke
- Hot Spots Guidelines: Technical Support Documents
  - Non-cancer health effects (RELs)
  - Table of all RELs
  - Cancer Potency Factors
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- Exposure Assessment and Stochastic
- Risk Assessment Methodology
- MTBE and Ethanol
- Toxic Air Contaminants
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- Toxicity Criteria Database
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EXHIBIT 8



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### 3 Daily Breathing Rates

#### 3.1 Introduction

This chapter presents age-specific breathing rates for use in health risk assessments for short-term exposure to maximum 1-hour facility emissions and for long-term daily average exposures resulting from continuous or repeated 8-hour exposure. The specified age ranges of interest in the "Hot Spots" program are ages third trimester, 0<2, 2<9, 9<16, 16<30 and 30-70 years.

The term ventilation rate has been frequently used for the metric of volume of air inhaled per minute (i.e., mL/min) and is used in this document to describe short-term, one hour exposures. For convenience, the term "breathing rate" is applied throughout this chapter for chronic daily exposure, both to the metric of volume of air inhaled per day (L/day) and the volume of air inhaled per kg body weight per day (L/kg-day). The normalized daily breathing rate in L/kg-day is the preferred metric for use in the "Hot Spots" program. The term "respiratory rate" is not used in this chapter interchangeably with "breathing rate" because respiratory rate usually represents the number of breaths taken per unit time, and not the volume of air taken in per unit time.

The 8-hour breathing rates were developed for specialized exposure scenarios that involve exposures only during facility operations of about 8-12 hours/day. Eight-hour breathing rates reflect exposures to off-site workers or exposures that may occur in schools when class is in session. Ventilation rates for 1-hour exposure were developed to meet the SB-352 mandate for school districts to conduct a risk assessment at school sites located within 100 meters of a freeway or busy roadway. These ventilation rates were developed for exposures to 1-hour maximum facility emissions that may occur during passive activities such as sitting at a desk during class instruction or during higher intensity activities such as play during recess.

OEHHA recommends the breathing rates presented in Section 3.2. Various published methods for deriving daily breathing rates and their advantages and limitations are discussed in Sections 3.3 to 3.7. Where possible, the breathing rates from these reports were re-evaluated to correspond with the five specific age groups used in OEHHA's risk assessment guidelines.

At elevations above 5000 feet, the ventilation rate will increase due to lower air pressure (NOLS, 2012). The respiratory rate at this elevation peaks at one week and then slowly decreases over the next few months, although it tends to remain higher than its normal rate at sea level. There have been a few facilities located at 5000 feet or higher that have been required to produce a Hot Spots risk assessment. However, long-term residents at high altitude will have breathing rates near what is found in residents at sea level. OEHHA does not anticipate any adjustments will be needed to the breathing rates at higher altitudes in California, although the Districts should consider this issue and adjust if needed for very high altitude facilities.

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### 3.2 Breathing Rate Recommendations

#### 3.2.1 Long-Term Breathing Rates

The recommended long-term daily breathing rate point estimates in Table 3.1 are based on a mean of two different methods used to determine daily breathing rates, the doubly labeled water method and an energy intake approach based on food consumption data from the Continuing Survey of Food Intake of Individuals (CSFII) (See Section 3.5.5). These methods are described in detail below. The recommended distributions for stochastic analysis are presented in Tables 3.2a-b. The breathing rates normalized to body weight are expressed in L/kg-day, and the non-body weight-normalized breathing rates are expressed in m<sup>3</sup>/day. All values were rounded to two or three significant figures.

**Table 3.1. Recommended Point Estimates for Long-Term Daily Breathing Rates**

	3 <sup>rd</sup> Trimester	0<2 years	2<9 years	9<16 years	16<30 years	30-70 years
<b>L/kg-day</b>						
Mean	225	658	535	452	210	185
95th Percentile	361	1090	861	745	335	290
<b>m<sup>3</sup>/day</b>						
Mean	15.3	6.2	10.7	13.3	15.0	13.9
95th Percentile	23.4	11.2	16.4	22.6	23.5	22.9

OEHHA calculated mean and high end breathing rates for the third trimester assuming the dose to the fetus during the third trimester was the same as that to the mother.



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**TABLE 3.2a. Recommended Breathing Rate Distributions (L/kg-day) by Age Group for Stochastic Analysis**

	3 <sup>rd</sup> Trimester	0<2 years	2<9 years	2<16 years	16<30 years	16-70 years
Distribution	Max extreme	Max extreme	Max extreme	Log- normal	Logistic	Logistic
Minimum	78	196	156	57	40	13
Maximum	491	2,584	1,713	1,692	635	860
Scale	59.31	568.09	125.59		40.92	36.19
Likeliest	191.50	152.12	462.61			
Location				-144.06		
Mean	225	658	535	452	210	185
Std Dev	72	217	168	172	75	67
Skewness	0.83	2.01	1.64	1.11	0.83	1.32
Kurtosis	3.68	10.61	7.88	6.02	5.17	10.83
<b>Percentiles</b>						
5%	127	416	328	216	96	86
10%	142	454	367	259	118	104
25%	179	525	427	331	161	141
50%	212	618	504	432	207	181
75%	260	723	602	545	252	222
80%	273	758	631	572	261	233
90%	333	934	732	659	307	262
95%	361	1090	861	745	335	290
99%	412	1430	1,140	996	432	361

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**TABLE 3.2b. Recommended Breathing Rate Distributions (M<sup>3</sup>/day) by Age Group for Stochastic Analysis**

	3 <sup>rd</sup> Trimester	0<2 years	2<9 years	2<16 years	16<30 years	16-70 years
Distribution	Logistic	Log- normal	Log- normal	Log- normal	Logistic	Log- normal
Minimum	4.0	0.8	2.7	2.7	1.5	1.8
Maximum	29.0	20.1	31.7	52.3	75.4	75.4
Scale	2,403.72				2,992.97	
Location		-650.7	-1,072.8	598.9		-8,251.3
Mean	15.1	6.2	10.7	13.3	15.0	13.9
Std Dev	4.3	2.6	3.1	4.9	5.4	5.4
Skewness	0.48	1.06	0.912	1.39	1.16	1.42
Kurtosis	3.73	4.69	5.18	7.14	12.22	11.19
<b>Percentiles</b>						
5%	8.6	2.9	6.1	6.9	6.4	6.3
10%	10.4	3.3	6.9	8.1	8.5	7.6
25%	12.3	4.4	8.5	9.9	11.8	10.3
50%	15.1	5.8	10.4	12.3	14.7	13.6
75%	17.6	7.6	12.4	15.9	18.0	16.8
80%	18.2	8.1	13.0	16.7	18.9	17.6
90%	21.4	9.6	14.8	19.5	21.5	20.1
95%	23.4	11.2	16.4	22.6	23.5	22.9
99%	28.8	13.9	20.0	28.1	29.9	28.0

### 3.2.2 Eight-hour Breathing Rate Point Estimates

The 8-hour breathing rates are based on minute ventilation rates derived by U.S. EPA (2009). The minute ventilation rates, presented in Section 3.6, were multiplied by 480 (60 min x 8) to generate 8-hour breathing rate point estimates shown in Table 3.3. The 8-hour breathing rates may be useful for cancer risk assessment for the off-site worker exposure scenario, and school exposures to facility emissions. They may also be useful for evaluating residential exposures where the facility operates non-continuously. The 8-hour breathing rates vary depending on the intensity of the activity. Exposed individuals may be engaged in activities ranging from watching TV to desk work, which would reflect breathing rates of sedentary/passive or light activities, to yard work or farm worker activities, which would reflect breathing rates of moderate intensity or greater. Breathing rates resulting from high intensity activities generally cannot be sustained for an 8-hour period (see Section 3.6).

OEHHA recommends using point estimate 8-hour breathing rates in L/kg-8-hrs based on the mean and 95<sup>th</sup> percentile of moderate intensity activities, 170 and 230 L/kg-8-hrs, respectively, for adults 16-70 yrs old. Point estimates for lower breathing rates of



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sedentary/passive and light intensity work activities may be used in site-specific scenarios (i.e., work in which activity is limited to desk jobs or similar work). Pregnant women will generally participate in lower intensity activities than non-pregnant women, but as shown in Tables 3.1 and 3.2, breathing rate normalized to body weight will be slightly greater than breathing rates of adult men and non-pregnant women combined. OEHHA recommends using the mean and 95<sup>th</sup> percentile 8-hour breathing rates based on moderate intensity activity of 16<30 year-olds for third trimester women.

**Table 3.3a. Eight Hour Breathing Rate (L/kg-8 Hr) Point Estimates for Males and Females Combined**

	0<2 years	2<9 years	2<16 years	16<30 years	16-70 years
<b>Sedentary &amp; Passive Activities (METs &lt; 1.5)</b>					
Mean	200	100	80	30	30
95 <sup>th</sup> Percentile	250	140	120	40	40
<b>Light Intensity Activities (1.5 &lt; METs &lt; 3.0)</b>					
Mean	490	250	200	80	80
95 <sup>th</sup> Percentile	600	340	270	100	100
<b>Moderate Intensity Activities (3.0 &lt; METs &lt; 6.0)</b>					
Mean	890	470	380	170	170
95 <sup>th</sup> Percentile	1200	640	520	240	230

**Table 3.3b. Eight-Hour Breathing Rate (M<sup>3</sup>/8-Hr) Point Estimates for Males and females Combined**

	0<2 years	2<9 years	2<16 years	16<30 years	16-70 years
<b>Sedentary &amp; Passive Activities (METs &lt; 1.5)</b>					
Mean	1.86	2.24	2.37	2.33	2.53
95 <sup>th</sup> Percentile	2.69	2.99	3.20	3.23	3.34
<b>Light Intensity Activities (1.5 &lt; METs &lt; 3.0)</b>					
Mean	4.61	5.44	5.66	5.72	6.03
95 <sup>th</sup> Percentile	6.51	7.10	7.52	7.75	7.80
<b>Moderate Intensity Activities (3.0 &lt; METs &lt; 6.0)</b>					
Mean	8.50	10.20	10.84	12.52	12.94
95 <sup>th</sup> Percentile	12.36	13.47	14.52	18.08	18.07

### 3.2.3 Short-term (1-Hour) Ventilation Rate Point Estimates

One-hour ventilation rates (Tables 3.4a-b) were calculated from U.S. EPA (2009) minute ventilation rates (e.g., minute ventilation rate x 60) to meet the SB-352 mandate for school districts to conduct a risk assessment for school sites located within 100 M of a freeway or busy roadway. These ventilation rates allow assessment of exposures to facility emissions during the course of the school day.

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The age groups for children mostly deviate from those child age groupings designed for AB2588. The age groups attempt to address specific school categories (e.g., kindergarten, grade school, high school) under SB-352. However, if 1-hr ventilation rates are required that fit the AB2588 age groups, 1-hr ventilation rates can be calculated from the 8-hr breathing rates shown in Tables 3.28a-b.

**Table 3.4a. One-Hour Breathing Rates for SB352 School Sites in L/kg-60 min (Males and Females Combined)**

	0<2 Years	2<6 years	6<11 years	11<16 years	16-70 years
<b>Sedentary &amp; Passive Activities (METs &lt; 1.5)</b>					
Mean	25	17	10	6	4
95 <sup>th</sup> Percentile	31	23	14	8	5
<b>Light Intensity Activities (1.5 &lt; METs &lt; 3.0)</b>					
Mean	61	41	23	14	10
95 <sup>th</sup> Percentile	75	54	32	19	13
<b>Moderate Intensity Activities (3.0 &lt; METs &lt; 6.0)</b>					
Mean	110	76	44	28	21
95 <sup>th</sup> Percentile	140	100	62	39	29
<b>High Intensity Activities (METs ≥ 6.0)</b>					
Mean	-	140	82	55	38
95 <sup>th</sup> Percentile	-	190	110	80	56

**Table 3.4b. One-Hour Breathing Rates for SB352 School Sites in M<sup>3</sup>/60 min (Males and Females Combined)**

	0<2 Years	2<6 years	6<11 years	11<16 years	16-70 years
<b>Sedentary &amp; Passive Activities (METs &lt; 1.5)</b>					
Mean	0.23	0.27	0.29	0.33	0.32
95 <sup>th</sup> Percentile	0.34	0.36	0.39	0.45	0.42
<b>Light Intensity Activities (1.5 &lt; METs &lt; 3.0)</b>					
Mean	0.58	0.68	0.68	0.76	0.75
95 <sup>th</sup> Percentile	0.81	0.86	0.91	1.03	0.97
<b>Moderate Intensity Activities (3.0 &lt; METs &lt; 6.0)</b>					
Mean	1.06	1.25	1.30	1.50	1.62
95 <sup>th</sup> Percentile	1.54	1.63	1.73	2.05	2.26
<b>High Intensity Activities (METs ≥ 6.0)</b>					
Mean	-	2.24	2.49	2.92	3.01
95 <sup>th</sup> Percentile	-	2.98	3.51	4.18	4.39

For children at school, MET activity levels equivalent to sitting at a desk during instruction and outside at play can be used as guidance for determining 1-hour breathing rates. As shown in Table 3.26 below, sitting was assigned a MET of 1.5, while play outdoors, recess and physical education had mean MET values in the range



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of 4.5 to 5.0 (U.S. EPA, 2009). Thus, 1-hour breathing rates based on sedentary/passive or light activities to represent activities within the class room and moderate intensity activities to represent activities during recess and some physical education classes, are recommended.

U. S. EPA (2009) also determined ventilation rates for high intensity activities with MET values  $\geq 6.0$ . The distributions generated by U.S. EPA for hrs/day spent at MET values  $\geq 6.0$  for infants (age 0<2 yrs) suggests that this level of activity is unlikely for this age group. However, there is a subgroup of children in the older child age groups that exercise at this level for at least one hr/day, although this level of activity may not happen all in one hour's time. OEHHHA recommends using 1-hr high intensity ventilatory rates for after-school sports and training that require high energy output such as track, football, tennis etc. This MET category may also be used for demanding sports during physical education classes.

### 3.3 Estimation of Daily Breathing Rates

#### 3.3.1 Inhalation Dose and Cancer Risk

The approach to estimating cancer risk from long-term inhalation exposure to carcinogens requires calculating a range of potential doses and multiplying by cancer potency factors in units of inverse dose to obtain a range of cancer risks. This range reflects variability in exposure rather than in the dose-response. In equation 3-1, the daily breathing rate (L/kg BW-day) is the variate which is varied for each age group.

The general algorithm for estimating dose via the inhalation route is as follows:

$$\text{DOSE}_{\text{air}} = \text{C}_{\text{air}} \times [\text{BR}/\text{BW}] \times A \times \text{EF} \times (1 \times 10^{-6}) \quad (\text{Eq. 3-1})$$

where:

DOSE <sub>air</sub>	= dose by inhalation (mg/kg BW-day)
C <sub>air</sub>	= concentration in air (μg/m <sup>3</sup> )
[BR/BW]	= daily breathing rate normalized to body weight (L/kg BW-day)
A	= inhalation absorption factor, if applicable (default = 1)
EF	= exposure frequency (days/365 days)
1 x 10 <sup>-6</sup>	= conversion factors (μg to mg, L to m <sup>3</sup> )

The inhalation absorption factor (A) is a unitless factor that is only used if the cancer potency factor itself includes a correction for absorption across the lung. It is inappropriate to adjust a dose for absorption if the cancer potency factor is based on applied rather than absorbed dose. The exposure frequency (EF) is set at 350 days per year (i.e., per 365 days) to allow for a two week period away from home each year. (US EPA, (1991). Another factor may come into consideration in the inhalation dose equation, the fraction of time at home (FAH). See Chapter 11 for more details. For cancer risk, the risk is calculated for each age group using the appropriate age sensitivity factors (ASFs) and the chemical-specific cancer potency factor (CPF), expressed in units of (mg/kg-day)<sup>-1</sup>.

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$$\text{RISK}_{\text{air}} = \text{DOSE}_{\text{air}} \times \text{CPF} \times \text{ASF} \times \text{ED}/\text{AT} \quad (\text{Eq. 3-2})$$

RISK is the predicted risk of cancer (unitless) over a lifetime as a result of the exposure, and is usually expressed as chances per million persons exposed (e.g.,  $5 \times 10^{-6}$  would be 5 chances per million persons exposed).

The dose-response phase of a cancer risk assessment aims to characterize the relationship between an applied dose of a carcinogen and the risk of tumor appearance in a human. This is usually expressed as a cancer potency factor, or CPF, in the above equation. The CPF is the slope of the extrapolated dose-response curve and is expressed as units of inverse dose (mg/kg-d)<sup>-1</sup>, or inverse concentration (μg/m<sup>3</sup>)<sup>-1</sup>.

Exposure duration (ED) is the number of years within the age groupings. In order to accommodate the use of the ASFs (OEHHHA, 2009), the exposure for each age grouping must be separately calculated. Thus, the DOSE<sub>air</sub> and ED are different for each age grouping. The ASF, as shown below, is 10 for the third trimester and infants 0<2 years of age, is 3 for children age 2<16 years of age, and is 1 for adults 16 to 70 years of age.

ED = exposure duration (yrs):	
0.25 yrs for third trimester	(ASF = 10)
2 yrs for 0<2 age group	(ASF = 10)
7 yrs for 2<9 age group	(ASF = 3)
14 yrs for 2<16 age group	(ASF = 3)
14 yrs for 16<30 age group	(ASF = 1)
54 yrs for 16-70 age group	(ASF = 1)

AT, the averaging time for lifetime cancer risks, is 70 years in all cases. To determine lifetime cancer risks, the risks are then summed across the age groups:

$$\text{RISK}_{\text{air}}(\text{lifetime}) = \text{RISK}_{\text{air}}(\text{3rdtrn}) + \text{RISK}_{\text{air}}(\text{0<2 yr}) + \text{RISK}_{\text{air}}(\text{2<16 yr}) + \text{RISK}_{\text{air}}(\text{16-70yr}) \quad (\text{Eq. 3-3})$$

As explained in Chapter 1, we also need to accommodate cancer risk estimates for the average (9 years) and high-end (30 years) length of time at a single residence, as well as the traditional 70 year lifetime cancer risk estimate. For example, assessing risk in a 9 year residential scenario assumes exposure during the most sensitive period, from the third trimester to 9 years of age and would be presented as follows:

$$\text{RISK}_{\text{air}}(\text{9-yr residency}) = \text{RISK}_{\text{air}}(\text{3rdtrn}) + \text{RISK}_{\text{air}}(\text{0<2 yr}) + \text{RISK}_{\text{air}}(\text{2<9 yr}) \quad (\text{Eq. 3-4})$$

For 30-year residential exposure scenario, the 2<16 and 16<30 age group RISK<sub>air</sub> would be added to the risk from exposures in the third trimester and ages 0<2yrs. For 70 year residency risk, Eq 3-3 would apply.

#### 3.3.2 Methods for Estimating Daily Breathing Rates

Two basic techniques have been developed to indirectly estimate daily breathing rates: the time-activity-ventilation (TAV) approach and an energy expenditure derivation



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method. Ideally, daily breathing rates would be directly measured. However, the equipment for direct measurement is bulky and obtrusive and thus impractical for measuring breathing rates over an entire 24-hour period, especially on children performing their typical activities. Thus, ventilation measurements are typically taken for shorter time periods under specific conditions (e.g., running or walking on a treadmill).

The TAV approach relies on estimates or measurements of ventilation rates at varying physical activity levels, and estimates of time spent each day at those activity levels. An average daily breathing rate is generated by summing the products of ventilation rate (L/min) and time spent (min/day) at each activity level.

The second approach derives breathing rates based on daily energy expenditure and was first proposed by Layton (1993). Layton reasoned that breathing rate is primarily controlled by the amount of oxygen needed to metabolically convert food into energy the body can use. Because the volume of oxygen required to produce one kcal of energy and the ratio of the volume of oxygen consumed to the volume of air inhaled per unit time are both constant values, the amount of energy a person expends is directly proportional to the volume of air the person breathes. Layton (1993) developed an equation that models this relationship and that can be used to derive breathing rates from energy expenditure data:

$$VE = H \times VQ \times EE \quad (\text{Eq. 3-5})$$

where:

VE = the volume of air breathed per day (L/day),  
H = the volume of oxygen consumed to produce 1 kcal of energy (L/kcal),  
VQ = the ratio of the volume of air to the volume of oxygen breathed per unit time and is referred to as the breathing equivalent (unitless)  
EE = energy (kcal) expended per day

Layton calculated an H value of 0.21 L/kcal for noninfant children. Arcus-Arth and Blaisdell (2007) calculated essentially the same H value of 0.22 L/kcal from data of non-breastfed infants based on food surveys. For VQ, Layton calculated a value of 27 from adult data. Children have different respiratory minute ventilation rates, as well as other respiratory parameter values, relative to adults. Therefore, children's VQ values can be different from those of adults. Arcus-Arth and Blaisdell (2007) calculated VQ values for children from which daily breathing rates can be derived (Table 3.5).

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**Table 3.5. Mean VQ Values Calculated for Children**

	Weighted mean VQ	Recommended VQ
Infants 0-11 mo.	nd <sup>a</sup>	33.5
Boys & girls 1-3 yrs	nd <sup>a</sup>	33.5
Boys & girls 4-8 yrs	33.5	33.5
Boys 9-18 yrs	30.6	30.6
Girls 9-18 yrs	31.5	31.5

<sup>a</sup> Insufficient or no data

Three variations of estimating EE have been used based on conversion of metabolic energy to derive a breathing rate: (1) from the caloric content of daily food intake, (2) as the product of basal metabolic rate (BMR) and ratios of average daily energy expenditure to BMR, and (3) as time-weighted averages of energy expenditure (expressed as multiples of BMR) across different levels of physical activity during the course of a day. Published reports applying these variations in metabolic energy conversion to arrive at breathing rates using Layton's equation are summarized below.

In addition to using energy intake data with Layton's method to derive breathing rates, an approach called the doubly labeled water (DLW) technique has also been used to derive total energy expenditure and is summarized below. The DLW data have been shown to be quite accurate, but the approach has only been applied to specific sub-populations.

### 3.4 Available Daily Breathing Rate Estimates

There are a number of sources of information on daily breathing rates for various age groups and other subpopulations that have been derived via the methods described above. Some sources have compiled breathing rates from other studies.

#### 3.4.1 Traditional Breathing Rate Estimation

The book Reference Man (Snyder et al., 1975), a report by the International Commission on Radiological Protection (ICRP), presents breathing rates based on about 10 limited studies. Using an assumption of 8 hour (hr) resting activity and 16 hr light activity and the breathing rates (see Table 3.6), ICRP recommended daily breathing rates of 23 m<sup>3</sup>/day for adult males, 21 m<sup>3</sup>/day for adult females, and 15 m<sup>3</sup>/day for a 10 year old child. In addition, assuming 10 hr resting and 14 hr light activity each day, ICRP recommends a daily breathing rate of 3.8 m<sup>3</sup>/day for a 1 year old. Finally, assuming 23 hr resting and 1 hr light activity, ICRP recommends a daily breathing rate of 0.8 m<sup>3</sup>/day for a newborn. The breathing rates estimated by the ICRP used sources that had a small sample size and were limited in scope. Table 3.6 is the minute volume data upon which the daily breathing rates were based.



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**Table 3.6. Minute Volumes from ICRP'S Reference Man <sup>a</sup>**

	Resting L/min (m <sup>3</sup> /hr)	Light Activity L/min (m <sup>3</sup> /hr)
Adult male	7.5 (0.45)	20 (1.2)
Adult female	6.0 (0.36)	19 (1.14)
Child, 10 yr	4.8 (0.29)	13 (0.78)
Child, 1 yr	1.5 (0.09)	4.2 (0.25)
Newborn	0.5 (0.03)	1.5 (0.09)

<sup>a</sup> Data compiled from available studies measuring minute volume at various activities by age/sex categories

This report provided the approach used in traditional risk assessment, in that a single estimate of daily breathing was employed, often 20 m<sup>3</sup>/day for a 70-kg person.

### 3.4.2 Daily Breathing Rate Estimates Based on Time-Activity-Ventilation (TAV) Data

#### 3.4.2.1 Marty et al. (2002)

Marty et al. (2002) derived California-specific distributions of daily breathing rates using estimates and measurements of ventilation rates at varying physical activity levels, and estimates of time spent each day at those activity levels. Two activity pattern studies were conducted in which activities of a randomly sampled population of 1762 adults and 1200 children were recorded retrospectively for the previous 24 hours via telephone interview (Phillips et al., 1991; Wiley et al., 1991a; Wiley et al., 1991b; Jenkins et al., 1992). Measured breathing rates in people performing various laboratory and field protocols were conducted by Adams et al. (1993). The subjects in this study were 160 healthy individuals of both sexes, ranging in age from 6 to 77 years. An additional forty 6 to 12 year olds and twelve 3 to 5 year olds were recruited for specific protocols.

For adults, each activity was assigned to a resting, light, moderate, moderately heavy, or heavy activity category to reflect the ventilation rate that could reasonably be associated with that activity. For children there were only resting, light, moderate, and heavy activity categories. The ventilation rates were classified into similar levels (e.g., the lying down protocol was considered the resting category of ventilation rate). The measured ventilation for each individual in the lab and field protocols was divided by that person's body weight. For each individual, the time spent at each activity level was summed over the day. The mean ventilation rate for each category (resting, etc.) was then multiplied by the summed number of minutes per day in that category to derive the daily breathing rate for each category. The breathing rates were then summed over categories to give a total daily breathing rate. The moments and percentiles for the raw derived breathing rates as well as for the breathing rates fit to a gamma distribution are presented in Tables 3.7 and 3.8 for the combined group of adolescents and adults (i.e., >12 years age) and for children (<12 years age). OEHHHA staff also derived distributions of breathing rates for the equivalent of a 63-kg adult and

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an 18-kg child. These breathing rates form the basis of the current risk assessment guidelines (OEHHA, 2000), which this document is revising.

**Table 3.7 Children's (<12 Years) Daily Breathing Rates (L/Kg-Day)**

	Moments and Percentiles from Empirical Data	Moments and Percentiles, Fitted Gamma Parametric Model	Breathing Rate Equivalent for a 18 kg Child, m <sup>3</sup> /Day (Empirical Data)
N	1200		
Mean	452	451	8.1
Std Dev	67.7	66.1	1.22
Skewness	0.957	0.9	
Kurtosis	1.19	4.32	
%TILES	L/kg-day		
1%	342.5	(not calculated)	6.17
5%	364.5	360.3	6.56
10%	375	374.9	6.75
25%	401.5	402.7	7.23
50%	441	440.7	7.94
75%	489.5	488.4	8.81
90%	540.5	537.9	9.73
95%	580.5	572.1	10.5
99%	663.3	(not calculated)	11.9
Sample Max	747.5		13.5



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**Table 3.8 Adult/Adolescent (>12 Years) Breathing Rates (L/kg-Day)**

	Moments and Percentiles from Empirical Data	Moments and Percentiles, Fitted Gamma Parametric Model	Breathing Rate Equivalent for a 63 kg Adult, m <sup>3</sup> /Day
N	1579		
Mean	232	233	14.6
Std Dev	64.6	56.0	4.07
Skewness	2.07	1.63	
Kurtosis	6.41	6.89	
<b>%TILES</b>	<b>L/kg-day</b>		
1%	174	(Not calculated)	11.0
5%	179	172.3	11.3
10%	181	178.0	11.4
25%	187	192.4	11.8
50%	209	218.9	13.2
75%	254	257.9	16.0
90%	307	307.8	19.3
95%	381	342.8	24.0
99%	494.0	(Not calculated)	31.1
Sample Max	693		43.7

Advantages of these rates are that the activity pattern data were from a large randomly sampled population of California adults and children, and that ventilation rates were normalized by body weight for each individual in the ventilation rate study. However, body weight information was not available for the activity pattern subjects. Measured breathing rates during specified activities were also collected from California participants with the intention that the data would be used in conjunction with the activity pattern data to derive daily breathing rates.

Limitations include the use of one-day activity pattern survey data that may tend to overestimate long-term daily breathing rates because both intraindividual variability and interindividual variability are poorly characterized. However, intraindividual variability is believed to be small relative to interindividual variability, which would make the breathing rate distributions reasonably accurate for chronic exposure assessment. Despite these limitations, the derived breathing rates were reasonably similar to those measured by the doubly-labeled water method (described in (OEHA, 2000)).

Because the time-weighted average method involves professional judgment in assigning a breathing rate measured during a specific activity to various other types of activities, some uncertainty is introduced into the resulting daily breathing rates. Lastly, there is a paucity of breathing rate data for specific activities in children in the 3 to 6

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year age range, and no data for children and infants younger than 3 years old. Thus, only a broad age range (i.e., < 12 years old) could be used for estimating daily breathing rates in children. Daily breathing rates cannot be reliably estimated from this study for children and infants over narrow age ranges, such as the critical 0<2 year age group.

### 3.4.2.2 Allan et al. (2008)

Allan et al. (2008) also estimated breathing rates for specified age groups by the TAV approach, but employed a greater number of time-activity data sets than that used by Marty et al. (2002). This study updated TAV inhalation rate distributions from a previous report by Allan and Richardson (1998) by incorporating supplemental minute volume and time-activity data, and by correlating minute volume with metabolic equivalents (METs) for performing the physical activities at the time of measurement. Published time-activity and minute volume data used by Marty et al. (2002) were also used by the authors to develop the distributions (Wiley et al., 1991a; Wiley et al., 1991b; Adams, 1993), but also a number of other reports primarily conducted in the USA and Canada.

Their TAV approach calculated mean expected breathing rates for five different activity levels (i.e., level 1 – resting; level 2 – very light activity; level 3 – light activity; level 4 – light to moderate activity, level 5 – moderate to heavy activity). For infants, only three levels of activity were defined (i.e., sleeping or napping, awake but not crying, and crying).

Probability density functions describing 24-hour inhalation rates were generated using Monte Carlo simulation and can be described with lognormal distributions. Table 3.9 presents the estimated breathing rates in m<sup>3</sup>/day for males and females (combined) by age groupings commonly used in Canada for risk assessment purposes. In their report, Allan et al. (2008) also provided breathing rates for males and females separately. However, breathing rate distributions adjusted for body weight (m<sup>3</sup>/day-kg) were not included in the report.

**Table 3.9. Allan et al. (2008) TAV-Derived Daily Breathing Rates (m<sup>3</sup>/Day) for Males And Females Combined**

Age Category	Males and Females Combined (m <sup>3</sup> /day)			
	Mean + SD	50%-ile <sup>a</sup>	90%-ile <sup>a</sup>	95%-ile <sup>a</sup>
Infants (0-6 mo)	2.18 ± 0.59	2.06	2.87	3.12
Toddlers (7 mo-4 yr)	8.31 ± 2.19	7.88	10.82	11.72
Children (5-11 yr)	14.52 ± 3.38	13.95	18.49	19.83
Teenagers (12-19 yr)	15.57 ± 4.00	14.80	20.09	21.69
Adults (20-59 yr)	16.57 ± 4.05	15.88	21.30	22.92
Seniors (60+ yr)	15.02 ± 3.94	14.35	19.72	21.36

<sup>a</sup> Percentiles provided courtesy of Allan (e-mail communication)

Allan et al. (2008) compared the breathing rate distribution derived by the DLW method (see below, Table 3.12) to their TAV breathing rate probability density function results and found that there appeared to be longer tails in the upper bounds for all age groups except teenagers and infants for the TAV method, suggesting the TAV distribution gives



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a better representation of the more exposed members of the population such as athletes. For teenagers, the TAV and DLW distributions show considerable overlap. But for infants, lower breathing rates were observed by the TAV approach compared with the DLW approach. The authors could not explain this discrepancy. Unlike the Marty et al. (2002) study, daily breathing rates could be estimated in infants and toddlers. However, there is still a shortage of TAV data in children in the younger age groups relative to adults.

Uncertainty was reduced by grouping activities by expected METs. However, Allen et al. (2008) noted that there is still uncertainty about actual physical exertion at an activity level because of the way some source studies grouped activities (e.g., grouping walking with running). Uncertainty was also reduced by using, wherever possible, studies that documented all activities over a multi-day period rather than studies that considered only a few hours of behavior. Nevertheless, there is some uncertainty in combining data from disparate studies and in assigning ventilation rates to activities that are not described by energy expenditure levels. In particular, interpolations and extrapolations were used to fill in minute volume data gaps and may have resulted in overestimates or underestimates. For example, minute volume data for some activity levels in toddlers and children were considered insufficient to adequately characterize their minute volumes.

### 3.4.3 Daily Breathing Rate Estimates Based on Energy Expenditure

As discussed above, Layton (1993) developed a mathematical equation to estimate daily breathing rates based on energy expenditure. The paper also presented examples of breathing rates that had been derived using this method.

#### 3.4.3.1 Layton (1993)

Layton took three approaches to estimating breathing rates from energy estimates. The first approach used the U.S.D.A.'s National Food Consumption Survey (1977-78) data to estimate energy (caloric) intake. The National Food Consumption Survey used a retrospective questionnaire to record three days of food consumption by individuals in households across the nation, and across all four seasons. Layton recognized that food intake is underreported for individuals 9 years of age and older in these surveys and therefore adjusted the reported caloric intake for these ages. These data are no longer the most current population based energy intake data available. Further, the breathing rates are not normalized to body weight.

The second approach to estimating breathing rates multiplied the BMR estimated for a given age-gender group by the estimated ratio of energy intake to basal metabolic rate (EFD/BMR) for that age-gender group. The BMR can be determined as a linear function of body weight, after accounting for gender and age. An activity multiplier can then be applied which is derived from previously reported ratios of daily food intake to BMR. The advantages of this approach include linking breathing rates to BMR, which is valuable since breathing rates are considered to be determined primarily by BMR.

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However, the BMR for each age-gender group was calculated from equations derived from empirical but non-representative data. Further, these data were collected using techniques that may be outdated (e.g., for the 0-3 year age group, 9 of the 11 studies were conducted between 1914 and 1952). These data may no longer be representative of the current population. The EFD/BMR ratios for males and females over 18 years of age were estimated from data collected over one year in one study while those for other age groups were estimated based on the consistency of the value in calculating energy expenditures similar to other studies. Average body weights do not capture the variability of body weights in the population. Thus the BMR values may not be as accurate as current technology can provide nor are they representative of the population.

Layton's third approach to calculate daily breathing rates involves the metabolic equivalent (MET) approach, which is a multiple of the BMR and reflects the proportional increase in BMR for a specific activity. For example, the MET for standing is 1.5 (i.e., 1.5\*BMR), and the MET for cycling and swimming is 5.3. Layton categorized METs into 5 levels (from light activity with a MET = 1 to very strenuous activities with a MET = 10). MET levels were then assigned to each activity in a study that had categorized activities by energy expenditure level and recorded the time study participants spent at each activity. The energy expended at each activity was converted to a breathing rate and then summed over the day to give a daily breathing rate. However, the time-activity data used in this approach were only available for ages over 18 years.

The results of Layton's approaches are presented in Table 3.10. Layton did not report statistical distributions of the breathing rates that he derived. Other limitations, for our purposes, are that the breathing rates in Table 3.6 are not representative of the current U.S. population, are not normalized to body weight, and were for broad age ranges. In addition, no distributions were reported in the paper.

**Table 3.10. Layton (1993) Estimates of Breathing Rate Based on Caloric and Energy Expenditure**

Method	Breathing Rate – Men m <sup>3</sup> /day	Breathing Rate – Women m <sup>3</sup> /day
Time-weighted average lifetime breathing rates based on food intake	14	10
Average daily breathing rates based on the ratio of daily energy intake to BMR	13-17 (over 10 years of age)	9.9-12 (over 10 years of age)
Breathing rates based on average energy expenditure	18	13

Finley et al. (1994) presented probability distributions for several exposure factors, including inhalation rates. Based on the data Layton used to derive point estimates via his third approach (i.e., with energy expenditure equivalent to a multiple of BMR), Finley



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et al. (1994) expanded on Layton's results to develop a probability distribution for breathing rate for several age groups (Table 3.11).

**Table 3.11. Selected Distribution Percentiles from Finley et al. (1994) for Breathing Rates by Age**

Age Category (years)	Percentile (m <sup>3</sup> /day)		
	50th	90th	95th
<3	4.7	6.2	6.7
3 -10	8.4	10.9	11.8
10 – 18	13.1	17.7	19.3
18 – 30	14.8	19.5	21.0
30 – 60	11.8	15.4	16.7
>60	11.9	15.6	16.7

Because Finley largely used the same data as Layton to develop breathing rate distributions, the same limitations apply.

### 3.4.3.2 Arcus-Arth and Blaisdell (2007)

Arcus-Arth and Blaisdell (2007) derived daily breathing rates for narrow age ranges of children and characterized statistical distributions for these rates. The rates were derived using the metabolic conversion method of Layton (1993) and energy intake data (calories consumed per day) from the Continuing Survey of Food Intake of Individuals (CSFII) 1994–1996, 1998 conducted by the USDA (2000). The CSFII provided the most recent population based energy data at the time. The CSFII dataset consisted of two days of recorded food intake for each individual along with self-reported body weights. The individual data allowed for the assessment of interindividual variability. Because one-day intakes may be less typical of average daily intake, the two-day intakes were averaged to obtain a better estimate of typical intake available from these limited repeated measures. The CSFII energy intakes were weighted to represent the U.S. population. The rates were intended to be more representative of the current U.S. children's population than prior rates that had been derived using older or non-representative data.

The premise for Layton's equation is that breathing rate is proportional to the oxygen required for energy expenditure. While there are no energy expenditure data that are representative of the population, there are population representative energy intake data (i.e., calories consumed per day). Energy intake data can be used in Layton's equation when energy intake equals energy expenditure. Energy intake is equal to energy expended when the individual is neither gaining nor losing body weight (i.e., all energy intake is expended). Because the percentage of daily energy intake that is needed to result in a discernible change in body weight for adults is very small, it can be assumed that for adults energy intake equals energy expended. However, in young infants, a significant portion of their daily energy intake is deposited in new tissue (e.g., adipose, bone and muscle). The deposited energy is referred to as the energy cost of deposition (ECD). Therefore, the daily energy intake needed for normal growth of infants is used

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both for energy expenditure (EE) and ECD (i.e., energy intake = EE + ECD). If the breathing rate is to be estimated by the caloric intake approach for growing infants, the ECD must be subtracted from the total daily energy intake in order to determine an accurate breathing rate.

Accounting for the ECD is primarily important for newborn infants (Butte et al., 1990; Butte et al., 2000). For example, at ages 3 and 6 months the energy cost for growth constituted 22 and 6%, respectively, of total energy requirements. In older children the energy cost is only 2-3% of total energy requirements. By the age of 25 years in males and 19 years in females, the ECD has essentially decreased to zero and remains at that level throughout adulthood (Brochu et al., 2006a).

Because Layton's equation requires only energy expenditure to derive the breathing rate, a small modification to Eq. 3-5 is made when deriving the infant breathing rate using the caloric intake approach:

$$VE = H \times VQ \times (TDEI - ECD) \times 10^{-3} \quad (\text{Eq. 3-6})$$

where:

TDEI = Total daily energy intake (kcal/day)  
ECD = Daily energy cost of deposition (kcal/day)

Arcus-Arth and Blaisdell (2007) subtracted the ECD from the TDEI to give a more accurate estimate of energy expended. The ECD for each month of age for infants up to 11 months of age was estimated from Scrimshaw et al. (1996). Although there is typically a burst of growth just prior to and during adolescence, Arcus-Arth and Blaisdell did not subtract the ECD during adolescence because investigators considered it negligible relative to total energy intake (Spady, 1981; Butte et al., 1989).

Layton (1993) reported on the bias associated with underreporting of dietary intakes by older children. He calculated a correction factor for this bias (1.2) and multiplied the daily energy intake of each child nine years of age and older by 1.2. Arcus-Arth and Blaisdell, having evaluated the literature and finding Layton's adjustment to be reasonable, likewise multiplied daily energy intake of adolescent ages by 1.2.

Arcus-Arth and Blaisdell (2007) also evaluated the numerical values used by Layton for the VQ and H conversion factors in his metabolic equation. Their estimated value for the conversion factor H was similar to that found by Layton. However, they found data in the literature indicating that other values of VQ may be more specific to children than those used by Layton (see Table 3.5). The VQ values Arcus-Arth and Blaisdell calculated were used to derive breathing rates.

Non-normalized (L/day) and normalized (L/kg-day) breathing rates shown in Tables 3.8a-e) were derived for both children and adults from the CSFII dataset using the methodology described in Arcus-Arth and Blaisdell (2007). Briefly, the CSFII used a multistage complex sampling design to select individuals to be surveyed from the population. The CSFII recommended using a Jackknife Replication (JK) statistical



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method (Gossett et al., 2002; Arcus-Arth and Blaisdell, 2007), which is a nonparametric  
technique that is preferred to analyze data from multistage complex surveys.

For each age group, the mean, standard error of the mean, percentiles (50th, 90th, and  
95th) of non-normalized and normalized breathing rates, derived as described, are  
presented in Tables 3.12a and 3.12b, respectively. Child breathing rates are for males  
and females combined, except for the 9-18 yr adolescent age group breathing rates  
shown at the bottom of the tables.

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**TABLE 3.12a. Non-Normalized Daily Breathing Rates (L/Day) for  
Children and Adults Using CSFII Energy Intake and Layton's Equation**

Age	Sample Size Nonweighted	Mean	SEM	50%-ile	90%-ile	95%-ile	SE of 95%-ile
<b>Age (months)</b>	<b>Infancy</b>						
0-2	182	3630	137	3299	5444 <sup>1</sup>	7104 <sup>1</sup>	643
3-5	294	4920	135	4561	6859	7720	481
6-8	261	6089	149	5666	8383	9760	856
9-11	283	7407	203	6959	10,212	11,772	**
0-11	1020	5703	98	5323	8740	9954	553
<b>Age (years)</b>	<b>Children</b>						
1	934	8770	75	8297	12,192	13,788	252
2	989	9758	100	9381	13,563	14,807	348
3	1644	10,642	97	10,277	14,586	16,032	269
4	1673	11,400	90	11,046	15,525	17,569	234
5	790	12,070	133	11,557	15,723	18,257	468
6	525	12,254	183	11,953	16,342	17,973	868
7	270	12,858	206	12,514	16,957	19,057	1269
8	253	13,045	251	12,423	17,462	19,019	1075
9	271	14,925	286	14,451	19,680	22,449 <sup>1</sup>	1345
10	234	15,373	354	15,186	20,873	22,898 <sup>1</sup>	1021
11	233	15,487	319	15,074	21,035	23,914 <sup>1</sup>	1615
12	170	17,586	541	17,112	25,070 <sup>1</sup>	29,166 <sup>1</sup>	1613
13	194	15,873	436	14,915	22,811 <sup>1</sup>	26,234 <sup>1</sup>	1106
14	193	17,871	615	15,896	25,748 <sup>1</sup>	29,447 <sup>1</sup>	4382
15	185	18,551	553	17,913	28,110 <sup>1</sup>	29,928 <sup>1</sup>	1787
16	201	18,340	536	17,370	27,555	31,012	2065
17	159	17,984	957	15,904	31,421 <sup>1</sup>	36,690 <sup>1</sup>	**
18	135	18,591	778	17,339	28,800 <sup>1</sup>	35,243 <sup>1</sup>	4244
0<2	1954	7502	75	7193	11,502	12,860	170
2<16	7624	14,090	120	13,128	20,993	23,879	498
<b>Adolescent Boys</b>							
9-18	983	19,267	278	17,959	28,776	32,821	1388
<b>Adolescent Girls</b>							
9-18	992	14,268	223	13,985	21,166	23,298	607

<sup>1</sup> Value may be less statistically reliable than other estimates due to small cell size

\*\* Unable to calculate



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**Table 3.12b. Normalized Daily Breathing Rates (L/kg-Day) for Children and Adults Using CSFII Energy Intake and Layton's Equation**

Age	Sample Size Nonweighted	Mean	SEM	50%-ile	90%-ile	95%-ile	SE of 95%-ile
<b>Age (months)</b>	<b>Infancy</b>						
0-2	182	839	42	725	1305	1614	290
3-5	294	709	24	669	1031	1232	170
6-8	261	727	16	684	1017	1136	73
9-11	283	760	20	710	1137	1283	96
0-11	1020	751	11	694	1122	1304	36
<b>Age (years)</b>	<b>3.4.3.3 Children</b>						
1	934	752	7	716	1077	1210	33
2	989	698	9	670	986	1107	31
3	1644	680	6	648	966	1082	18
4	1673	645	5	614	904	1011	19
5	790	602	7	587	823	922	25
6	525	550	10	535	765	849	28
7	270	508	9	495	682	788	39
8	253	458	11	439	657	727	37
9	271	466	11	445	673	766 <sup>1</sup>	21
10	234	438	12	425	661	754 <sup>1</sup>	38
11	233	378	9	350	566	616 <sup>1</sup>	32
12	170	373	13	356	545 <sup>1</sup>	588 <sup>1</sup>	46
13	194	311	12	289	459 <sup>1</sup>	588 <sup>1</sup>	55
14	193	313	12	298	443 <sup>1</sup>	572 <sup>1</sup>	92
15	185	299	10	285	461 <sup>1</sup>	524 <sup>1</sup>	25
16	201	278	10	258	434	505	46
17	159	276	15	251	453 <sup>1</sup>	538 <sup>1</sup>	**
18	135	277	10	244	410 <sup>1</sup>	451 <sup>1</sup>	42
0<2	1954	752	6	706	1094	1241	24
2<16	7624	481	3	451	764	869	6
<b>Adolescent Boys</b>							
9-18	983	367	5	343	567	647	14
<b>Adolescent Girls</b>							
9-18	992	315	6	288	507	580	24

<sup>1</sup> Value may be less statistically reliable than other estimates due to small cell size

\*\* Unable to calculate

Ideally, breathing rates and other variates used in risk assessment should be as representative as possible of the exposed population. Population representative daily energy (caloric) intake can be estimated from national food consumption surveys, such as the CSFII and the National Health and Nutrition Examination Survey (NHANES). These surveys can be analyzed to provide results that are representative of the nation

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and of several subpopulations, including narrow age groups. The sample sizes are large with these surveys and thus provide relatively robust results, which is of particular concern for the tails of probability distributions.

Limitations for the CSFII energy intake-derived breathing rates include the underreporting of food intakes discussed above. Underestimation of energy intake leads to underestimation of breathing rates. Another limitation is that only two days of food intake data had been collected. Although collection of two consecutive days of food intake is an improvement over earlier collections of one day of food intake, the repeated measures in the survey were still too limited to reduce the impact of daily variations in food intake and would tend to overestimate the upper and lower percentiles. Typical intake is not captured by the caloric intake of two days, and breathing rate and dietary intake on any given day are not tightly coupled.

### 3.4.3.4 US EPA (2009) Metabolic Equivalent-Derived Daily Breathing Rate Estimates

Similar to one of the approaches Layton (1993) used to estimate the breathing rate, U.S. EPA employed a metabolic equivalent (METs) approach for estimating breathing rates. This method determines daily time-weighted averages of energy expenditure (expressed as multipliers of the basal metabolic rate) across different levels of physical activity. METs provide a scale for comparing the physical intensities of different activities. Recent energy expenditure data including the 1999-2002 NHANES and U.S. EPA's Consolidated Human Activity Database (CHAD) were used that considers variability due to age, gender, and activities. NHANES (CDC, 2000; 2002) was used as the source of body weight data, and CHAD (U.S. EPA, 2002) was the central source of information on activity patterns and METs values for individuals. The 4-year sampling weights assigned to the individuals within NHANES 1999-2002 were used to weight each individual's data values in the calculations of these statistics.

Data were grouped into age categories and a simulated 24-hour activity pattern was generated by randomly sampling activity patterns from the set of participants with the same gender and age. Each activity was assigned a METs value based on statistical sampling of the distribution assigned by CHAD to each activity code. Using statistical software, equations for METs based on normal, lognormal, exponential, triangular and uniform distributions were generated as needed for the various activity codes. The METs values were then translated into energy expenditure (EE) by multiplying the METs by the basal metabolic rate (BMR), which was calculated as a linear function of body weight. The VO<sub>2</sub> was calculated by multiplying EE by H, the volume of oxygen consumed per unit energy.

The inhalation rate for each activity within the 24-hour simulated activity pattern for each individual was then estimated as a function of VO<sub>2</sub>, body weight, age, and gender. Following this, the average inhalation rate was calculated for each individual for the entire 24-hour period, as well as for four separate classes of activities based on METs value (sedentary/passive [METs less than or equal to 1.5], light intensity [METs greater than 1.5 and less than or equal to 3.0], moderate intensity [METs greater than 3.0 and less than or equal to 6.0], and high intensity [METs greater than 6.0]. Data for



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individuals were then used to generate summary tables with distributional data based on gender and age categories (Tables 3.13a and 3.13b). No parametric distributional assumptions were placed on the observed data distributions before these statistics were calculated.

**Table 3.13a. US EPA (2009) Metabolically-Derived Daily Breathing Rate (m<sup>3</sup>/Day in Males and Females Unadjusted For Body Weight**

Age Category (years)	Means and Percentiles in m <sup>3</sup> /day							
	Males				Females			
	Mean	50th	90th	95th	Mean	50th	90th	95th
Birth to <1	8.76	8.70	11.93	12.69	8.53	8.41	11.65	12.66
1	13.49	13.11	17.03	17.89	13.31	13.03	17.45	18.62
2	13.23	13.19	16.27	17.71	12.74	12.60	15.58	16.37
3 to <6	12.65	12.58	14.63	15.41	12.16	12.02	14.03	14.93
6 to <11	13.42	13.09	16.56	17.72	12.41	11.95	15.13	16.34
11 to <16	15.32	14.79	19.54	21.21	13.44	13.08	16.25	17.41
16 to <21	17.22	16.63	21.94	23.38	13.59	13.20	17.12	18.29
21 to <31	18.82	18.18	24.57	27.14	14.57	14.10	19.32	21.14
31 to <41	20.29	19.83	26.77	28.90	14.98	14.68	18.51	20.45
41 to <51	20.93	20.60	26.71	28.37	16.20	15.88	19.91	21.35
51 to <61	20.91	20.41	27.01	29.09	16.18	15.90	19.93	21.22
61 to <71	17.94	17.60	21.78	23.50	12.99	12.92	15.40	16.15

**Table 3.13b. US EPA (2009) Metabolically-Derived Daily Breathing Rate (m<sup>3</sup>/Kg-Day) in Males and Females Adjusted for Body Weight**

Age Category (years)	Means and Percentiles in m <sup>3</sup> /kg-day							
	Males				Females			
	Mean	50th	90th	95th	Mean	50th	90th	95th
Birth to <1	1.09	1.09	1.26	1.29	1.14	1.13	1.33	1.38
1	1.19	1.17	1.37	1.48	1.20	1.18	1.41	1.46
2	0.95	0.94	1.09	1.13	0.95	0.96	1.07	1.11
3 to <6	0.70	0.69	0.87	0.92	0.69	0.68	0.88	0.92
6 to <11	0.44	0.43	0.55	0.58	0.43	0.43	0.55	0.58
11 to <16	0.28	0.28	0.36	0.38	0.25	0.24	0.31	0.34
16 to <21	0.23	0.23	0.28	0.30	0.21	0.21	0.27	0.28
21 to <31	0.23	0.22	0.30	0.32	0.21	0.20	0.26	0.28
31 to <41	0.24	0.23	0.31	0.34	0.21	0.20	0.27	0.30
41 to <51	0.24	0.23	0.32	0.34	0.22	0.21	0.28	0.31
51 to <61	0.24	0.24	0.30	0.34	0.22	0.21	0.28	0.30
61 to <71	0.21	0.20	0.24	0.25	0.18	0.17	0.21	0.22

US EPA (2009) described the strengths and weaknesses of their approach. The strengths of this metabolically-derived method include nationally representative data sets with a large sample size, even within the age and gender categories. This approach also yields an estimate of ventilation rate that is a function of VO<sub>2</sub> rather than

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an indirect measure of oxygen consumption such as VQ as other researchers have used.

Another strength is that the breathing rates included a BMR component which had been derived from NHANES body weights and to which NHANES sampling weights were linked. The BMR component of the breathing rates was representative of the population because of the sampling weights. That is, the degree of association between body weight and breathing rate was incorporated into the distribution of breathing rate distributions.

However, the degree of association between breathing rate and other characteristics (e.g., race, geographic region) was not incorporated into the distributions (US EPA, 2009). These non-body weight characteristics can be highly associated with variability in activity patterns. Although BMR may contribute the greatest percent to the quantitative breathing rate value, the variability in breathing rates is most likely driven by differing levels of physical activity by different persons. Because the activity data was collected over a 24-hour period, day-to-day variability is not well characterized (US EPA, 2009; US EPA, 2011). The outcome is that the simulated 24-hour activity pattern assigned to an NHANES participant is likely to contain a greater variety of different types of activities than one person may typically experience in a day.

Furthermore, because the simulated activity profiles did not consider possible limits on the "maximum possible METS value" that would account for previous activities, ventilation rates may be overestimated (US EPA, 2009). This happens, in part, because the MET approach does not take into consideration correlations that may exist between body weight and activity patterns. For example, high physical activity levels can be associated with individuals of high body weight, leading to unrealistically high inhalation rates at the upper percentiles levels (US EPA 2011). The result is that the central tendency of the MET breathing rates may be fairly representative of the population, but the breathing rates may not appropriately capture the variability within the population. This limitation was probably most evident in children <3 years of age where the data used to calculate BMR values may be less representative of the current population (US EPA, 2009).

### 3.4.4 Daily Breathing Rate Estimates from Doubly Labeled Water Measurements

In another method used to quantify human energy expenditure, published doubly-labeled water (DLW) energy expenditure data can be used in conjunction with Layton's equation to convert metabolic energy to daily inhalation rates (Brochu et al., 2006a; 2006b; Stifelman, 2007). In the DLW method, isotopically labeled water containing <sup>2</sup>H<sub>2</sub>O (i.e., heavy water) and H<sub>2</sub><sup>18</sup>O is given orally to the study participant. The isotopes then distribute in the body and disappear from body water pools by dilution from new unlabeled water into the body, by the excretion of the labeled isotope from the body, or by the production of CO<sub>2</sub>. The difference in disappearance rates between the two isotopes represents CO<sub>2</sub> production over an optimal period of 1–3 half-lives (7 to 21 days in most human subjects) of the labeled water. CO<sub>2</sub> production is an indirect



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measure of metabolic rate and can be converted into units of energy using knowledge of the chemical composition of the foods consumed.

A major advantage of the DLW method is that it provides an index of total energy expenditure over a period of 1 to 3 weeks, which is a more biologically meaningful period of time compared to the other methods, and can reduce the impact of daily variations in physical activity or food intake (IOM, 2005). In addition, the DLW method is non-invasive, requiring only that the subject drink the stable isotopes and provide at least three urine samples over the study period. Thus, measurements can be made in subjects leading their normal daily lives (i.e., free-living individuals). The DLW method is considered to be the most accurate method for determining the breathing rate of an individual (IOM, 2005).

A disadvantage is that the DLW method is expensive to undertake, and that essentially all the available studies investigated different age ranges but the subjects were not randomly selected to be representative of populations. However, measurements are available in a substantial number of men, women and children whose ages, body weights, heights and physical activities varied over wide ranges.

DLW measurements of total daily energy expenditures (TDEE) include basal metabolism, physical activity level, thermogenesis, and the synthetic cost of growth (Butte et al., 2000). The synthetic cost of growth is the energy that is expended to synthesize the molecules that will be stored. This is different from the energy deposited for growth (ECD), which is the energy intake that is deposited in the body for new tissue. The ECD is an important factor in newborn infants and is not accounted for in DLW measurements. Thus, the derivation of breathing rates using Layton's equation does not require an adjustment to subtract out the ECD to determine TDEE, as was necessary for deriving the breathing rates of infants by the caloric intake approach (Section 3.5.3.2).

### 3.4.4.1 Brochu et al. (2006a,b)

Brochu et al. (2006a) calculated daily inhalation rates for 2210 individuals aged 3 weeks to 96 years using DLW energy expenditure data mainly from the IOM (2005). The IOM database is a compilation of DLW-derived energy expenditure results and other raw data from individuals collected from numerous studies. Breathing rates were estimated for different groups of individuals including healthy normal-weight males and females with normal active lifestyles (n=1252), overweight/obese individuals with normal active lifestyles (n=679), individuals from less affluent societies (n=59), underweight adults (n=34), and individuals during various extreme physical activities (n=170). Normal weight adults age 20 yrs and above were categorized as having BMIs between 18.5 and 25 kg/m<sup>2</sup>. Overweight/obese adults had BMIs above 25 kg/m<sup>2</sup>. For children and teenagers aged 4 to 19 yrs, BMIs corresponding to the 85<sup>th</sup> percentile or below were considered normal. The breathing rate data were presented as 5<sup>th</sup>, 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup>, and 99<sup>th</sup> percentile values as well as mean and SEM values for the derived inhalation rates for narrow age groups ranging from 1 month to 96 years. A partial

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listing of the breathing rate percentiles for normal weight individuals by age group are shown in Tables 3.14a and 3.14b.

**Table 3.14a. Means and Percentiles of Daily Breathing Rates (in m<sup>3</sup>/Day) for Free-Living Normal-Weight Males and Females Derived from DLW Measurements by Brochu et al. (2006a)**

Age Category (years)	Means and Percentiles in m <sup>3</sup> /day								
	Males <sup>a</sup>					Females <sup>a</sup>			
	N	Mean	50 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	N	Mean	50 <sup>th</sup>	90 <sup>th</sup>
0.22 to <0.5	32	3.38	3.38	4.30	4.57	53	3.26	3.26	4.11
0.5 to <1	40	4.22	4.22	5.23	5.51	63	3.96	3.96	4.88
1 to <2	35	5.12	5.12	6.25	6.56	66	4.78	4.78	6.01
2 to <5	25	7.60	7.60	9.25	9.71	36	7.06	7.06	8.54
5 to <7	96	8.64	8.64	10.21	10.66	102	8.22	8.22	9.90
7 to <11	38	10.59	10.59	13.14	13.87	161	9.84	9.84	12.00
11 to <23	30	17.23	17.23	21.93	23.26	87	13.28	13.28	16.61
23 to <30	34	17.48	17.48	21.08	22.11	68	13.67	13.67	16.59
30 to <40	41	16.88	16.88	20.09	21.00	59	13.68	13.68	15.94
40 to <65	33	16.24	16.24	19.67	20.64	58	12.31	12.31	14.96
65 to <96	50	12.96	12.96	16.13	17.03	45	9.80	9.80	12.58

<sup>a</sup> Percentiles based on a normal distribution assumption for all age groups

**Table 3.14b. Means and Percentiles of Daily Breathing Rates (in m<sup>3</sup>/kg-Day) for Free-Living Normal-Weight Males and Females Derived from DLW Measurements by Brochu et al. (2006a)**

Age Category (years)	Mean and Percentiles in m <sup>3</sup> /kg-day								
	Males <sup>a</sup>					Females <sup>a</sup>			
	N	Mean	50 <sup>th</sup>	90 <sup>th</sup>	95 <sup>th</sup>	N	Mean	50 <sup>th</sup>	90 <sup>th</sup>
0.22 to <0.5	32	0.509	0.509	0.627	0.661	53	0.504	0.504	0.623
0.5 to <1	40	0.479	0.479	0.570	0.595	63	0.463	0.463	0.545
1 to <2	35	0.480	0.480	0.556	0.578	66	0.451	0.451	0.549
2 to <5	25	0.444	0.444	0.497	0.512	36	0.441	0.441	0.532
5 to <7	96	0.415	0.415	0.475	0.492	102	0.395	0.395	0.457
7 to <11	38	0.372	0.372	0.451	0.474	161	0.352	0.352	0.431
11 to <23	30	0.300	0.300	0.360	0.377	87	0.269	0.269	0.331
23 to <30	34	0.247	0.247	0.297	0.311	68	0.233	0.233	0.287
30 to <40	41	0.237	0.237	0.281	0.293	59	0.235	0.235	0.279
40 to <65	33	0.230	0.230	0.284	0.299	58	0.211	0.211	0.257
65 to <96	50	0.188	0.188	0.228	0.239	45	0.172	0.172	0.220

<sup>a</sup> Percentiles based on a normal distribution assumption for all age groups

Comparing the largest subgroups (i.e., overweight/obese individuals vs. normal-weight individuals), Brochu et al. observed that overweight/obese individuals inhaled between 0.8 to 3.0 m<sup>3</sup> more air per day than normal-weight individuals, but their physiological daily breathing rates are 6 to 21% lower than that of their leaner counterparts when



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expressed in  $\text{m}^3/\text{kg}\cdot\text{day}$ . Also of interest is that the daily inhalation rates (in  $\text{m}^3/\text{kg}\cdot\text{day}$ ) of newborns and normal-weight infants aged 2.6 to less than 6 months are 2.1 to 5.1 times higher than those of normal-weight and overweight/obese adults aged 18 to 96 years with normal lifestyles.

Besides the lack of randomly selected individuals representative of a population for estimating energy expenditure, much of the DLW data used to derive the breathing rate percentiles relied heavily on adults with sedentary lifestyles (Black et al., 1996). Occupations of many participants included professionals, white collar workers or other sedentary occupations, and almost no participants were in manual labor occupations that are known to result in higher breathing rates. Although a small group of athletic individuals appear to be included in the DLW database by Brochu et al. (2006a), it was suggested by Black et al. (1996) that not enough participants involved in manual labor are represented in the DLW database. This may result in breathing rate percentiles that are lower than what might be obtained from a population-based study. Nevertheless, as noted above, the DLW method provides an index of total energy expenditure over a period of 1 to 3 weeks, which is a better determinant of long-term breathing rate than other methods described that rely on 1 to 2 days of energy intake or expenditure to estimate long-term breathing rates. Thus, the DLW method is considered to be the most accurate method for determining an average daily breathing rate of a free-living individual.

### 3.4.4.2 Stifelman (2007)

Using energy expenditure data based on extensive DLW measurements from two sources (FAO, 2004a; 2004b; IOM, 2005), Stifelman (2007) calculated inhalation rates with Layton's equation for long-term physical activity levels categorized as active to very active individuals. The breathing rate data are presented in Table 3.15 in one year age groupings for infants and children and in three age groupings for adults up to age 70.

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**TABLE 3.15. Equivalent Breathing Rates Based on Institute of Medicine Energy Expenditure Recommendations for Active and Very Active People**

Age (Years)	Inhalation rate – males active – very active ( $\text{m}^3/\text{day}$ )	Inhalation rate – females active – very active ( $\text{m}^3/\text{day}$ )
<1	3.4	3.4
1	4.9	4.9
2	5.9	5.5
3	8.4 – 9.5	7.9 – 9.3
4	8.8 – 10.1	8.3 – 9.9
5	9.4 – 10.7	8.8 – 10.5
6	9.8 – 11.3	9.3 – 11.1
7	10.4 – 11.9	9.7 – 11.6
8	10.9 – 12.6	10.2 – 12.3
9	11.5 – 13.3	10.7 – 12.8
10	12.1 – 14.0	11.1 – 13.4
11	12.9 – 14.9	11.7 – 14.1
12	13.7 – 15.9	12.3 – 14.9
13	14.8 – 17.2	12.9 – 15.6
14	16.0 – 18.5	13.2 – 16.0
15	17.0 – 19.8	13.3 – 16.2
16	17.8 – 20.7	13.4 – 16.3
17	18.2 – 21.2	13.3 – 16.2
18	18.6 – 21.5	13.2 – 16.1
19-30	17.0 – 19.7	13.4 – 15.2
31-50	16.2 – 18.9	12.8 – 14.5
51-70	15.1 – 17.8	12.0 – 13.8

Physical activity levels (PALs) were categorized into four levels of activity by the IOM, two of which were the active and very active levels. A PAL is the ratio of total energy expended (TEE) divided by the basal metabolic rate, defined as the minimum level of energy needed to support essential physiologic functions in free-living people. Stifelman (2007) also calculated the breathing rate associated with each level, as shown in Table 3.16. It is believed unlikely that the PAL "very active" category (i.e., PAL range 1.9-2.5) would be exceeded over a duration of years. PALs exceeding the IOM and FAO ranges are generally not sustainable over long periods of time, but can be quite high for limited periods of time (Westerterp, 2001). For example, highly trained athletes during periods of high-intensity training competition, including cross-country skiers and Tour de France bicycle racers, can reach a PAL of 3.5-5.5.

The IOM and FAO PALs describe a range of 1.4-2.5 in accord with ranges of sustainable PALs described by others, including people actively engaged in non-mechanized agriculture, deployed military personnel, and long-distance runners (Stifelman, 2007; Westerterp, 2001; Westerterp, 1998; Black et al., 1996; Haggerty et al., 1994). Individuals among the general population exceeding PALs of 2-2.5 for long



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periods of time are expected to experience negative energy balance (i.e., weight loss) mainly because an important limit to sustainable metabolic rate is the energy intake (Westerterp 1998; Westerterp, 2001).

**TABLE 3.16. IOM Physical Activity Categories, Associated Breathing Rates and Equivalent Walking Distance**

PAL Category	PAL midpoint value (range)	Breathing rate midpoint value	Equivalent walking distance (km/day) <sup>a</sup>
Sedentary	1.25 (1.0-1.39)	14.4 m <sup>3</sup> /day	0
Low active	1.5 (1.4-1.59)	15.7 m <sup>3</sup> /day	3.5
Active	1.75 (1.6-1.89)	17.3 m <sup>3</sup> /day	11.7
Very active	2.2 (1.9-2.5)	19.4 m <sup>3</sup> /day	26.9

<sup>a</sup> Equivalent walking distance in addition to energy expended during normal daily life, based on a 70 kg adult walking 5-6 km per hour. Adapted from Stifelman (2007) and Brooks et al. (2004)

Based on the DLW data, Stifelman's analysis indicates that human energy expenditure occurs within a fairly narrow range of activity levels (PAL in the range of 1.4-2.5), and that for breathing rates estimated by the DLW method, a breathing rate of 19.4 m<sup>3</sup>/day (equivalent to a PAL of 2.2) is near the maximum energy expenditure that can be sustained for long periods of time in adults. This finding supports the idea that the traditional 20 m<sup>3</sup>/day is an upper end breathing rate (Snyder et al. (1975).

The narrow range in breathing rates was found to be consistent with the daily energy expenditure estimated from the adult breathing rate distribution in Marty et al. (2002) where the range is slightly over 2-fold between the 5<sup>th</sup> and 95<sup>th</sup> percentile in Table 3.7. A roughly 2-fold range in between the 5<sup>th</sup> and 95<sup>th</sup> percentiles is also exhibited in the MET-derived breathing rates by US EPA (2009).

### 3.4.4.3 Limits of Sustainable Breathing Rates Derived from PALs

As noted above, DLW studies have shown that a PAL of approximately 2 to 2.5 in the general population of adults is the limit of sustainable energy expenditure for long periods of time (Westerterp, 2001; IOM, 2005; Stifelman, 2007). The PAL of novice athletes training for endurance runs and soldiers during field training falls within this range (Westerterp, 1998; 2001). The PAL has been found to be twice the upper limit (PALs = 3.5 to 5.5) in professional endurance athletes in the most demanding sports (cross-country skiing and cycling) during training and competition. The PALs of these professional athletes are in the right tail of the breathing rate distribution of the general population (Westerterp, 2001). However, the high PALs are not expected to be sustained at these high levels when averaged over years.

Knowing the average basal energy expenditure (BEE) for adults and the upper range of daily energy expenditure, the upper limit of long-term daily breathing rates for the general population can be estimated from Layton's equation (eq. 3.1). Marty et al. (2002) observed that the 95<sup>th</sup> percentile breathing rate should be found within this PAL range of 2 to 2.5. Thus, it might be reasonable to compare the 95<sup>th</sup> percentile adult

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breathing rate calculated by other methods to the breathing rates derived from an upper limit PAL range of 2 to 2.5.

Table 3.17 show the expected breathing rates of adults in a PAL range of 2.0 to 2.5. The mean BEE in kcal/day for the adult age groups is obtained from Brooks et al. (2004). Mean weights for the adult age groups were also obtained from this reference in order to convert breathing rates in L/day to L/kg-day. The results from the DLW-derived energy expenditure data suggest that for normal weight adults (i.e., adults with BMIs within the healthy range of 18.5 to 25), the upper limit of breathing rates for males and females combined would be 16,629 to 20,787 L/day, or 256 to 320 L/kg-day.

**Table 3.17. Description of the Normative Adult DLW Data from Brooks et al. (2004) for Persons with a Healthy BMI, and the Resulting Calculations of Breathing Rate Within the Sustainable PAL Range of 2.0 to 2.5**

	Age years	n	Mean BEE kcal/d	TEE limits <sup>a</sup> kcal/d	Breathing rate L/d	Mean weight kg	Breathing rate L/kg-d
Males	19-30	48	1769	3538 - 4423	20,060 - 25,078	71.0	283 - 353
	31-50	59	1675	3350 - 4188	18,995 - 23,746	71.4	266 - 333
	51-70	24	1524	3048 - 3810	17,282 - 21,603	70.0	247 - 309
	19-70 <sup>b</sup>	-	-	-	18,582 - 23,229	-	263 - 328
Females	19-30	82	1361	2722 - 3403	15,434 - 19,295	59.3	260 - 325
	31-50	61	1322	2644 - 3305	14,991 - 18,739	58.6	256 - 320
	51-70	71	1226	2452 - 3065	13,903 - 17,379	59.1	235 - 294
	19-70 <sup>b</sup>	-	-	-	14,675 - 18,344	-	249 - 311
Males/females <sup>c</sup>	19-70	-	-	-	16,629 - 20,787	-	256 - 320

<sup>a</sup> Sustainable PAL range (2.0 to 2.5) multiplied by mean BEE equals the daily total energy expenditure (TEE) that can be sustained over long periods of time.

<sup>b</sup> 19-70 yr breathing rates calculated as a weighted average from the three smaller age groupings

<sup>c</sup> Average breathing rates of males and females combined, assuming each gender represents 50% of the population.

Although the PAL limits were estimated for adults, it might also be useful to estimate high-end sustainable breathing rates for adolescents using the same assumption that a PAL of 2 to 2.5 represents the limit of sustainable energy expenditure over a long-term period. Some of the highest daily breathing rates in L/day were calculated for adolescents from the CSFII caloric intake data (Arcus-Arth and Blaisdell, 2007).

For deriving adolescent breathing rates from the mean BEE in Brooks et al. (2004) for 14-18 year olds, an upper limit of sustainable energy expenditure would be in the range of 3458-4323 kcal/d for males, and 2722-3403 kcal/d for females. Using Layton's equation to derive the breathing rates from these daily energy expenditures, sustainable upper limit breathing rates of 22,221-27,780 L/day for adolescent males, and 18,006-22,511 L/day for adolescent females were calculated. After normalizing for weight using the mean weights for the 14-18 year age groups in Brooks et al. (2004),



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upper range daily breathing rates of 378-472 L/kg-day for males and 332-513 L/kg-day for females were calculated.

### 3.4.5 Compilations of Breathing Rate Data

In the US EPA (2011) Exposure Factors Handbook, ranges of measured breathing rate values were compiled for infants, children and adults by age and sex. Table 3.18 presents the recommended breathing rate values for males and females combined for specific age groups up to age ≥81 yrs based on the average of the inhalation rate data from four recent key studies: Brochu et al. (2006a); U.S. EPA, (2009); Arcus-Arth and Blaisdell, (2007); and Stifelman (2007). The Table represents the unweighted means and 95<sup>th</sup> percentiles for each age group from the key studies. U.S. EPA noted that there is a high degree of uncertainty associated with the upper percentiles, including the 95<sup>th</sup> percentile shown in Table 3.18, thus they should be used with caution. The upper percentiles represent unusually high inhalation rates for long-term exposures, but were included in the handbook to provide exposure assessors a sense of the possible range of inhalation rates for children.

**Table 3.18. US EPA (2011) Recommended Long-Term Exposure (More than 30 Days) Breathing Rate Values for Infants and Children (Males and Females Combined) Averaged From Four Key Studies**

Age Group	Mean m <sup>3</sup> /day	Sources Used for Means	95 <sup>th</sup> Percentile m <sup>3</sup> /day	Sources Used for 95 <sup>th</sup> -ile
Birth to <1 month	3.6	a	7.1	a
1 to <3 months	3.5	a,b	5.8	a,b
3 to <6 months	4.1	a,b	6.1	a,b
6 to <12 months	5.4	a,b	8.0	a,b
Birth to <1 year	5.4	a,b,c,d	9.2	a,b,c
1 to <2 years	8.0	a,b,c,d	12.8	a,b,c
2 to <3 years	8.9	a,b,c,d	13.7	a,b,c
3 to <6 years	10.1	a,b,c,d	13.8	a,b,c
6 to <11 years	12.0	a,b,c,d	16.6	a,b,c
11 to <16 years	15.2	a,b,c,d	21.9	a,b,c
16 to <21 years	16.3	a,b,c,d	24.6	a,b,c
21 to <31 years	15.7	b,c,d	21.3	b,c
31 to <41 years	16.0	b,c,d	21.4	b,c
41 to <51 years	16.0	b,c,d	21.2	b,c
51 to <61 years	15.7	b,c,d	21.3	b,c
61 to <71 years	15.7	b,c,d	18.1	b,c
71 to <81 years	14.2	b,c	16.6	b,c
≥91 years	12.2	b,c	15.7	b,c

a Arcus-Arth and Blaisdell, 2007; b Brochu et al. 2006a;  
c U.S. EPA, (2009) d Stifelman 2007

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### 3.5 OEHHA-Derived Breathing Rate Distributions for the Required Age Groupings Using Existing Data.

The summarized published reports provide breathing rate distributions by month/year of age or in specific age groups, but seldom in age groups applicable to OEHHA's age groupings for cancer risk assessment. However, individual data were obtainable from the CSFII food intake study and the DLW database in the IOM (2005) report, from which breathing rate distributions could be derived in the specific age groups of third trimester, 0<2, 2<9, 2<16, 16<30, and 16-70 years. In addition, the U.S. EPA's breathing rate distributions based on the MET approach, shown in Tables 3.13a and 3.13b, can be merged to obtain the necessary age group breathing rates.

#### 3.5.1 OEHHA-derived breathing rates based on CSFII energy intake data

In Tables 3.19a-e, non-normalized (L/day) and normalized (L/kg-day) breathing rates for the specific OEHHA age groups were derived for both children and adults from the CSFII dataset using the Jackknife Replication statistical method (Arcus-Arth and Blaisdell, 2007). Breathing rates for pregnant women, for determination of third trimester breathing rates, are presented in Section 3.5.4.

In addition, each age group was also fit to a lognormal distribution using Crystal Ball® (Oracle Corp., Redwood Shores, CA, 2009). Crystal Ball® was also used to determine the best parametric model fit for the distribution of breathing rates for each age group. The Anderson-Darling test was chosen over other goodness-of-fit tests available in Crystal Ball® because this test specifically gives greater weight to the tails than to the center of the distribution. OEHHA is interested in the tails since the right tail represents the high-end (e.g., 95<sup>th</sup> percentile) breathing rates.



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**Tables 3.19a-e. Breathing Rate Distributions by Age Group (Males and Females Combined) Derived from CSFII Food Intake Data Using Jackknife Methodology and Parameter Estimates of Log-Normally and Best Fit Distributions**

**Table 3.19a. Breathing Rate Distributions for the 0<2 Year Age Group**

	Jackknife Approach		Lognormal Parametric Model		Best Fit Parametric Model	
					Max Extreme	Lognormal
N (sample)	1954	1954	-	-	-	-
Skewness	na <sup>a</sup>	na	0.74	0.77	1.47	0.77
Kurtosis	na	na	3.96	4.34	7.81	4.34
%-ile or mean	L/kg-day	L/day	L/kg-day	L/day	L/kg-day	L/day
Sample Min	43	79	-	-	-	-
Mean (SE) <sup>b</sup>	752 (9)	7502 (91)	752 (1)	7568 (13)	752 (1)	7568 (13)
50%-ile (SE)	706 (7)	7193 (91)	720	7282	706	7282
75%-ile (SE)	870 (11)	9128 (91)	909	9201	871	9201
90%-ile (SE)	1094 (19)	11,502 (120)	1107	11,523	1094	11,523
95%-ile (SE)	1241 (24)	12,860 (170)	1241	12,895	1241	12,895
Sample Max	2584	24,411	-	-	-	-

<sup>a</sup> Not applicable

<sup>b</sup> SE = Standard error

**Table 3.19b. Breathing Rate Distributions For the 2<9 Year Age Group**

	Jackknife Approach		Lognormal Parametric Model		Best Fit Parametric Model	
					Log-normal	Lognormal
N (sample)	6144	6144	-	-	-	-
Skewness	na <sup>a</sup>	na	0.95	0.86	0.95	0.86
Kurtosis	na	na	4.63	4.96	4.63	4.96
%-ile or mean	L/kg-day	L/day	L/kg-day	L/day	L/kg-day	L/day
Sample Min	144	2661	-	-	-	-
Mean (SE) <sup>b</sup>	595 (4)	11,684 (82)	595 (1)	11,680 (16)	595 (1)	11,680 (16)
50%-ile (SE)	567 (5)	11,303 (70)	567	11,303	567	11,303
75%-ile (SE)	702 (5)	13,611 (110)	702	13,606	702	13,606
90%-ile (SE)	857 (7)	16,010 (170)	857	16,012	857	16,012
95%-ile (SE)	975 (9)	17,760 (229)	975	17,758	975	17,758
Sample Max	1713	31,739	-	-	-	-

<sup>a</sup> Not applicable

<sup>b</sup> SE = Standard error

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**Table 3.19c. Breathing Rate Distributions for the 2<16 Year Age Group**

	Jackknife Approach		Lognormal Parametric Model		Best Fit Parametric Model	
					Gamma	Max Extreme
N (sample)	7624	7624	-	-	-	-
Skewness	na <sup>a</sup>	na	0.74	0.75	0.91	1.46
Kurtosis	na	na	3.97	4.02	4.38	7.26
%-ile or mean	L/kg-day	L/day	L/kg-day	L/day	L/kg-day	L/day
Sample Min	57	2661	-	-	-	-
Mean (SE) <sup>b</sup>	481 (5)	14,090 (135)	481 (1)	14,094 (24)	481 (1)	14,095 (24)
50%-ile (SE)	450 (5)	13,128 (110)	456	13,465	451	13,131
75%-ile (SE)	603 (4)	16,644 (189)	606	17,239	603	16,655
90%-ile (SE)	764 (6)	20,993 (361)	763	21,214	763	20,993
95%-ile (SE)	869 (6)	23,879 (498)	868	23,870	868	23,886
Sample Max	1713	53,295	-	-	-	-

<sup>a</sup> Not applicable

<sup>b</sup> SE = Standard error

**Table 3.19d. Breathing Rate Distributions for the 16<30 Year Age Group**

	Jackknife Approach		Lognormal Parametric Model		Best Fit Parametric Model	
					Max Extreme	Lognormal
N (sample)	2155	2155	-	-	-	-
Skewness	na <sup>a</sup>	na	0.69	1.90	1.69	1.90
Kurtosis	na	na	3.75	11.15	8.94	11.15
%-ile or mean	L/kg-day	L/day	L/kg-day	L/day	L/kg-day	L/day
Sample Min	23	1029	-	-	-	-
Mean (SE) <sup>b</sup>	197 (3)	13,759 (204)	200 (<1)	13,899 (31)	200 (<1)	13,899 (31)
50%-ile (SE)	180 (3)	12,473 (125)	190	12,494	182	12,494
75%-ile (SE)	238 (4)	16,975 (245)	259	17,192	242	17,192
90%-ile (SE)	320 (4)	21,749 (305)	331	22,136	323	22,136
95%-ile (SE)	373 (11)	26,014 (634)	378	26,481	377	26,481
Sample Max	976	75,392	-	-	-	-

<sup>a</sup> Not applicable

<sup>b</sup> SE = Standard error



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**Table 3.19e. Breathing Rate Distributions for the 16-70 Year Age Group**

	Jackknife Approach		Lognormal Parametric Model		Best Fit Parametric Model	
					Max Extreme	Lognormal
N (sample)	8512	8512	-	-	-	-
Skewness	na <sup>a</sup>	na	0.67	2.05	1.87	2.05
Kurtosis	na	na	3.74	12.35	10.67	12.35
%-ile or mean	L/kg-day	L/day	L/kg-day	L/day	L/kg-day	L/day
Sample Min	13	740	-	-	-	-
Mean (SE) <sup>b</sup>	165 (2)	12,078 (134)	165 (<1)	12,074 (26)	165 (<1)	12,074 (26)
50%-ile (SE)	152 (1)	10,951 (86)	157	10,951	152	10,951
75%-ile (SE)	200 (1)	14,687 (141)	212	14,685	200	14,685
90%-ile (SE)	257 (3)	18,838 (173)	269	18,834	257	18,834
95%-ile (SE)	307 (4)	21,812 (371)	307	21,831	307	21,831
Sample Max	975	75,392	-	-	-	-

<sup>a</sup> Not applicable

<sup>b</sup> SE = Standard error

### 3.5.2 OEHHA-derived breathing rates based on the IOM DLW Database

The Institute of Medicine (IOM) 2005 dietary reference report includes an extensive database that is a compilation of DLW-derived energy expenditure results and other raw data for individuals collected from numerous studies. An advantage of this dataset over the U.S. EPA MET approach and the TAV approaches is that individual data on energy expenditure are matched with the weight and age of the individuals. The disadvantage is that the data are not necessarily representative of a random sample of a population.

When breathing rates were calculated from the energy expenditure data, it became apparent that there were some extreme individual breathing rates that did not appear physically possible. Using the results from the PAL limits (Section 3.4.4.3), breathing rates with a PAL greater than 2.5 were removed. Additionally, some breathing rates were below the expected BMR for an individual. Based on evidence that energy expenditure during sleep is 5 to 10% lower than the BMR, derived breathing rates that were 10% or more below the expected BMR were also removed (Brooks et al., 2004). However, relatively few individuals were removed due to an extreme breathing rate; <1 to 6% of the values were removed from any one age group.

Rather than assume a normal distribution for the age groupings as Brochu et al. (2006a) had done, OEHHA arranged the data to be more representative of a population by weighting the energy expenditure data by age and gender. The modeled populations were weighted towards an equal number of persons per year of age and the assumption was used that males and females in a population are at a ratio of 50:50. In addition, the IOM database separated individuals by weight, or more specifically, by body mass index

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(BMI). Children 3 to 18 years of age are considered at risk of overweight when their BMI is greater than the 85<sup>th</sup> percentile, and overweight when their BMI is greater than the 95<sup>th</sup> percentile (Kuczmarski et al., 2000). Thus, the IOM (2005) placed overweight/obese children in a separate dataset. For the modeled populations, an 85:15 weighting for normal:overweight children in the 2<9 and 2<16 age groups was used. Adults (>19 years of age) were placed in the overweight/obese dataset if they had BMIs of 25 kg/m<sup>2</sup> and higher by the IOM. The results from USDA's 1994-96 Diet and Health Knowledge Survey (Tippett and Cleveland, 2001) found that 54.6% of the U.S. population have a BMI of 25 kg/m<sup>2</sup> or greater (n=5530). Thus, for the adult age groups (16<30 and 16-70 yrs), 45:55 weighting for normal:overweight adults was used to model the populations.

For infants, the source of the raw data in the IOM (2005) database was from Butte et al. (2000), a DLW study conducted at the Children's Nutrition Research Center in Houston, TX. Butte et al. (2000) monitored energy expenditure in 76 healthy infants by the DLW method up to six times during the study, at 3, 6, 9, 12, 18, and 24 months of age, generating a total of 351 measurements that fell within the OEHHA-specified 0<2 year age group. Thus, many of the infants were tested more than once during the study period. Following each administration of DLW by mouth, urine samples were collected over 10 days and analyzed for the hydrogen and oxygen isotopes to calculate energy expenditure.

The percentage of breast-fed infants at ages 3, 6, 9, 12, 18, and 24 months were 100%, 80%, 58%, 38%, 15%, and 5%, respectively in the Butte et al. (2000) study. The racial distribution by maternal lineage was 55 white, 7 African American, 11 Hispanic, and 3 Asian infants. The NCHS growth reference (Hamill et al., 1979) was used to evaluate the adequacy of growth in these infants. The growth performance of these infants was comparable with that of other breast-fed and formula-fed infant populations in whom socioeconomic and environmental constraints would not be expected to limit growth. Relative to the NCHS reference and compared with other breast-fed and formula-fed study populations, the growth of the children was considered satisfactory by the researchers.

Although the study did not choose subjects representative of any particular population, the range of activities that individuals of this age engage in is not as variable as the range of activities engaged in by older children and adults. In addition, even though many of the infants were tested more than once during the study period, repeated measures on the same individuals can reduce the amount of intraindividual variability in the distribution of measurements because a better estimate of typical energy expenditure is captured. Considering the limitations, the study results were judged by OEHHA to be similar enough to a randomly sampled population to calculate distributional statistics for breathing rate.

An additional observation from Butte et al. (2000) was that total energy expenditure measurements differed by age and by feeding group, but not by sex, when adjusted for weight. As expected, PAL increased significantly with age from 1.2 at 3 months to 1.4 at 24 months.



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Breathing rates determined by the DLW method for women in their third trimester of pregnancy are presented separately in Section 3.5.4.

To obtain the daily breathing rate distributions for all age groups shown in Table 3.20a-e, OEHHA fit the data to a lognormal distribution using Crystal Ball® and sampled 250,000 times using Latin-Hypercube. The lognormal distribution is commonly used in stochastic risk assessment and has been found to be a reasonable parametric model for a variety of exposure parameters, including breathing rate. Latin-Hypercube analysis in Crystal Ball® was also used to determine the best parametric model fit for the distribution of breathing rates. The Anderson-Darling statistic was used for the goodness-of-fit test because it gives greater weight to the tails than to the center of the distribution.

**Tables 3.20a-e. Breathing Rate Distributions by Age Group (Males and Females Combined) Derived from IOM (2005) DLW Database Using Parameter Estimates of Lognormal and Best Fit Distributions**

**Table 3.20a. 0<2 Year Age Group Breathing Rate Distribution**

	Moments and Percentiles, Empirical Data		Moments and Percentiles, Lognormal Parametric Model		Moments and Percentiles, Best Fit Parametric Model	
N	281	281				
Skewness	-0.044	0.28	-0.001	0.44	-0.044	0.28
Kurtosis	2.10	2.59	3.00	3.35	2.10	2.59
	L/kg-day	L/day	L/kg-day	L/day	L/kg-day	L/day
					Beta	Beta
Sample Min	357	2228	-	-	-	-
Mean (SE)	567	5031	567	5031	567	5031
50%-ile	562	4967	567	4925	568	4943
80%-ile	657	6323	644	6232	655	6325
90%-ile	689	6889	685	6981	691	7042
95%-ile	713	7595	718	7638	714	7607
Sample Max	752	9210	-	-	-	-

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**Table 3.20b. 2<9 Year Age Group Breathing Rate Distribution**

	Moments and Percentiles, Empirical Data		Moments and Percentiles, Lognormal Parametric Model		Moments and Percentiles, Best Fit Parametric Model	
N	810	810				
Skewness	0.0759	0.4676	0.0796	0.4763	0.0796	0.0290
Kurtosis	2.93	3.62	3.00	3.40	3.00	3.50
	L/kg-day	L/day	L/kg-day	L/day	L/kg-day	L/day
					Log-normal	Student's T
Sample Min	240	5085	-	-	-	-
Mean (SE)	482	9708	482	9708	482	9711
50%-ile	479	9637	481	9521	481	9708
80%-ile	551	11,478	555	11,650	555	11,641
90%-ile	597	12,629	595	12,880	595	12,704
95%-ile	631	13,626	628	13,962	628	13,632
Sample Max	703	21,152	-	-	-	-

**Table 3.20c. 2<16 Year Age Group Breathing Rate Distribution**

	Moments and Percentiles, Empirical Data		Moments and Percentiles, Lognormal Parametric Model		Moments and Percentiles, Best Fit Parametric Model	
N	1227	1237				
Skewness	0.2729	0.8705	0.4613	1.12	0.2729	1.14
Kurtosis	2.45	3.70	3.38	5.32	2.45	5.43
	L/kg-day	L/day	L/kg-day	L/day	L/kg-day	L/day
					Beta	Max Ext.
Sample Min	168	5328	-	-	-	-
Mean (SE)	423	12,695	423	12,700	423	12,695
50%-ile	411	11,829	414	12,000	416	11,988
80%-ile	529	16,184	517	15,833	527	15,788
90%-ile	580	18,944	576	18,328	583	18,303
95%-ile	623	20,630	628	20,694	626	20,716
Sample Max	737	27,803	-	-	-	-



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**Table 3.20d. 16-30 Year Age Group Breathing Rate Distribution**

	Moments and Percentiles, Empirical Data		Moments and Percentiles, Lognormal Parametric Model		Moments and Percentiles, Best Fit Parametric Model	
N	245	245				
Skewness	0.3471	0.4786	0.4008	0.6962	0.4008	0.6962
Kurtosis	3.03	3.11	3.28	3.88	3.28	3.88
	L/kg-day	L/day	L/kg-day	L/day	L/kg-day	L/day
					Log-normal	Log-normal
Sample Min	135	7246	-	-	-	-
Mean (SE)	222	16,458	222	16,464	222	16,464
50%-ile	220	16,148	219	16,053	219	16,053
80%-ile	256	19,468	259	19,395	259	19,395
90%-ile	282	21,954	282	21,410	282	21,410
95%-ile	308	23,295	302	23,231	302	23,231
Sample Max	387	26,670	-	-	-	-

**Table 3.20e. 16-70 Year Age Group Breathing Rate Distribution**

	Moments and Percentiles, Empirical Data		Moments and Percentiles, Lognormal Parametric Model		Moments and Percentiles, Best Fit Parametric Model	
N	842	846				
Skewness	0.4264	0.6323	0.4506	0.7346	0.4506	0.7346
Kurtosis	3.18	3.32	3.36	3.98	3.36	3.98
	L/kg-day	L/day	L/kg-day	L/day	L/kg-day	L/day
					Log-normal	Log-normal
Sample Min	95	7235	-	-	-	-
Mean (SE)	206	15,713	206	15,715	206	15,715
50%-ile	204	15,313	203	15,282	203	15,282
80%-ile	241	18,773	243	18,664	243	18,664
90%-ile	268	20,612	266	20,687	266	20,687
95%-ile	286	22,889	286	22,541	286	22,541
Sample Max	387	29,136	-	-	-	-

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### 3.5.3 OEHA Age Group Breathing Rate Distributions Derived From U.S. EPA (2009) MET Approach

In Tables 3.21a-e, non-normalized (L/day) and normalized (L/kg-day) breathing rates for the specific OEHA age groups were derived for both children and adults from the data included in the U.S. EPA (2009) report and presented above. Values for males and females were combined by taking weighted averages for each age range provided, assuming that the numbers of males and females in the population are equal. Ages were combined by the same means to create the age ranges of toxicological interest to the "Hot Spots" program.

The breathing rates used in preparation of the U.S. EPA report were derived by selecting an activity pattern set from a compilation of daily activity pattern sets (CHAD) and assigning them to a person in NHANES of the same sex and age group, although the age groups are fairly narrow for the very young (i.e., 3-month or 1-year intervals), the older age groups consist of broad age categories (i.e., 3 to 5 year intervals). These broad age groups include periods, for example 3 to <6 years, when activity can vary greatly by year of age. In addition, NHANES calculates a "sampling weight" for each participant, which represents the number of individuals in the population with the same set of these characteristics. When an individual in CHAD is matched to an individual in NHANES only on sex and age group, the set of characteristics that belonged to the CHAD individual are ignored, which could result in significantly different weighting. Thus the derived breathing rates cannot be considered representative of the population.

For these reasons and other limitations of the EPA data, as stated in Section 3.3.3.3, OEHA chose to fit a selected set of parametric distributions to the percentile data given by U.S. EPA, rather than attempting to use the raw data to determine the best fit parametric model. A gamma distribution was fit to each age group using Crystal Ball®, which is usually one of the better fitting distributions for the right-skewed distributions typical of intake variability. The gamma distribution is a three parameter distribution with fewer shape constraints than two parameter distributions such as a lognormal distribution.



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**Table 3.21a-e. Normalized and Non-Normalized Breathing Rate Distributions by Age Group (Males and Females Combined) Derived From U.S. EPA (2009) Breathing Rates Using a Gamma Parameter Estimate Distribution**

**Table 3.21a. 0<2 Year Age Group Breathing Rate Distribution**

Moments and Percentiles, Gamma Parametric Model		
N	1601	1601
	<b>L/kg-day</b>	<b>L/day</b>
Mean	1125	10,711
50%-ile	1104	10,489
75%-ile	1199	12,301
90%-ile	1302	14,104
95%-ile	1372	15,271

**Table 3.21b. 2<9 Year Age Group Breathing Rate Distribution<sup>a</sup>**

Moments and Percentiles, Gamma Parametric Model		
N	4396	4396
	<b>L/kg-day</b>	<b>L/day</b>
Mean	597	12,758
50%-ile	591	12,518
75%-ile	662	13,911
90%-ile	732	15,375
95%-ile	776	16,176

<sup>a</sup> Breathing rate data for this age range were actually available for 2<11 years of age

**Table 3.21c. 2<16 Year Age Group Breathing Rate Distribution**

Moments and Percentiles, Gamma Parametric Model		
N	7657	7657
	<b>L/kg-day</b>	<b>L/day</b>
	449	13,365
50%-ile	440	13,106
75%-ile	496	14,694
90%-ile	555	16,426
95%-ile	595	17,609

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**Table 3.21d. 16<30 Year Age Group Breathing Rate Distribution<sup>a</sup>**

Moments and Percentiles, Gamma Parametric Model		
N	6111	6111
	<b>L/kg-day</b>	<b>L/day</b>
Mean	221	16,005
50%-ile	215	15,469
75%-ile	244	17,984
90%-ile	275	20,699
95%-ile	296	22,535

<sup>a</sup> Breathing rate data for this age range were actually available for 16<31 years of age

**Table 3.21e. 16-70<sup>a</sup> Year Age Group Breathing Rate Distribution**

Moments and Percentiles, Gamma Parametric Model		
N	16,651	16,651
	<b>L/kg-day</b>	<b>L/day</b>
Mean	219	16,937
50%-ile	214	16,515
75%-ile	245	18,924
90%-ile	278	21,443
95%-ile	299	23,128

<sup>a</sup> Breathing rate data for this age range were given as 16<71 years of age

A limitation in calculating these breathing rates is that equal weighting by year of age was assumed when merging the U.S. EPA breathing rates into larger age groups used by OEHHA. However, this may not be a significant factor for the smaller age groups (i.e., 3rd trimester, 0<2, 2<9, 2<16, 16<30 yr old age groups), but could affect the breathing rate estimate for the 16-70 year olds. This is because a random sample of the population would find proportionally fewer adults in the 61 to 70 year age range, for example, compared to 21 to 30 year age range.

Another limitation is that merging the U.S. EPA age groups into the OEHHA age groupings does not yield the precise age range for 2<9 and 16 to <30 year olds. The actual age range in the US EPA data used to get the 16 to <30 year olds is 16 to <31, which we do not consider a significant deviation. However, the actual age range in the US EPA data used to get the 2 to <9 year olds is 2 to <11 years. The addition of 9 and 10 year olds would slightly reduce the normalized breathing rate in L/kg-day because younger children (i.e., 2<9 year olds) have higher normalized breathing rates than older children (i.e., 9-10 year olds). Alternatively, addition of 9 and 10 year olds to the 2<9 year age group would slightly increase the absolute breathing rate in L/day due to

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higher volumes of air breathed per day by 9 and 10 year olds compared to younger children.

### 3.5.4 OEHHA-Derived Third Trimester Breathing Rates

For third trimester exposure, OEHHA calculated breathing rates using the assumption that the dose to the fetus during the third trimester was the same as that to the mother. Both the CSFII and DLW data sets included data from pregnant women that could be used to calculate breathing rates (Table 3.22). The DLW data included a code for trimester of pregnancy, while the CSFII data did not. Thus, breathing rates by the CSFII method was estimated using data for women in all stages of pregnancy with no means for separation by stage of pregnancy. OEHHA believes this would not underestimate the third trimester breathing rates, since the CSFII breathing rate data tend to overestimate the breathing rate in the upper (e.g., 95<sup>th</sup> percentile) and lower percentiles for the reasons cited in Section 3.4.3.2. Since breathing rate increases over the course of pregnancy, we felt that we could successfully combine these data with the DLW data and produce a reasonable set of point estimates for the third trimester.

In order to create a set of breathing rate data suitable for use in a stochastic risk assessment for third trimester pregnant women, we selected 1,000 observations from each set of data, normalized and non-normalized, using a Monte Carlo simulation in Crystal Ball®. Because the data sets from the two sources were similar in size, a relatively small set of simulated data was sufficient. We combined these data to create two sets of pooled data (see Section 3.2 above). We then fit a parametric distribution to each of the pooled samples, using Crystal Ball® and the Anderson-Darling goodness-of-fit test.

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**Table 3.22. Normalized and Non-Normalized Breathing Rate Distributions for Women in Their Third Trimester of Pregnancy: OEHHA-Derived Values from Doubly-Labeled Water (DLW) and Continuing Survey of Food Intake of Individuals (CSFII) Databases**

	DLW L/kg BW-day	CSFII L/kg BW-day	DLW L/day	CSFII L/day
Distribution	Lognormal	Gamma	Lognormal	Gamma
Minimum	150	78	10,316	4,025
Maximum	348	491	23,932	29,041
Mean	220	232	15,610	14,830
Median	210	216	15,196	14,311
Std Dev	46	92	3,118	5,326
Skewness	1.19	0.5575	0.7744	0.4393
Kurtosis	4.04	2.57	3.57	3.02
<b>Percentiles</b>				
1%	150	84	10,316	4,025
5%	161	104	10,809	7,714
10%	174	127	11,846	8,201
25%	192	155	13,750	11,010
50%	210	216	15,196	14,311
75%	241	302	17,343	18,153
80%	246	323	17,832	19,114
90%	280	363	18,552	21,799
95%	322	392	22,763	24,349
99%	348	490	23,932	28,848

### 3.5.5 Summary of Long-Term Daily Breathing Rate Distributions

Table 3.23 presents a summary of the long-term daily mean and high end (i.e., 95<sup>th</sup> percentile) breathing rates derived by OEHHA from different sets of energy expenditure data. The breathing rate distributions for women in their third trimester of pregnancy are presented separately in Table 3.22 above. The MET- (non-normalized only), CSFII- and DLW-derived breathing rates in Table 3.22 are based on the best fit parametric models for each age group, although little variation in the breathing rate was observed between models within each breathing rate method. Also included are data from TAV studies that estimated breathing rates in age groupings reasonably similar to that used by OEHHA.

As noted in Table 3.23, some of the age groupings for the MET-derived breathing rates, and all age groups in the TAV-derived breathing rates do not precisely reflect the age ranges used in the "Hot Spots" program. This was primarily due to methodological differences in data collection which did not allow individual breathing rates matched with the age of the individual. However, the differences in the age ranges were small



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enough in many cases to allow a rough comparison among the various breathing rate estimation methods, so they were included in the table.

**TABLE 3.23. Summary of Breathing Rate by Study and Age Group**

	0<2 yrs L/kg-day		2<9 yrs L/kg-day		2<16 yrs L/kg-day		16<30 yrs L/kg-day		16-70 yrs L/kg-day	
	mean	95th	mean	95th	mean	95th	mean	95th	mean	95th
MET <sup>a</sup>	1125	1372	597 <sup>b</sup>	776 <sup>b</sup>	449	595	221 <sup>c</sup>	296 <sup>c</sup>	219	299
CSFII <sup>d</sup>	752	1241	595	975	481	868	200	377	165	307
DLW <sup>e</sup>	567	713	482	628	423	626	222	302	206	286
TAV <sup>f</sup>										
Marty et al.	-	-	-	-	452 <sup>g</sup>	580.5 <sup>g</sup>	-	-	232 <sup>h</sup>	381 <sup>h</sup>
Allan et al.	-	-	-	-	-	-	-	-	201 <sup>i</sup>	280 <sup>i</sup>
	0<2 yrs L/day		2<9 yrs L/day		2<16 yrs L/day		16<30 yrs L/day		16-70 yrs L/day	
	mean	95th	mean	95th	mean	95th	mean	95th	mean	95th
MET <sup>a</sup>	10,711	15,271	12,758	16,176	13,365	17,609	16,005	22,535	16,937	23,128
CSFII <sup>d</sup>	7568	12,895	11,680	17,758	14,095	23,886	13,899	26,481	12,074	21,831
DLW <sup>e</sup>	5031	7595	9711	13,632	12,695	20,716	16,464	23,231	15,715	22,541
TAV <sup>f</sup>										
Marty et al.	-	-	-	-	8,100 <sup>g</sup>	10,500 <sup>g</sup>	-	-	14,600 <sup>h</sup>	24,000 <sup>h</sup>
Allan et al.	-	-	-	-	-	-	-	-	16,160 <sup>i</sup>	22,480 <sup>i</sup>

<sup>a</sup> U.S. EPA metabolic equivalent (MET) approach breathing rate point estimates shown were derived using the best fit parametric model from Tables 3.20a-e.

<sup>b</sup> All MET-derived breathing rates for the 2<9 yr age group actually represent 2<11 yr olds.

<sup>c</sup> All MET-derived breathing rates for the 16<30 yr age group actually represent 16<31 yr olds.

<sup>d</sup> CSFII food intake-derived breathing rate point estimates shown were derived using the best fit parametric model as presented in Tables 3.18a-e.

<sup>e</sup> Doubly-labeled water-derived (DLW) breathing rate point estimates shown were derived using the best fit parametric model as shown in Tables 3.19a-e.

<sup>f</sup> Time-activity-ventilation (TAV) breathing rate point estimates are from Table 3.3 (Marty et al. 2002) and Table 3.5 (Allan et al., 2008).

<sup>g</sup> The breathing rate point estimates from Table 3.3 actually represent an age range of about 3 to <12 yrs old. The non-normalized breathing rate point estimates in L/day is the equivalent for an 18 kg child.

<sup>h</sup> The breathing rate point estimates from Table 3.4 actually represent an age range of 12 to 70 years old. Non-normalized breathing rate point estimates in L/day are the equivalent for a 63 kg adult.

<sup>i</sup> Breathing rate point estimates were derived from Table 3.5 and represent an age range of 12 to 60+ years. The point estimates were calculated assuming equal weighting for each age group (12-19 yrs, 20-59 yrs, 60+ yrs) and combined. Breathing rates in Table 3.5 were available only in L/day, so the non-normalized point estimates were both divided by the mean body weight for the 16-70 age group (80.3 kg) to generate breathing rates in L/kg-day.

The DLW energy expenditure data likely result in daily breathing rates that are slightly lower in some cases than what would be expected in a random population sample, particularly for adults (Black et al., 1996). On the other hand, U.S. EPA (2008) observed that the upper percentile breathing rates for the MET and CSFII approaches are unusually high for long-term daily exposures. Based on the limits of sustainable daily breathing rates for adolescents and adults discussed in Section 3.4.4.3, the 95th percentile breathing rates in Table 3.22 appear to be above sustainable limits for some age groups. For example, the CSFII-generated upper percentile breathing rates are

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highest in the age groups containing older adolescents. The 16<30 year age group upper percentile breathing rate from the CSFII study is 377 L/kg-d. This breathing rate is above the sustainable breathing rate (based on PAL) of 283-353 L/kg-d for males 19-30 years of age shown in Table 3.16 (but is not above the sustainable breathing rates for the subgroup of males and females 14-18 yrs of age with a breathing rate of 332-513 L/kg-d).

A limitation of the estimated PALs for daily breathing rates determined in Tables 3.15 and 3.17 is that the participants used in the study may not reflect a random sample of the population. Nevertheless, the observed PAL of novice athletes training for endurance runs and soldiers during field training falls within this range of 2.0-2.5 (Westerterp, 1998; 2001). Thus, the breathing rates based on physical activity limits should be accurate for the general population, with the exception of professional endurance athletes in the most demanding sports (cross-country skiing and cycling) during training and competition.

With the advantages and disadvantages of the breathing rate datasets described in Section 3.2, OEHHA recommends using a daily breathing rate point estimates based on a mean of the DLW and CSFII approaches. The main benefit is the use of individual data from these two datasets, including individual body weights, which can be combined into one distribution. In order to create a set of breathing rate data suitable for use in a stochastic risk assessment of long-term daily average exposures, OEHHA combined data for each age range within the two sources of breathing rate data, CSFII and DLW. We selected an equal number of observations from each source for the five age ranges, normalized and non-normalized, using a Monte Carlo simulation in Crystal Ball® to create pooled data for each group. We then fit a parametric distribution to each of the pooled samples, using Crystal Ball® and the Anderson-Darling goodness-of-fit test.

For infants 0<2 yrs of age, OEHHA used the DLW data by Butte et al. (2000) for combining with CSFII study 0<2 yr data. This longitudinal study followed a group of about 40 infants collecting urine every 3 months after DLW administration from age 3 months to two years of age. The sample size was not considered large enough to use this data exclusively for determining the 0<2 yr breathing rates, so was combined with CSFII data of infants in the same age range.

### 3.6 8-Hour Breathing Rates

Specialized exposure scenarios for estimating cancer risk to offsite workers, neighborhood residents, and school children may involve evaluating exposure in the 8-12 hour range. Therefore, 8-hour breathing rates were estimated for exposed individuals engaged in activities that bracket the range of breathing rates including minimal inhalation exposure such as reading a book and desk work, and high breathing rates such as farm work or yard work, that can be reasonably sustained for an 8-hour period.



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As part of the development of average daily breathing rates, U.S. EPA (2009) used existing data on minute ventilation rates (in ml/min or ml/kg-min) for a range of activities and assigned MET values depending on the intensity level of activity:

- Sedentary/Passive Activities: Activities with MET values no higher than 1.5
- Light Intensity Activities: Activities with MET values exceeding 1.5 to  $\leq 3.0$
- Moderate Intensity Activities: Activities with MET values exceeding 3.0 to  $\leq 6.0$
- High Intensity Activities: Activities with MET values exceeding 6.0

An additional ventilation rate distribution was developed for sleeping/napping only, although the sedentary/passive activity category (MET values  $\leq 1.5$ ) also includes sleeping and napping. Table 3.23 shows selected MET values for various workplace activities and activities in the home or neighborhood that were used to calculate daily breathing rates by U.S. EPA (2009).

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**Table 3.23. METS Distributions for Workplace and Home Activities**

Activity Description	Mean	Median	SD	Min	Max
<b>Workplace Activities</b>					
Administrative office work	1.7	1.7	0.3	1.4	2.7
Sales work	2.9	2.7	1.0	1.2	5.6
Professional	2.9	2.7	1.0	1.2	5.6
Precision/production/craft/repair	3.3	3.3	0.4	2.5	4.5
Technicians	3.3	3.3	0.4	2.5	4.5
Private household work	3.6	3.5	0.8	2.5	6.0
Service	5.2	5.3	1.4	1.6	8.4
Machinists	5.3	5.3	0.7	4.0	6.5
Farming activities	7.5	7.0	3.0	3.6	17.0
Work breaks	1.8	1.8	0.4	1.0	2.5
<b>Household/Neighborhood Activities</b>					
Sleep or nap	0.9	0.9	0.1	0.8	1.1
Watch TV	1.0	1.0	-	1.0	1.0
General reading	1.3	1.3	0.2	1.0	1.6
Eat	1.8	1.8	0.1	1.5	2.0
Do homework	1.8	1.8	-	1.8	1.8
General personal needs and care	2.0	2.0	0.6	1.0	3.0
Indoor chores	3.4	3.0	1.4	2.0	5.0
Care of plants	3.5	3.5	0.9	2.0	5.0
Clean house	4.1	3.5	1.9	2.2	5.0
Home repairs	4.7	4.5	0.7	4.0	6.0
General household chores	4.7	4.6	1.3	1.5	8.0
Outdoor chores	5.0	5.0	1.0	2.0	7.0
Walk/bike/jog (not in transit) age 20	5.8	5.5	1.8	1.8	11.3
Walk/bike/jog (not in transit) age 30	5.7	5.7	1.2	2.1	9.3
Walk/bike/jog (not in transit) age 40	4.7	4.7	1.8	2.3	7.1

MET values and hr/day spent at these various activities were used by U.S. EPA (2009) to calculate selected minute ventilation rates shown in Table 3.24a-b.

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**Table 3.24a. Descriptive Statistics for Minute Ventilation Rates (L/min-kg) While Performing Activities Within the Specified Activity Category (US EPA, 2009)**

Age Category (years)	Males				Females			
	Mean	50th	90th	95th	Mean	50th	90th	95th
<b>Sedentary &amp; Passive Activities<sup>a</sup> (METs ≤ 1.5)</b>								
Birth to <1	0.40	0.39	0.47	0.50	0.40	0.40	0.48	0.52
1	0.41	0.40	0.49	0.52	0.43	0.42	0.51	0.54
2	0.34	0.34	0.41	0.45	0.36	0.35	0.42	0.44
3 to <6	0.25	0.25	0.33	0.35	0.25	0.25	0.33	0.36
6 to <11	0.16	0.16	0.21	0.22	0.16	0.16	0.21	0.23
11 to <16	0.10	0.10	0.13	0.14	0.10	0.09	0.12	0.13
16 to <21	0.08	0.08	0.09	0.10	0.07	0.07	0.10	0.10
21 to <31	0.06	0.06	0.08	0.08	0.06	0.06	0.07	0.08
31 to <41	0.07	0.07	0.08	0.09	0.06	0.06	0.08	0.08
41 to <51	0.07	0.07	0.09	0.09	0.06	0.06	0.08	0.09
51 to <61	0.07	0.07	0.09	0.09	0.07	0.07	0.08	0.09
61 to <71	0.08	0.08	0.09	0.09	0.07	0.07	0.08	0.08
<b>Light Intensity Activities (1.5 &lt; METs ≤ 3.0)</b>								
Birth to <1	0.99	0.97	1.17	1.20	0.98	0.96	1.18	1.23
1	1.02	1.01	1.22	1.30	1.05	1.04	1.25	1.27
2	0.84	0.83	1.00	1.03	0.90	0.89	1.04	1.10
3 to <6	0.63	0.63	0.79	0.87	0.62	0.60	0.78	0.83
6 to <11	0.38	0.38	0.49	0.53	0.38	0.38	0.50	0.54
11 to <16	0.25	0.24	0.31	0.33	0.23	0.22	0.28	0.31
16 to <21	0.18	0.18	0.22	0.23	0.17	0.17	0.21	0.22
21 to <31	0.16	0.15	0.19	0.21	0.15	0.15	0.18	0.19
31 to <41	0.16	0.16	0.20	0.21	0.15	0.15	0.19	0.20
41 to <51	0.17	0.16	0.20	0.21	0.16	0.16	0.20	0.22
51 to <61	0.17	0.16	0.20	0.22	0.16	0.16	0.20	0.21
61 to <71	0.16	0.16	0.19	0.20	0.15	0.14	0.17	0.18
<b>Moderate Intensity Activities (3.0 &lt; METs ≤ 6.0)</b>								
Birth to <1	1.80	1.78	2.18	2.28	1.87	1.85	2.25	2.40
1	1.88	1.82	2.33	2.53	1.90	1.87	2.24	2.37
2	1.55	1.54	1.84	2.02	1.60	1.58	1.92	2.02
3 to <6	1.17	1.12	1.56	1.68	1.14	1.11	1.45	1.56
6 to <11	0.74	0.71	0.96	1.04	0.72	0.71	0.94	1.01
11 to <16	0.49	0.47	0.64	0.68	0.44	0.43	0.55	0.61
16 to <21	0.39	0.38	0.49	0.52	0.36	0.35	0.46	0.49
21 to <31	0.36	0.34	0.47	0.51	0.33	0.32	0.42	0.45
31 to <41	0.36	0.34	0.47	0.52	0.32	0.30	0.41	0.46
41 to <51	0.37	0.35	0.47	0.52	0.33	0.32	0.44	0.49
51 to <61	0.38	0.37	0.48	0.55	0.34	0.33	0.44	0.49
61 to <71	0.34	0.34	0.40	0.42	0.29	0.28	0.35	0.37

<sup>a</sup> Sedentary and passive activities includes sleeping and napping

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**Table 3.24b. Descriptive Statistics for Minute Ventilation Rates (L/min) While Performing Activities Within the Specified Activity Category (US EPA, 2009)**

Age Category (years)	Males				Females			
	Mean	50th	90th	95th	Mean	50th	90th	95th
<b>Sedentary &amp; Passive Activities<sup>a</sup> (METs ≤ 1.5)</b>								
Birth to <1	3.18	3.80	4.40	4.88	3.00	2.97	4.11	4.44
1	4.62	5.03	5.95	6.44	4.71	4.73	5.95	6.63
2	4.79	5.35	6.05	6.71	4.73	4.67	5.75	6.22
3 to <6	4.58	5.03	5.58	5.82	4.40	4.34	5.29	5.73
6 to <11	4.87	5.40	6.03	6.58	4.64	4.51	5.88	6.28
11 to <16	5.64	6.26	7.20	7.87	5.21	5.09	6.53	7.06
16 to <21	5.76	6.43	7.15	7.76	4.76	4.69	6.05	6.60
21 to <31	5.11	5.64	6.42	6.98	4.19	4.00	5.38	6.02
31 to <41	5.57	6.17	6.99	7.43	4.33	4.24	5.33	5.79
41 to <51	6.11	6.65	7.46	7.77	4.75	4.65	5.74	6.26
51 to <61	6.27	6.89	7.60	8.14	4.96	4.87	6.06	6.44
61 to <71	6.54	7.12	7.87	8.22	4.89	4.81	5.86	6.29
<b>Light Intensity Activities (1.5 &lt; METs ≤ 3.0)</b>								
Birth to <1	7.94	7.95	10.76	11.90	7.32	7.19	9.82	10.80
1	11.56	11.42	14.39	15.76	11.62	11.20	15.17	15.80
2	11.67	11.37	14.66	15.31	11.99	11.69	15.63	16.34
3 to <6	11.36	11.12	13.40	14.00	10.92	10.69	12.85	13.81
6 to <11	11.64	11.26	14.60	15.60	11.07	10.79	13.47	14.67
11 to <16	13.22	12.84	16.42	18.65	12.02	11.76	14.66	15.82
16 to <21	13.41	12.95	16.95	18.00	11.08	10.76	13.80	14.92
21 to <31	12.97	12.42	16.46	17.74	10.55	10.24	13.40	14.26
31 to <41	13.64	13.33	16.46	18.10	11.07	10.94	13.11	13.87
41 to <51	14.38	14.11	17.39	18.25	11.78	11.61	13.85	14.54
51 to <61	14.56	14.35	17.96	19.37	12.02	11.79	14.23	14.87
61 to <71	14.12	13.87	16.91	17.97	10.82	10.64	12.62	13.21
<b>Moderate Intensity Activities (3.0 &lt; METs ≤ 6.0)</b>								
Birth to <1	14.49	14.35	20.08	22.50	13.98	13.53	19.41	22.30
1	21.35	20.62	26.94	28.90	20.98	20.14	27.09	29.25
2	21.54	20.82	26.87	29.68	21.34	21.45	27.61	28.76
3 to <6	21.03	20.55	25.60	27.06	20.01	19.76	23.83	25.89
6 to <11	22.28	21.64	27.59	29.50	21.00	20.39	26.06	28.08
11 to <16	26.40	25.41	33.77	36.93	23.55	23.04	28.42	31.41
16 to <21	29.02	27.97	38.15	42.14	23.22	22.39	30.28	31.98
21 to <31	29.19	27.92	38.79	43.11	22.93	21.94	30.02	32.84
31 to <41	30.30	29.09	39.60	43.48	22.70	21.95	28.94	31.10
41 to <51	31.58	30.44	40.28	44.97	24.49	23.94	30.79	33.58
51 to <61	32.71	31.40	41.66	45.77	25.24	24.30	31.87	35.02
61 to <71	29.76	29.22	36.93	39.98	21.42	20.86	25.72	27.32

<sup>a</sup> Sedentary and passive activities includes sleeping and napping



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In order to obtain minute ventilation rates that represent age ranges used in risk assessment for the "Hot Spots" program, age groups in Tables 3.25a-b were weighted equally by year of age and combined by OEHHA. The male and female data were also merged assuming 50:50 ratio in the California population. Two of the age groups combined from the U.S. EPA MET data do not exactly reflect the age ranges used by OEHHA, but they were judged reasonably close enough to use (i.e., combined MET ages 2 to <11 yrs represents OEHHA's 2<9 yr age group; combined MET ages 16 to <31 yrs represents OEHHA's 16<30 yr age group).

**Table 3.25a. Minute Ventilation Rates for OEHHA Age Groups in L/kg-min (Males and Females Combined)**

	0<2 years	2<9 years	2<16 years	16<30 years	16-70 years
<b>Sedentary &amp; Passive Activities (METs ≤ 1.5)</b>					
Mean	0.41	0.21	0.17	0.07	0.07
95 <sup>th</sup> Percentile	0.52	0.29	0.24	0.09	0.09
<b>Light Intensity Activities (1.5 &lt; METs ≤ 3.0)</b>					
Mean	1.01	0.52	0.42	0.16	0.16
95 <sup>th</sup> Percentile	1.25	0.70	0.56	0.21	0.21
<b>Moderate Intensity Activities (3.0 &lt; METs ≤ 6.0)</b>					
Mean	1.86	0.97	0.79	0.36	0.35
95 <sup>th</sup> Percentile	2.40	1.33	1.09	0.49	0.48

**Table 3.25b. Minute Ventilation Rates for OEHHA Age Groups in L/min (Males and Females Combined)**

	0<2 years	2<9 years	2<16 years	16<30 years	16-70 years
<b>Sedentary &amp; Passive Activities (METs ≤ 1.5)</b>					
Mean	3.88	4.67	4.94	4.85	5.27
95 <sup>th</sup> Percentile	5.60	6.22	6.66	6.73	6.96
<b>Light Intensity Activities (1.5 &lt; METs ≤ 3.0)</b>					
Mean	9.61	11.34	11.79	11.92	12.56
95 <sup>th</sup> Percentile	13.57	14.80	15.67	16.15	16.24
<b>Moderate Intensity Activities (3.0 &lt; METs ≤ 6.0)</b>					
Mean	17.70	21.25	22.58	26.08	26.95
95 <sup>th</sup> Percentile	25.74	28.07	30.25	37.67	37.65

From these tables, the 8-hour breathing rates were calculated by OEHHA based on age groupings used in the Hot Spots program and are presented in Section 3.2. Eight-hour breathing rates based on high intensity activities (MET values >6.0) were not considered here because even at the 95<sup>th</sup> percentile, U.S. EPA (2009) showed that individuals spent only about 1 hour or less per day at this intensity. For moderate intensity activities, the 95<sup>th</sup> percentile was at or near 8 hours/day for some age groups. For women in their third trimester of pregnancy, we are recommending using 8-hour breathing rates based on moderate intensity activities.

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### 3.7 Short-term (1-Hour) Ventilation Rates

SB-352 mandates school districts to conduct a risk assessment for school sites located within 100 meters of a freeway or busy roadway, and also mandates that the AB-2588 risk assessment guidance be used in the risk assessment. Assessing cancer risks due to exposure at a school site requires less than 24 hour breathing rates. OEHHA recommends breathing rates derived from the USEPA (2009) age-specific ventilation rates for these purposes.

The U.S. EPA ventilation rates were developed for various levels of activity and can be used to estimate inhalation cancer risk from short-term maximal emissions from facilities. Breathing rates for children at school can range from sedentary in the classroom to active on the playground or sports field. OEHHA assumes that in some cases, a day care facility will be present on the school site where children may be as young as 0<2 years of age. The age ranges that U.S. EPA (2009) presents are useful for estimating the impact of early-in-life exposure for school-age children. Classroom instructors (i.e., adults) are also considered under SB-352. If the soil ingestion or dermal pathways need to be assessed, OEHHA recommends the exposure variates presented elsewhere in this document. The public health protective approach is to assume that all daily dermal and soil ingestion exposure occurs at school.

As discussed in Section 3.6 above, U.S. EPA (2009) used existing data of ventilation rates (in ml/min or ml/kg-min) from a range of activities and assigned MET values depending on the intensity level of activity. Table 3.26 shows MET values various school-related activities collected from the CHAD database (U.S. EPA, 2009).

**Table 3.26. METS Distributions for School-Related Activities**

Activity Description	Mean	Median	SD	Min	Max
Passive sitting	1.5	1.5	0.2	1.2	1.8
Use of computers	1.6	1.6	0.2	1.2	2.0
Do homework	1.8	1.8	-	1.8	1.8
Use library	2.3	2.3	0.4	1.5	3.0
Attending day-care	2.3	2.3	0.4	1.5	3.0
Attending K-12 schools	2.1	2.1	0.4	1.4	2.8
Play indoors	2.8	2.8	0.1	2.5	3.0
Play outdoors	4.5	4.5	0.3	4.0	5.0
Recess and physical education	5.0	5.0	1.7	2.0	8.0

For OEHHA's purposes, the minute ventilation rates of males and females from Tables 3.24a-b were combined assuming a 50:50 proportional population distribution, and some age groups were combined assuming equal number of individuals in the population per year of age (Table 3.27a-b). For the SB-352, the child age groups were 0<2 years (infants), 2<6 years (preschool, kindergarten), 6<11 years (grade school), 11<16 (junior high and high school). From these minute ventilation rates, 1-hour ventilation rates are derived and presented in Section 3.2.



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**Table 3.27a. Minute Ventilation Rates for SB352 School Sites in L/kg-min (Males and Females Combined)**

	0<2 years	2<6 years	6<11 years	11<16 years	16-70 years
<b>Sedentary &amp; Passive Activities (METs ≤ 1.5)</b>					
Mean	0.41	0.28	0.16	0.10	0.07
95 <sup>th</sup> Percentile	0.52	0.38	0.23	0.14	0.09
<b>Light Intensity Activities (1.5 &lt; METs ≤ 3.0)</b>					
Mean	1.01	0.69	0.38	0.24	0.16
95 <sup>th</sup> Percentile	1.25	0.90	0.54	0.32	0.21
<b>Moderate Intensity Activities (3.0 &lt; METs ≤ 6.0)</b>					
Mean	1.86	1.26	0.73	0.47	0.35
95 <sup>th</sup> Percentile	2.40	1.72	1.03	0.65	0.48
<b>High Intensity Activities (METs ≥ 6.0)</b>					
Mean	-	2.27	1.37	0.92	0.64
95 <sup>th</sup> Percentile	-	3.12	1.87	1.34	0.93

**Table 3.25b. Minute Ventilation Rates for SB352 School Sites in L/min (Males and Females Combined)**

	0<2 years	2<6 years	6<11 years	11<16 years	16-70 years
<b>Sedentary &amp; Passive Activities (METs ≤ 1.5)</b>					
Mean	3.88	4.56	4.76	5.43	5.27
95 <sup>th</sup> Percentile	5.60	5.95	6.43	7.47	6.96
<b>Light Intensity Activities (1.5 &lt; METs ≤ 3.0)</b>					
Mean	9.61	11.31	11.36	12.62	12.56
95 <sup>th</sup> Percentile	13.57	14.38	15.14	17.24	16.24
<b>Moderate Intensity Activities (3.0 &lt; METs ≤ 6.0)</b>					
Mean	17.70	20.75	21.64	24.98	26.95
95 <sup>th</sup> Percentile	25.74	27.16	28.79	34.17	37.66
<b>High Intensity Activities (METs ≥ 6.0)</b>					
Mean	-	37.34	41.51	48.69	50.10
95 <sup>th</sup> Percentile	-	49.66	58.50	69.62	73.23

No high intensity minute ventilation rates are included in Tables 3.25a-b for infants age 0<2 yrs. The distributions generated by U.S. EPA (2009) for hrs/day spent at MET values ≥6.0 for infants (age 0<2 yrs) suggest that this level of activity for a 1-hr duration is unlikely for this age group.

SB-352 is also designed to protect adults working at the schools, including pregnant women. For women in their third trimester of pregnancy, OEHHA is recommending using ventilation rates of moderate intensity activities based on the same reasoning cited above in Section 3.6.

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### 3.8 References

Adams WC. (1993). *Measurement of Breathing Rate and Volume in Routinely Performed Daily Activities. Final Report.* Human Performance Laboratory, Physical Education Department, University of California, Davis. Prepared for the California Air Resources Board, Contract No. A033-205, April 1993.

Allan M and Richardson GM (1998). Probability density distributions describing 24-hour inhalation rates for use in human health risk assessments. *Hum Ecol Risk Assess* 4(2): 379-408.

Allan M, Richardson GM and Jones-Otazo H (2008). Probability density functions describing 24-hour inhalation rates for use in human health risk assessments: An update and comparison. *Hum Ecol Risk Assess* 14: 372-91.

Arcus-Arth A and Blaisdell RJ (2007). Statistical distributions of daily breathing rates for narrow age groups of infants and children. *Risk Anal* 27(1): 97-110.

Black AE, Coward WA, Cole TJ and Prentice AM (1996). Human energy expenditure in affluent societies: an analysis of 574 doubly-labelled water measurements. *Eur J Clin Nutr* 50(2): 72-92.

Brochu P, Ducre-Robitaille J-F and Brodeur J (2006a). Physiological daily inhalation rates for free-living individuals aged 1 month to 96 years, using data from doubly-labeled water measurements: A proposal for air quality criteria, standard calculations and health risk assessment. *Hum Ecol Risk Assess* 12: 675-701.

Brochu P, Ducre-Robitaille J-F and Brodeur J (2006b). Physiological daily inhalation rates for free-living individuals aged 2.6 months to 96 years based on doubly-labeled water measurements: Comparison with time-activity-ventilation and metabolic energy conversion estimates. *Hum Ecol Risk Assess* 12: 736-61.

Brooks GA, Butte NF, Rand WM, Flatt JP and Caballero B (2004). Chronicle of the Institute of Medicine physical activity recommendation: how a physical activity recommendation came to be among dietary recommendations. *Am J Clin Nutr* 79(5): 921S-930S.

Butte NF, Wong WW, Ferlic L, Smith EO, Klein PD and Garza C (1990). Energy expenditure and deposition of breast-fed and formula-fed infants during early infancy. *Pediatr Res* 28(6): 631-40.

Butte NF, Wong WW and Garza C (1989). Energy cost of growth during infancy. *Proc Nutr Soc* 48(2): 303-12.

Butte NF, Wong WW, Hopkinson JM, Heinz CJ, Mehta NR and Smith EO (2000). Energy requirements derived from total energy expenditure and energy deposition during the first 2 y of life. *Am J Clin Nutr* 72(6): 1558-69.



## O-MBA20L7

Technical Support Document for Exposure Assessment and Stochastic Analysis,  
FINAL, August, 2012

CDC. (2000). Centers for Disease Control and Prevention, National Health and Nutrition Examination Survey (NHANES) 1999-2000. U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), Hyattsville, MD. Available online at: [http://www.cdc.gov/nchc/about/major/nhanes/nhanes99\\_00.htm](http://www.cdc.gov/nchc/about/major/nhanes/nhanes99_00.htm).

CDC. (2002). Centers for Disease Control and Prevention, National Health and Nutrition Examination Survey (NHANES) 1999-2000. U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS), Hyattsville, MD. Available online at: <http://www.cdc.gov/nchc/about/major/nhanes/nhanes01-02.htm>.

FAO. (2004a). *Human Energy Requirements: Report of a Joint FAO/WHO/UNU Expert Consultation*. United Nations, World Health Organization, Food and Agriculture Organization: Roma, Italy. pp. 107. ISBN: 9251052123; ISSN: 1813-3932. Available online at: [http://www.fao.org/documents/show\\_cdr.asp?url\\_file=/docrep/007/y5686e/y5686e00.htm](http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/007/y5686e/y5686e00.htm).

FAO. (2004b). *Population energy requirements software (included in the Human energy requirements: Report of a Joint FAO/WHO/UNU Expert Consultation)*. Food and Agriculture Organization of the United Nations, World Health Organization: Roma, Italy. Vol. 2005. pp. 107. Available online at: [http://www.fao.org/documents/show\\_cdr.asp?url\\_file=/docrep/007/y5686e/y5686e00.htm](http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/007/y5686e/y5686e00.htm).

Finley B, Proctor D, Scott P, Harrington N, Paustenbach DJ and Price P (1994). Recommended distributions for exposure factors frequently used in health risk assessment. *Risk Anal* 14(4): 533-53.

Gossett JM, Simpson P, Parker JG and Simon WL (2002). How complex can complex survey analysis be with SAS? [abstract]. Proceedings, SAS Users Group International Meeting, Orlando, April 14-17, 2002 (Cary, NC: SAS Institute Inc.) Paper 266-27.

Hamill PVV, Drizd TA, Johnson CL, Reed RB, Roche AF and Moore WM (1979). Physical growth: National Center for Health Statistics percentiles. *Am J Clin Nutr* 32: 607-29.

IOM (2005). Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids. Institute of Medicine, Food and Nutrition Board. National Academy Press, Washington DC. Available online at: <http://books.nap.edu/openbook.php?isbn=0309085373>.

Jenkins PL, Phillips TJ, Mulberg EJ and Hui SP (1992). Activity patterns of Californians: Use of and proximity to indoor pollutant sources. *Atmos Environ* 26A: 2141-8.

Kuczmarski RJ, Ogden CL, Grummer-Strawn LM, Flegal KM, Guo SS, Wei R, Mei Z, Curtin LR, Roche AF and Johnson CL (2000). CDC growth charts: United States. *Adv Data*(314): 1-27.

## O-MBA20L7

Technical Support Document for Exposure Assessment and Stochastic Analysis,  
FINAL, August, 2012

Layton DW (1993). Metabolically consistent breathing rates for use in dose assessments. *Health Phys* 64(1): 23-36.

Marty MA, Blaisdell RJ, Broadwin RL, Hill M, Shimer D and Jenkins M (2002). Distribution of daily breathing rates for use in California's Air Toxics Hot Spots Program risk assessments. *Hum Ecol Risk Assess* 8(7): 1723-37.

NOLS (2012). Excerpt from the National Outdoor Leadership School First Aid manual. Online at: [http://www.elbrus.org/eng1/high\\_altitude1.htm](http://www.elbrus.org/eng1/high_altitude1.htm).

OEHHA (2000). Air Toxics Hot Spots Program Risk Assessment Guidelines. Part IV. Exposure Assessment and Stochastic Technical Support Document. Office of Environmental Health Hazard Assessment, California Environmental Protection Agency, Sacramento, CA. Available online at: <http://www.oehha.ca.gov>.

OEHHA (2009). Technical Support Document for Cancer Potency Factors: Methodologies for derivation, listing of available values, and adjustments to allow for early life stage exposures. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment. Online at: [http://www.oehha.ca.gov/air/hot\\_spots/2009/TSDCancerPotency.pdf](http://www.oehha.ca.gov/air/hot_spots/2009/TSDCancerPotency.pdf).

Phillips TJ, Jenkins PL and Mulberg EJ (1991). Children in California: Activity patterns and presence of pollutant sources. Proceedings of the 84th Annual Meeting and Exhibition of the Air and Waste Management Association, June 16-21, 1991. Vol 17: Vancouver, British Columbia, Canada, 91-172.5.

Scrimshaw NS, Waterlow JC and Schurch B (1996). Energy and Protein Requirements. Proceedings of an International Dietary and Energy Consultancy Group Workshop, 1994 Oct 31-Nov 4. London, UK: Stockton Press.

Snyder WS, Cook MJ and Nasset ES, et al. (1975). Report to the Task Group on Reference Man, International Commission on Radiological Protection, No 23. Pergamon Press, Oxnard, CA, USA, pp. 338-47.

Spady DW. (1981). *Determination and expression of energy requirements*. Joint FAO/WHO/UNU Expert Consultation on Energy and Protein Requirements: EPR Repository M2760/E; 2002. Available online at: <http://www.fao.org/docrep/meeting/004/M2760E/M2760E00.htm>.

Stifelman M (2007). Using doubly-labeled water measurements of human energy expenditure to estimate inhalation rates. *Sci Total Environ* 373(2-3): 585-90.

Tippett KS and Cleveland LE. (2001). *Results From USDA's 1994-6 Diet and Health Knowledge Survey*. U.S. Department of Agriculture, Nationwide Food Survey Report No. 96-4. Available online at: <http://www.ars.usda.gov/SP2UserFiles/Place/12355000/pdf/dhks9496.PDF>.



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Technical Support Document for Exposure Assessment and Stochastic Analysis,  
FINAL, August, 2012

U.S. EPA (1991). OSWER Directive 9285.6-03 Human Health Evaluation Manual,  
Supplemental Guidance: "Standard Default Exposure Factors". PB91-921314.

U.S. EPA. (2002). *CHAD user's guide: extracting human activity information from CHAD  
on the PC*. Prepared by ManTech Environmental Technologies and modified March 22  
2002 by Science Applications International Corporation for the National Exposure  
Research Laboratory, U.S. Environmental Protection Agency. Research Triangle Park,  
NC. Available online at: <http://cfpub.epa.gov/ncea/cfm/recorddisplay.cfm?deid=146583>.

U.S. EPA (2008). Child-Specific Exposure Factors Handbook (Final Report). Chapter 6 -  
Inhalation Rates. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-  
06/096F, 2008. Available online at:  
<http://cfpub.epa.gov/ncea/CFM/recorddisplay.cfm?deid=199243>.

U.S. EPA. (2009). *Metabolically derived human ventilation rates: A revised approach  
based upon oxygen consumption rates*. U.S. Environmental Protection Agency, National  
Center for Environmental Assessment, Washington, DC; EPA/600/R-06/129F.

U.S. EPA. (2011). *Exposure Factors Handbook: 2011 Edition*. U.S. Environmental  
Protection Agency. EPA/600/R-090/052F, Washington DC.

USDA. (2000). *Continuing Survey of Food Intake by Individuals (CSFII) 1994-96, 1998*.  
CD-ROM. U. S. Department of Agriculture, Agricultural Research Service.

Westerterp KR (1998). Alterations in energy balance with exercise. *Am J Clin Nutr*  
68(4): 970S-974S.

Westerterp KR (2001). Limits to sustainable human metabolic rate. *J Exp Biol* 204(Pt  
18): 3183-7.

Wiley JA, Robinson JP, Cheng YT, Piazza T, Stork L and Pladsen K. (1991b). *Study of  
Children's Activity Patterns, Final Report*. Prepared for California Air Resources Board,  
Contract No. A733-149, September 1991.

Wiley JA, Robinson JP, Piazza T, Garrett K, Cirkensa K, Cheng YT and Martin G.  
(1991a). *Activity Patterns of California Residents. Final Report*. Survey Research  
Center, University of California, Berkeley. Prepared for California Air Resources Board,  
Contract No. A6-177-33, May 1991.

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**EXHIBIT C**



O-MBA20L7

**Comments Regarding Air Quality Impact Analysis and Mitigation  
Event Center and Mixed-Use Development at Mission Bay Blocks 29 – 32  
Final EIR Response to Comments (San Francisco, CA)**

Autumn Wind Associates, Inc.  
Newcastle, CA

Prepared for Tom Lippe, Attorney

Oct 30, 2015

O-MBA20L7

*Air Quality Comments for Event Ctr – Mission Bay Blocks 29-32 FEIR, San Francisco CA  
Autumn Wind Associates, Inc. 916.719.5472  
Oct. 30, 2015*

**I. Introduction**

Autumn Wind Associates provides this letter in response to air quality related information contained in the recently released Final EIR for the Event Center and Mixed-Use Development at Mission Bay Blocks 29 – 32 (hereinafter referred to as “Events Center” or “project”); we submit this comment letter at the request of Tom Lippe, Esq.

We continue to have serious concerns with certain portions of the EIR’s air quality analysis and mitigation, and specifically take issue here with a number of the Lead Agency’s responses to our comments submitted in August on the DSEIR. Details are provided below.

**II. BAAQMD’s NSR-Derived Thresholds of Significance Used by the Lead Agency Continue to Under-Represent Project Emissions Significance**

In our comments submitted previously on the DSEIR, we noted that the BAAQMD’s CEQA thresholds of significance, applied by the Lead Agency to evaluate the Event Center project’s emission impacts, were developed non-scientifically from NSR values that were designed to counterbalance anticipated growth in stationary source facility emissions under the jurisdiction of the BAAQMD. An inherent problem with using NSR emission thresholds for constructing CEQA thresholds is that the 9-county air basin’s stationary sources represent no more than a small percentage of the total emissions inventory.

Vehicle emissions within the basin, by contrast, represent the lion’s share of criteria pollutants and are chiefly responsible for the basin’s ozone nonattainment designations that stretch back decades. Similarly, the region’s nonattainment of particulate standards has been heavily influenced by vehicle emissions. To exemplify, fully 84% of NO<sub>x</sub> (ozone precursor) emissions in the Bay Area air basin are emitted by vehicles<sup>1</sup>, and not by stationary sources. The region has been designated nonattainment for PM<sub>2.5</sub>; fine particulate is generated almost entirely by combustion (including internal combustion occurring in vehicle engines), and monitored values

<sup>1</sup> A “vehicle” is typically characterized by its being self-propelled, and includes both onroad and offroad applications. See Table 4, pg. 6 for distribution of BAAQMD’s annual average emissions by major source categories; “Bay Area Emissions Inventory Summary Report: Criteria Air Pollutants Base Year 2011” at [http://baaqmd.gov/~media/Files/Planning%20and%20Research/Emission%20Inventory/BY2011\\_CAPSummary.ashx?la=en](http://baaqmd.gov/~media/Files/Planning%20and%20Research/Emission%20Inventory/BY2011_CAPSummary.ashx?la=en)

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[LC-AQ-4]



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*Air Quality Comments for Event Ctr – Mission Bay Blocks 29-32 FEIR, San Francisco CA  
Autumn Wind Associates, Inc. 916.719.5472  
Oct. 30, 2015*

in the region continue to climb annually; 28% of the total inventory is attributed to vehicles. Importantly, population (people) regionally continues its historical growth in lockstep with numbers of vehicles and vehicle-miles-traveled; despite substantial advances in technical on-vehicle controls and reductions in tailpipe emissions of both NOx and particulates over the years, the region continues to exceed federal and state air quality standards.

As we noted previously, establishing CEQA thresholds of significance levels using NSR levels is to automatically undercut emission reductions that should be obtained from each new “indirect source” (such as the Event Center that will attract new vehicle trips and related emissions) subject to CEQA review. By using outdated, non-scientifically designed NSR values, CEQA thresholds adopted by BAAQMD and borrowed for use by OCII will automatically underrepresent air emission significance, particularly when evaluated against past nonattainment designations and PM2.5 ambient air monitoring values that, despite recession effects, continue to reflect a slowly worsening trend line.

At FEIR pg. 13.13-15, the Lead Agency states that ozone levels have declined 17% over the last 20 years, despite increases in VMT and vehicle population numbers. The implicit rationale here is that improvements in regional ozone numbers reflect validly-set CEQA threshold values and are to answer for some of that gain, yet this is not true. No evidence is provided by the Lead Agency to show that ambient air ozone monitoring data to support the 17% figure is linked causally to the levels at which the CEQA thresholds, based on under-representative NSR thresholds have been set for NOx and ROG precursor pollutants. Real reductions in NOx emissions over the last 20 years attributable by use of the District’s CEQA NOx threshold on land use cases will represent, at mostly, only a tiny sliver of the total improvement picture if it represents any all. What answers for that 17% improvement statistic is not the District’s CEQA thresholds that were set on the under-representative NSR lbs/day values, but the extraordinary reductions availed by increasingly stringent tailpipe standards invoked at the state and federal levels over the last five decades.

NOx and ROG are ozone precursors, and vehicle emissions controls and their related regulations and improvements have focused on them almost exclusively across the last several decades. To exemplify the gains, federal NOx tailpipe standards for cars dropped (becoming more stringent) 35% in 1977, then 50% more in 1981, then another 40% off the 50% in 1994, then another 50% from there in 1999, then, from that 1999 level another 77% through 2009 model year. For SUVs, vans, and heavier trucks between 6000-8500 lbs, NOx reductions were imposed with a 10% reduction required in 1994, and then with an additional 65% - 95% depending on vehicle

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type by 2009<sup>2</sup>. By comparison, the BAAQMD’s NSR thresholds in 1999<sup>3</sup>, shown at FEIR pg. 13.13-15, were set at 15 tons per year for ROG, NOx, and PM10, equating to 80 lbs/day. Those NSR trigger levels would drop, once, to ten tons a year roughly a decade later, and CEQA thresholds upon which they were based were reduced similarly to current levels (54 lbs/day each for ROG, NOx; PM2.5; 82 lbs/day PM10). For the daily NOx threshold in effect now, this represents a 32.5 % reduction from the NSR-based 1999 threshold. How relevant was that to improving regional air quality, as judged by the 17% statistic? Comparing that reduction to the percentage NOx reductions contributed by increasingly stringent federal tailpipe emission standards, the Bay Area’s tailpipe onroad NOx, formative of ozone air pollution, decreased by at least sixteen times that amount on a percentage basis. (32.5% NOx threshold value decrease vs. decrease in NOx onroad tailpipe standards of 35% x 50% x 40% x 50% x 77%, or a net reduction of almost 97% via onroad NOx standards.)

Clearly, any inference by the Lead Agency in the FEIR that the CEQA thresholds, having been set arbitrarily on under-representative NSR thresholds, are to account for the 17% regional improvement in ozone air pollution over the past 20 years is unsupported by the evidence. In fact, it can and should be argued that only a 17% regional ozone improvement, as judged against the stunning improvements in mobile source emission reductions provided by federal and state regulation, is a clear and obvious indictment of the growth in indirect source emissions (including the 17 tons of ozone precursors likely underestimated for the Event Center project) resulting from BAAQMD’s improperly designed, under-representative CEQA thresholds of significance.

Further underscoring that mobile source criteria pollutants are decreasing not from local air agency programs but as a result of state and federal ones, the most recent summary report, the BAAQMD’s “Bay Area Emissions Inventory Summary Report: Criteria Pollutants Base Year 2011”, at pg. 13 attributes regional ROG (an ozone pre-cursor) improvements:

“CARB regulations on mobile sources have also significantly reduced ROG emissions. On-road motor vehicle emissions have declined over the years despite annual increases in Vehicle Miles Travelled (VMT). This is due to the fleet turnover, with newer, lower emitting vehicles replacing older, higher emitting ones. The introduction of Reformulated Gasoline Phase II (RFGII) in 1996 and the introduction of Enhanced Inspection and

<sup>2</sup> US EPA; [Emission Facts The History of Reducing Tailpipe Standards](http://www3.epa.gov/otaq/consumer/milestones.htm). See: [www3.epa.gov/otaq/consumer/milestones.htm](http://www3.epa.gov/otaq/consumer/milestones.htm) + &cd=1&hl=en&ct=clnk&gl=us

<sup>3</sup> See BAAQMD CEQA GUIDELINES Assessing the Air Quality Impacts of Projects and Plans; 1999; pg 16.

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Maintenance program (Smog Check II) in the Bay Area, which started in October 2004, have resulted in further reductions.”

At pg. 14, NOx strategies and improvements for the Bay Area are identified:

“Reductions in NOx emissions prior to 2011 were due in part to Air District regulations on combustion sources including refineries and power plants. Tighter emission controls on motor vehicles also significantly reduce NOx emissions. Smog Check II, introduced in the Bay Area in 2004, played an important role in achieving NOx reductions, as it requires that vehicles are tested and that failing vehicles are repaired. NOx emissions from on-road motor vehicles will continue to decline due to fleet turnover. CARB’s aggressive regulations on on-road heavy duty diesel trucks, buses, and construction equipment will continue to reduce NOx and diesel particulate matter.”

This excerpt reinforces the BAAQMD’s historical and largely exclusive focus on 1) imposing NOx reductions on the same stationary sources that represent only a very small margin of the air basin’s NOx inventory; and 2) continuing the historical reliance on the State and federal government for Smog-Check, cleaner vehicle tailpipe standards, and other “aggressive regulations” to reduce both NOx and PM engine emissions.

BAAQMD’s CEQA thresholds, adopted for use by OCII on the Events Center project EIR, have been and remain under-representative quantitatively based on non-scientific derived NSR thresholds. NSR-derived CEQA thresholds will fail to adequately counterbalance land use growth-related increases in new, indirect source (vehicle) emissions of the Events Center, along with emissions from other land use projects in the Bay Area, subject to CEQA review, and those land use projects will generate thousands of tons of emissions on an annual basis no differently—aside from being greatly under-evaluated by use of the District’s lax CEQA thresholds-- than those highly regulated local stationary sources operating under routine, severe restrictions by the air district.

In conclusion, use of the BAAQMD’s CEQA thresholds to evaluate the Event Center project’s impact significance for both onroad and offroad emissions have been based on under-representative NSR daily emission offset levels, and those levels, applied to evaluate the Events Center’s air impacts, will understate their significance to local and regional air quality. This is no more appropriate than the Lead Agency’s implication that the region’s 17% improvement in

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regional ozone over a 20-year period is attributable to those under-representative CEQA thresholds.

### III. NBA-Game Vehicle Trips Associated with Oracle Arena Appear To Have Not Been Relinquished For Use by SF Warriors at Proposed Events Center

At FEIR 13.13-45, the Lead Agency has again repeated its contention that basketball-related games at the Oracle Arena in Oakland represent existing baseline vehicle emissions which, already existing, are transferable to the new SF arena. The FEIR’s air emissions estimates rely on this baseline argument to avoid disclosing greater emission offsets that would otherwise be necessary to reduce the project’s emissions to less than significant levels.

“These trips occur now so they are part of the existing baseline condition. It is reasonable to assume that the Oracle Arena will not be host to another NBA franchise in the Bay Area, so no new vehicle emissions associated with NBA basketball games would be expected in the region. This assumption is supported by substantial evidence and vetted by OCII. The assumption was also accepted by the California Air Resources Board when it approved the project sponsor’s analysis of greenhouse gas emissions pursuant to its AB 900 application.”...

“The Specific Plan (Oakland Coliseum Area Specific Plan Final EIR) is based on Oakland’s assumption that all three current City of Oakland sports franchises (the Raiders, the A’s and the Warriors) will make independent business decisions to remain in Oakland, and at the Coliseum District, and that each of the sports franchises will have new, separate venues for their games. Consequently, the assumptions within the Coliseum Area Plan Final EIR are entirely different from those of the proposed project.

However, as we noted in our previous comments Oakland has clearly identified at various locations in its August 2014 Coliseum Area Specific Plan DEIR that it has assumed that its baseline involves retention of the Warriors, and hence EIR emissions estimates are predicated on that fact.

The issue here is not whether the Warriors intend to move to the new SF Events Center and that some existing vehicle trips will move with them, but whether the game-related vehicle trips the Events Center EIR has claimed in its emissions calculations and for mitigation value are transferable from the Oracle Arena. If the modernizing and expansion of the area, inclusive of

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the Oracle Arena, intends to keep those trips on their books (and the Coliseum SPA DEIR indicates they will), they cannot then also be claimed for application to the SF Event Center project (as they have been). We continue to contend that they cannot be applied in the Events Center project because they have not been relinquished by the existing facility that is anticipated within the Coliseum redevelopment process, and there is no evidence (a letter from the City of Oakland, a clear statement in the Coliseum SPA DEIR that they have not continued to count those NBA-franchise related vehicle trips, etc.) provided in the SF Events Center EIR to that effect. The Coliseum SPA DEIR anticipates modernizing the existing Oracle Arena with no substantive change in location, and retention of the NBA franchise or recruitment of a non-NBA sports team. At Coliseum SPA DEIR pg. 4.4-59 baseline emissions were identified for 2013. Further, the Oakland DEIR was released in July 2014, a year prior to issuance of the SF Events Center DEIR, and at least four months prior to the release of the Event Center NOP. Coliseum SPA DEIR pg. 4.4-59:

“CalEEModTM 2013.2.2 was used to evaluate (...) criteria pollutant emissions for (...) existing criteria pollutant emissions from the Coliseum District area (“Existing No Project”, or “2013 Baseline”).”

Showing in the screenshot below, Coliseum SPA DEIR pg. 4.2-61, Table 4.2-7 provides baseline operational emissions for the Coliseum project, inclusive of existing Warriors game trips, for the 2013 baseline year, and then again for the 2035 baseline year. According to the DEIR:

“Table 4.2-7 shows estimated average daily and annual maximum criteria emissions under current conditions (2013 Baseline), as well as the emissions projected from current land uses at the Coliseum District as they would occur in 2035 (2035 Baseline). These projected 2035 baseline emissions are based on a continuation of existing land uses, **vehicle trips, and VMTs**. (Emphasis added) Over time, regulatory changes at the state level are projected to go into effect, resulting in improvements primarily to vehicle exhaust emissions.”

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Chapter 4.2 Air Quality

**Table 4.2-7 Operational Criteria Pollutant Emissions - Change in Coliseum District Baseline**

Emissions (tons/year)			
Pollutant	2013 Baseline	2035 Baseline	Baseline Increment
ROG	26	21	-5
NOx	30	11	-19
PM <sub>10</sub> Total	9	9	0
PM <sub>2.5</sub> Total	3	3	0
Emissions (pounds/day)			
Pollutant	2013 Baseline	2035 Baseline	Baseline Increment
ROG	144	115	-29
NOx	165	62	-103
PM <sub>10</sub> Total	52	50	-2
PM <sub>2.5</sub> Total	17	15	-2

**Abbreviations:**  
CalEEMod™ = California Emissions Estimator Model  
CEQA = California Environmental Quality Act

Immediately after, the DEIR states:

“Table 4.2-8 shows average daily and maximum annual projected 2035 criteria air pollutant emissions with the Coliseum District project, compared with 2013 Baseline emissions levels, and the incremental increase of emissions. The table shows that for each criteria pollutant, in the year 2035, the development will emit more pollutants than the City’s threshold.”

A screenshot of Table 4.3-8 is provided:

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**Table 4.2-8 Coliseum District Operational Criteria Pollutant Emissions**

Emissions (tons/year)					
Pollutant	Existing (2013) Baseline	Future (2035) Coliseum District	Project Increment	Threshold	Greater than Threshold?
ROG	26	99	73	10	YES
NO <sub>x</sub>	30	51	21	10	YES
PM10 Total	9	44	35	15	YES
PM2.5 Total	3	13	10	10	YES

Emissions (pounds/day)					
Pollutant	2013 Baseline	2035 Coliseum District	Project Increment	Threshold	Greater than Threshold?
ROG	144	544	400	54	YES
NO <sub>x</sub>	165	281	116	54	YES
PM10 Total	52	243	191	82	YES
PM2.5 Total	17	73	57	54	YES

**Abbreviations:**  
CalEEMod = California Emissions Estimator Model  
CEQA = California Environmental Quality Act  
NO<sub>x</sub> = nitrogen oxides

The Coliseum SPA DEIR has made it abundantly clear in written and graphical form that it has assumed retention of the Warriors at their present Oakland area site or recruitment of a replacement non-NBA team, counted those related vehicle trips and their attendant air pollution impacts, and it has provided baseline emissions data for 2013 for estimation of emissions for the proposed Coliseum development, with Arena renewal, that reflects that retention. In Table 4.2-8 immediately above, the "Project Increment" column represents the difference between the Warrior's emission baseline values, inclusive of game-related trips that have been ongoing at the facility for decades, and the 2035 future-case projection. Nothing has been provided to show that the Oakland EIR has relinquished its historical NBA-franchise trips, and thus those "existing" trips and their emissions must not then be applied as, in effect, a credit in the SF EIR, since an automatic under-representation and under-mitigation of the Event Center's total, significant operational emissions (largely caused by vehicle trip emissions) will then occur. While this helps the Event Center Applicant since fewer emission offsets will need to be acquired to bring the project's significant emissions down to sub-threshold levels, it is not appropriate under CEQA.

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No information is found in Table footnotes or surrounding to reflect that trips factored into the 2013 baseline were somehow relieved of the increment of historical Warrior game-related trips that must be carefully accounted for in the CEQA review process for both projects, nor has the SF Events Center EIR ever provided actual evidence that the Oakland Coliseum project has relinquished or abandoned those baseline Warrior trips, already studied and accounted for under CEQA, to the Oracle Arena as it is redeveloped and expanded. Unless the SF Events Arena project can provide factual information from Oakland Coliseum SPA EIR administrators that shows that trip emissions associated with the long-established NBA-style games at the Oracle Arena will not continue with the Warriors or any other similar sports team, and that the Coliseum project has abandoned any intent to have a replacement sports team for the purposes of estimating the emissions of the redeveloped, new arena proposed for the Coliseum Specific Plan Area, the SF Events Center cannot claim or use any measure of them for their emissions estimates or for mitigation offsetting.

Finally, CARB's AB 900 GHG streamlined analysis process for large (>\$100 million) projects is not part of the CEQA process used to estimate and evaluate the proposed SF Arena's environmental impacts, does not afford the public effective review and input, nor is it subject to administrative review. Without evidence provided in the SF Events Center EIR of a potential for double-claimed Warriors trips, CARB likely erred if they assumed that Oracle Arena NBA trip emissions were wholly fungible with and transferable to the SF EIR. Before the SF Events Center can legitimately claim any benefit from Oracle's NBA-related vehicle trips for reducing its new, estimated vehicle emissions under CEQA, they must have been "taken off the books" in Oakland in order to prevent what would in effect be a double-counting. As we noted previously, those Oracle-based NBA trips cannot be transferred to San Francisco's proposed Events Center if they have been retained "on the books" in Oakland. Nothing in the FEIR proves otherwise.

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### IV. Project Mitigation to Reduce Construction and Operational Emissions Is Flawed

At FEIR pg. 13.13-53 the Lead Agency rebuffs concerns that Tier 2 engines and Tier 4 engines required in the SDEIR of all 195 pieces of project-related construction equipment may not provide adequate emission reductions:

"As a part of the implementation guidance, the City Planning Department presents the results of a statewide data summary gathered by the California Air Resources Board as part of compliance with the In-Use Off-Road Diesel Regulation. The data indicate the

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available construction equipment at various engine tier levels. These data indicate that in 2014 approximately 59 percent of all off-road equipment in the state were operating with Tier 2 engines or better. Given that the majority of equipment statewide is capable of complying with the conditions of Mitigation Measure M-AQ-1, it is reasonable to conclude that the measure represents feasible mitigation.”

No information has been provided in the SDEIR or FEIR as evidence, other than the statistic excerpted above, that all 195 pieces of project construction equipment will be available for work at the Event Center at all times necessary during the 26-month long construction process. Rather than contacting major construction firms expected to bid on the project to determine actual Tier 2 or better equipment availability, the Lead Agency has belatedly decided to rely on nothing more than the belatedly-developed statistic excerpted above. In actuality, this statistic reflects serious flaws; it acts as another example of the Lead Agency’s inexperience with construction vehicles and practices.

A statistical average may look good on paper but it cannot ensure provision of all 195 pieces of equipment that must meet the FEIR MM-AQ-1’s Tier, VDECs, and NOx requirements---only actual, compliant equipment available for use at the project will. Why did the Lead Agency fail to conduct a survey of construction firms that could be expected to bid on Event Center work? No information is provide in the EIR that actual fleets which can be expected to work at the Events Center project are available to meet the requirements of the mitigation measure. Further, the statistic provided by the Lead Agency does not say that 59% of all construction equipment vehicles in CA will meet Tier 2 or better status--rather, it says that all **offroad** vehicles do (as of 2014). All offroad vehicles are not all construction vehicles; in fact, construction vehicles are a small subset of all offroad vehicles. Moreover, the rate of compliance for construction vehicles, particularly large, expensive, long-lived ones (scrapers, excavators, pile drivers, etc.) will be far lower than the average for all **offroad** vehicles that include such non-construction equipment as ground support vehicles at airports, agricultural forklifts, and myriad other offroad, non-construction equipment types. Because the statistic represents all offroad vehicles in CA and not construction vehicles, it cannot be used to even roughly determine the proportion of construction vehicles supposedly available to the project with Tier 2 engines, VDECs, and 40% NOx control; hence, the statistic is irrelevant to the Events Center project environmental review and does nothing to refute our concerns expressed clearly at the SDEIR review stage. This is a major flaw, but others are no less important.

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Rather than relying solely on the FEIR’s statistic to respond to public concerns of construction mitigation challenges, the construction equipment list for the project found at FEIR Vol 6, pg. 413 of 1669 should have been used by the Lead Agency for comparisons to CARB offroad construction vehicle and equipment databases, and then, more importantly, to develop a survey of construction companies capable of working on the project for their compliant equipment lists. Other CEQA projects, particularly in the Sacramento area<sup>4</sup>, have involved detailed surveys of construction firms to determine their equipment compliance mitigation potential and availability. Just as importantly, CARB offroad regulations (as of 2011) no longer require VDECs be installed on all Tier 2 vehicles, nor will OSHA restrictions permit such due to sight-and-visibility concerns<sup>5</sup>. In reality, it is a near-certainty that all 195 pieces of offroad, each required to be Tier 2 or better engines *and* equipped with VDECs *and* producing 40% NOx reduction, will be unavailable—and unattainable-- for compliance with the mitigation’s requirements.

While the FEIR’s offroad emissions mitigation is unlikely to meet the Tier 2 or better requirement with mandatory VDECs, it is also virtually certain to fail the mandated 40% NOx reduction required of each piece of equipment. To an even worse extent than the VDECs requirement, the mitigation measure’s linked NOx decrement is not practicably obtainable since there are no CARB-approved VDECs products that will provide highly effective particulate filtering with that level of NOx destruction. While the Cleaire Longview product would produce DPM control with 25% NOx destruction, it was limited to onroad vehicles only, no CARB certifications were obtained after early 2013, and Cleaire has been out business for some time. Cleaire’s offroad counterpart product, the Lonestar product, was designed to produce similar emission benefits, but was limited to certain years of rubber-tired construction vehicles only. (We note that the construction equipment list for the Events Center project at FEIR Vol 6, pg. 413 of 1669, lists use of scrapers, excavators, and other types of construction equipment that are tracked, not rubber-tired.) The Johnson-Mathey EGRT product, capable of Level III particulate control with 40% NOx destruction has been CARB-certified for certain pre-2003 onroad trucks only. The Nett BlueMax DPF-SCR product, while producing substantial reductions of NOx and particulate, is certified only for certain-year stationary gensets. Finally, the ECS DPF catalyst with use of an aqueous diesel product will produce only Level II particulate control with 20% NOx destruction; however, the PuriNOx diesel fuel product has not been available for a number of years and thus that option is not viable.

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<sup>4</sup> Personal conversations with SMAQMD CEQA planner Karen Huss; October, 2015

<sup>5</sup> See OSHSB regulation regarding exhaust retrofit visibility; <http://www.arb.ca.gov/msprog/ordiesel/vdecssafety.htm>



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As written, the Events Center EIR's MM-AQ-1 requires that every piece of offroad construction equipment used at the project will be mitigated with required use of Tier 2 engines equipped with VDECs and 40% NOx reduction if similarly-equipped Tier 4 and then, next, Tier 3 equipment are not available. The measure mandates without exception that every piece of equipment to be used at the Events Center project, regardless of Tier, will include VDECs that must produce a collateral 40% NOx reduction. To our knowledge, there are no VDECs products, CARB-certified for use in CA, which will provide that level of NOx destruction. Further, we stress that M-AQ-1 requires the specified level of NOx destruction on both Tier 3 and 4 engines, and thus later model engines with relatively lower NOx emissions (due to more stringent emission standards) would still need to produce the 40% NOx decrement taken against either their respective Tier 3 or Tier 4 NOx certification levels.

We have provided here a screenshot of a relevant portion of M-AQ-1 from SDEIR pg. 5.4-35:

TABLE M-AQ-1-1 OFF-ROAD EQUIPMENT COMPLIANCE STEP-DOWN SCHEDULE		
Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 4 Interim	ARB NOx VDECs (40%) <sup>52</sup>
2	Tier 3	ARB NOx VDECs (40%)
3	Tier 2	ARB NOx VDECs (40%)

**How to use the table:** If the requirements of (A)(1)(b) cannot be met, then the project sponsor would need to meet Compliance Alternative 1. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 1, then Compliance Alternative 2 would need to be met. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 2, then Compliance Alternative 3 would need to be met.

b) All off-road equipment shall have engines that meet either U.S. Environmental Protection Agency (USEPA) or California Air Resources Board (CARB) Tier 4 off-road emission standards. If engines that comply with Tier 4 off-road emission standards are not commercially available, then the project sponsor shall provide the next cleanest piece of off-road equipment as provided by the step down schedules in Table M-AQ-1-1.

As the compliance alternatives above indicate, all tiered engines must be equipped with VDECs that will provide both particulate filtering and a reduction (against the particular engine's

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applicable emission standard determined by year of manufacture) of NOx by 40%. While this is almost certainly unattainable, SDEIR Table 5.4-8 (Mitigated Average Daily Construction-Related Emissions) clearly shows that the project has assumed it would, and has made a related emissions reduction claim for both particulate and NOx benefits to result from the mitigation measure's Compliance Alternatives. Because the construction industry in CA does not yet have enough Tier 4 offroad vehicles to readily supply all equipment types to large projects under concurrent construction such as the Events Center project<sup>6</sup>, because Tier 2 vehicles are not required by CARB to be equipped with VDECs, and because OSHA restrictions prevents all construction vehicles from being retrofitted with VDECs, M-AQ-1's mandated application of the related components to every piece of project-related construction equipment is probably unattainable.

Further, the requirement that each Tiered level of equipment have VDECs that will provide collateral reductions of 40% NOx appears to be impossible based on the unavailability of NOx destruction technology for construction equipment and as reflected by CARB's certified-VDEC listings. Finally, other than for what has turned out to be an inapplicable statistic, we remain unable to find substantive information in the Events Center FEIR, in response to our earlier-expressed concerns regarding M-AQ-1, that proves construction fleets in CA can meet the measure's requirements and that demonstrates that certified technologies are available in CA to provide the EIR's mandated and claimed emission reductions. As written, M-AQ-1 requirements and claimed emission reductions are likely unattainable; if this is correct, the flawed measure cannot be enforced nor will it provide the emission benefits claimed in the EIR to reduce the project's impacts to less than significant levels. M-AQ-1 and related emission benefits (NOx, PM10/2.5, reduced health risks) claimed for reductions of the project's impacts must be revised, with results recirculated for public review and comment.

### V. Use of a Qualified 3<sup>rd</sup> Party Specialist or Engineer Is Needed to Ensure Actual Mitigation-Required Construction Eqpt Emission Reductions

At FEIR pg. 13.13-55 the Lead Agency contends that a potential conflict of interest posed by the Project Sponsor's "review role in the mitigation measure" is negated by their requirement that the Construction Emissions Control Plan be reviewed or approved by OCII or its "designated representative". OCII argues that "air quality specialists" at SF Planning are capable of verifying

<sup>6</sup> Phase IV of the Folsom Dam Auxiliary Spillway project, US Army Corps of Engineers, has provided about 95% compliance with Tier 4 equipment mitigation, but without the Events Center EIR's mitigation to also provide 40% NOx benefit.

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Event Center construction fleets for compliance with the project's mitigation measures, pointing to unspecified experience with, for example, a harbor hoteling project, and "familiarity with modeling programs" used for air quality analysis. We note that the Lead Agency has used the term "air quality specialists" and not "Air Quality Specialists", indicating that their job descriptions likely reflect non-technical Planner skillsets rather than those required for an air quality agency engineering or specialist position involved with evaluating and verifying VDECs and CARB certifications; evaluating and verifying NOx reduction claims emissions for offroad construction equipment; evaluating and verifying engine Tiers on all pieces of offroad construction equipment; and ensuring that each and every piece of onsite equipment is verified and tracked regularly for hours of operation at the project site. Hands-on experience with construction vehicles of all types and vintages, emission control technologies, CARB regulations and aftermarket retrofit certification requirements, possessing CARB certification for performing visible emissions evaluations for construction equipment opacity violations, and other technical, hands-on, construction-related skillsets will be required to ensure that every piece of offroad construction equipment used at the Events Center project meets the highly-specific and technical requirements of M-AQ-1 for every day such equipment is used at the jobsite; it is highly improbable that a "planner" would possess such skillsets.

Further, "familiarity" can indicate little more than a vague awareness and thus it connotes little substance. As we argued in our comments previously, the Lead Agency should rely for onsite verification of the project's mitigation measures, in detail, on BAAQMD personnel or on an independent, trained, professional environmental specialist or engineer with expertise in air emissions, construction vehicles, and emissions control technologies and strategies used to control and reduce construction equipment emissions. The environmental compliance professional should be onsite daily, with weekly assessments in reports delivered to OCII. Based on a lack of experience with construction equipment, its availability, and with practicable construction mitigation, it is apparent that OCII has constructed M-AQ-1 in ways that are fundamentally flawed and the measure is unenforceable. Accordingly, OCII's choice of SF Planning personnel, or their own, to ensure compliance and enforcement of the project's air quality mitigations is likely to be similarly flawed. If OCII refuses to require use of highly qualified air pollution control personnel to ensure compliance and enforcement of M-AQ-1 and other air quality mitigations, we believe the MMRP must be amended to provide for regular (bi-weekly or monthly) independent audits provided by BAAQMD or a private, professional air quality consultant to verify equipment lists and details with actual vehicles on the project site; the auditor would have specialized training in visible emissions, air quality regulations, vehicle emissions and control technologies used in construction equipment, etc. Without such third-

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[LC-AQ-6]  
cont.

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## O-MBA20L7

*Air Quality Comments for Event Ctr – Mission Bay Blocks 29-32 FEIR, San Francisco CA  
Autumn Wind Associates, Inc. 916.719.5472  
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party verification the project will likely not produce the required emission reductions that have been claimed in the EIR in order to reduce the project's impact significance levels.

### VI. Renewable Diesel Should Have Been Made Mandatory in Construction and Operational Mitigation Measures

No substantive explanation is provided in the FEIR for why the Lead Agency has failed to require use of renewable diesel to mitigate offroad construction equipment emissions and for use in emergency standby generators. As we pointed out in our previous comments renewable diesel is readily available, and it provides criteria and carbon emission reduction benefits that cannot be matched by the biodiesel mentioned in the EIR, it routinely costs less than biodiesel, and in many cases it costs less or is on par with costs for regular diesel.

At FEIR 13.13-61 the Lead Agency has applied conditions to the use of renewable diesel in emergency standby gensets that reflects its inexperience and reluctance to require use of available technology that has demonstrated clear cost-effective emission benefits within the region. As we pointed out in comments on the SDEIR, renewable diesel is available at multiple locations throughout central and northern CA at costs on par with conventional diesel (and routinely less than the less-effective biodiesel mentioned by the Lead Agency in the Events Center EIR), its substantial carbon benefits are unmatched against regular diesel or biodiesel, and it produces positive reductions compared with regular diesel in particulate (-34%), NOx (-18%)<sup>7</sup>, and other pollutant reductions needed by the Events Center project. Use of renewable diesel in existing or new diesels requires no retrofitting and either does not affect performance or improves it incrementally. The Lead Agency's concern that renewable diesel's NOx benefit may be lost as a result of 12 miles of transport (see FEIR pg. 13.13-57) to the Event Center borders on the ludicrous, since traditional diesel (particularly from imported crude) is transported a greater distance, and because the Lead Agency has failed altogether to verify traditional diesel's transport distance to the Events Center for comparison purposes.

Renewable diesel's primary benefit is its extremely low carbon intensity; the Propel renewable diesel product we discussed in previous comments has zero land use or other indirect carbon intensity effect, and its (direct) carbon intensity (CI) is 68% less than traditional diesel's CI value; why, then, has OCII not embraced renewable diesel's carbon benefits that, importantly, will help offset the project's actual GHG emissions and criteria pollutant emissions? Renewable diesel is

<sup>7</sup> "Low Carbon Fuel Statistics", pg 9; <http://propelfuels.com/assets/hpr-launch/docs/california-low-carbon-fuel-consumer.pdf>

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[LC-AQ-6]  
cont.

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[LC-AQ-7]

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Autumn Wind Associates, Inc. 916.719.5472  
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readily fungible with traditional diesel for storage and has better product life characteristics. Its use in construction and onroad diesels requires no adjustments or adaptations, it is locally available, and it is functionally transparent with traditional diesel for use in diesel engines.

While the Lead Agency has refused to embrace renewable diesel for the Events Center project, its own parent agency has not. San Francisco's mayor publicly announced that the City-and-County had committed to 100% renewable diesel use last July, with full transition by the end of 2015<sup>8</sup>. The City of Walnut Creek committed to 100% use of renewable diesel previously, and relies on it exclusively now.<sup>9</sup> If the City of Walnut Creek and the City and County of San Francisco, with their experts in diesel technology and fleet management, and with ready access to BAAQMD air quality expertise, have embraced the multiple air and energy benefits of renewable diesel, what explains the Lead Agency's intransigent failure (FEIR pg. 13.13-57) to require its use in the Event Center's air quality mitigations? CEQA requires the use of all reasonable, feasible mitigations for the reduction of the project's significant air quality impacts; the Lead Agency's tepid response to renewable diesel is, against the evidence of its considerable benefits that has been readily available since prior to issuance of the project's SDEIR, inadequate to ensure its use on the project.

Further, if the "OCII or the City's air quality specialists" lack the expertise necessary to have already reviewed and selected renewable diesel as they should have (based on the City's adoption of it prior to issuance of the Events Center FEIR), and for what appear to be fatal flaws built into M-AQ-1 (as pointed out elsewhere in this comment letter), we again propose the project's use of a highly qualified, independent and unconflicted, professional environmental consultant, or BAAQMD specialist or engineer, with relevant expertise to ensure use of and compliance with the Event Center's air quality mitigations and to ensure the use of all reasonable, feasible options (including renewable diesel) for every day of the project's construction process.

### VII. The Lead Agency's Efforts on Behalf of the Applicant To Force Reduced BAAQMD Emission Offset Fees Jeopardizes the Project's Emission Reductions

<sup>8</sup> City and County of SF; press release dated July 21, 2015; <http://sfgov.org/news/2015-07-21/green-city-mayor-announces-use-renewable-fuel-city-fleet>

<sup>9</sup> Contra Cost Times; Sep. 9, 2015; <http://patch.com/california/walnutcreek/walnut-creek-switches-city-fleet-renewable-diesel-fuel>

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[LC-AQ-7]  
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[LC-AQ-1]

## O-MBA20L7

*Air Quality Comments for Event Ctr – Mission Bay Blocks 29-32 FEIR, San Francisco CA  
Autumn Wind Associates, Inc. 916.719.5472  
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At FEIR pg. 13.13-67 the Lead Agency appears to have rejected NOx offset fees estimated for the Events Center project, provided by BAAQMD:

SF Planning has been in communication with BAAQMD with regard to its suggestion that a higher fee may be warranted to offset project emissions to a less than significant level and found that BAAQMD could not establish that an increased rate beyond that of the Carl Moyer Program plus a five percent administrative fee could meet the "rough proportionality" standard required under CEQA.

No evidence is provided in the FEIR that identifies the criteria used by SF Planning to determine that costs for the Applicant's emission credits provided by the BAAQMD would be unable to meet the "rough proportionality" CEQA standard; this information must be provided for the public's review.

At SDEIR pg. 5.4-41, M-AQ-2b appears to have been written to require the Event Center's use of BAAQMD NOx credits:

"Mitigation Measure M-AQ-2b would require the project sponsor to pay an offset mitigation fee to the BAAQMD to fund emissions reduction projects that would reduce emissions of ozone precursors to below the applicable thresholds."

Based on information found in the FEIR, it appears that the Planning Department and BAAQMD have not resolved their disagreement on the costs for offsets to be provided by BAAQMD. It also appears that the Lead Agency has designed the above-referenced measure such that the project must acquire 17 tons (appearing to be underestimated based on comments noted elsewhere in this comment letter) of ozone precursor emission credits from BAAQMD. Found primarily at FEIR pg. 13.13-66, the Lead Agency appears to have indicated its intent to require the Events Center Applicant to pay no more than average emissions credit value established under the statewide Carl Moyer program. Nothing, however, requires that a local air district charge that value or less for emissions credits it establishes under the Program, nor can it since the average cost-effectiveness program values are established by actual supply-and-demand factors that float with market conditions that differ regionally and over time. The BAAQMD cannot be forced by the Lead Agency or the Applicant to provide credits at a price they feel is reasonable based on statewide or other averages. Further, lower cost tons in Sacramento or the San Joaquin valley are not relevant to the case at hand because the geographical equivalent of the "rough

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[LC-AQ-1]  
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proportionality” CEQA argument the Lead Agency has made would prevent their use for the Events Center project.

It seems that the Lead Agency clearly has the cart before the horse now. It first established that the project must purchase emission offsets from BAAQMD, but then later decided that their fees were not in “rough proportionality” (without providing any evidence or criteria as to what they consider “rough proportionality”) to the value of those same credits sold in other locations of the State—despite that the dollar values of those 17 tons of precursor emission credits to be found in Sacramento or the San Joaquin valley or elsewhere were made irrelevant by CEQA’s requiring that mitigation and impact be co-located as closely as possible. Notwithstanding the Lead Agency’s discourse that carries across both FEIR pages noted above, the FEIR’s response never settles the uncertainty of whether the BAAQMD will provide what the Lead Agency believes are the necessary tons of offsets needed by the project or how the Applicant’s fees of \$321,646 will buy those tons that the BAAQMD has indicated that it will sell for appreciably more. As written, the FEIR has failed to settle the issue and provide the reasonable level of certainty that the project’s emissions will actually be mitigated to less than significant levels beginning with construction startup. This is not acceptable under CEQA, and it is not appropriate that the Lead Agency attempt to dictate what market-based emission offsets/credits that it does not control are worth.

### VIII. Emission Offsets Required for the Project May Be Unacceptably Short-Lived

At FEIR pg. 13.13-67, the Lead Agency has not responded substantively or meaningfully to our earlier-expressed concern that emission offset credits for the Events Center project, created with short-term emission projects, will fail to provide durable emission benefits for the Events Center across its lifetime. Nothing in CEQA provides that short-term credits of several years duration would be adequate to offset the Events Center project across its 30 – 50 year lifetime, nor has the Lead Agency provided any evidence to the contrary. From FEIR pg. 13.13-67:

Another commenter states that the offset amount presented on page 5.4-41 of the SEIR would only offset a single year of emissions. This assertion is incorrect. Emissions offset programs replace existing high-polluting engines with cleaner more efficient engines and the incremental benefit of these replacements are realized for successive years into the future until the original engine would have reached the end of its useful life or its operation is prohibited by regulation (e.g., California Code of Regulations, Title 13,

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Division 3, § 2449(d)(2) (in-use off-road diesel regulation)). Other offset programs, such as the shoreside power unit implemented by the Port of San Francisco pursuant to the Final EIR for the 34th America’s Cup and James R. Herman Cruise Terminal and Northeast Wharf Plaza (Case No. 2010.0493E) continue to offset hoteling emissions of diesel ships in dry dock at Pier 70.

As noted elsewhere in our comments, the BAAQMD is required by Events Center EIR to provide precursor emission reductions to offset the 17 tons estimated in the EIR as required for the project<sup>10</sup>. However, whether those credits are produced by the BAAQMD or another entity proximate to the project area, the FEIR fails to require that they be derived from long-lived projects. As currently written in the EIR’s M-AQ-2b, it is possible that BAAQMD will fund short-duration projects with the Events Center offset fees, or, based on our expressed concerns that BAAQMD offsets may not ultimately be acquired for the project due to SF Planning’s disagreements with them over offset values, another credit-generating project approved by the Lead Agency may deliver only short-duration benefits. This would not provide the long-term emission reductions needed for the Events Center’s offsets.

In fact, the Moyer Program has funded projects that traditionally have provided emission credits for no more than an average of nine years, and the average life of all Moyer projects, including onroad projects of the type identified for possible application to the Events Center project, is seven years<sup>11</sup>. 2011 Moyer Program Guidelines require that the maximum project life for offroad compression-ignition equipment replacement projects is five years except that for excavators, skid steer loaders and rough-terrain forklifts the maximum is three years, and for crawler tractors, off-highway tractors, rubber-tired dozers, and workover rigs it is a maximum of 7 years<sup>12</sup>. Marine projects may be undertaken but with no more than a sixteen year life. Even at their longest, Moyer project emission credits purchased only once for the Event Center project will last no more than a minor portion of the project’s planned lifetime.

<sup>10</sup> As noted elsewhere in this comment letter, we argue that onroad and offroad emissions for the Event Center EIR have been underestimated as a result of a double-claim for existing vehicle trip emissions attributed historically to the Oakland Oracle arena, and because mitigations for operational and construction equipment contain unacceptable flaws and, with M-AQ-1’s requirements, those flaws result in unattainable and unenforceable components.

<sup>11</sup> CARB; 2006 Moyer Program Status Report, pg. 12;

[http://www.arb.ca.gov/msprog/moyer/status/2006status\\_report.pdf](http://www.arb.ca.gov/msprog/moyer/status/2006status_report.pdf)

<sup>12</sup> CARB; 2011 Moyer Guidelines, Ch.7; pg. 7-5;

[http://www.arb.ca.gov/msprog/moyer/guidelines/2011gl/2011cmp\\_ch7\\_07\\_11\\_14.pdf](http://www.arb.ca.gov/msprog/moyer/guidelines/2011gl/2011cmp_ch7_07_11_14.pdf)

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As currently devised, the Events Center EIR does not proscribe the purchase and use of short-term project (as little as one-year) emission offsets by the Applicant, nor does it prevent use of any combination of project emissions that would not match contemporaneously with Events Center significant emissions emitted at any point over its decades of planned life. Neither does the FEIR excerpt shown above provide information that disputes our previously submitted comment that mobile source credit-generating products, undertaken with Moyer funds, must be relatively short-term since project vehicles typically are rendered obsolete by new vehicles with lower emissions levels moving regularly into the marketplace. Rather than disputing our contention, the FEIR actually appears to have done no more than repeat it. This is not acceptable.

The Lead Agency has failed to define "successive years" in the excerpt above, nor has it identified a minimum project life for credits that it will approve for offsetting the Events Center significant emissions. Nowhere does the Lead Agency discuss purchase and use of successive emission reduction projects over the years so that the Events Center will always have adequate numbers of tons of reductions to offset its significant tons of emissions. Moreover, it has refused to prohibit use of short-term Moyer Project emission offsets that would last no more than a few years, despite the Events Center's emissions lasting decades longer. As currently written, M-AQ-2b provides no certainty that the project's tons of significant ozone precursors will be fully mitigated across their lifetime; in all likelihood, emission credits will provide no more than several years of emission reductions before their engendering Moyer projects expire.

For the reasons stated in this letter we believe that the Event Center EIR, amended after the DSEIR review, continues to reflect significant shortcomings that will result in unmitigated, significant, and excessive air quality impacts during the project's construction and then across its operational lifetime. Due to serious issues with M-AQ-1's construction, we believe that it cannot practicably provide the emission reductions claimed for it, and that the benefit of emissions from trips already on the books and associated with the Oakland Oracle Arena, to reduce the complement of all new Event Center trip-related emissions, is not acceptable under CEQA. In addition, serious questions remain regarding costs, availability, and sustained durability of tons of emission credits, likely underestimated due to flaws noted in this letter, that will be needed by the project to reduce its ozone precursor impacts to less-than-significant levels.

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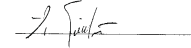
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*Air Quality Comments for Event Ctr - Mission Bay Blocks 29-32 FEIR, San Francisco CA  
Autumn Wind Associates, Inc. 916.719.5472  
Oct. 30, 2015*

Should you have any questions regarding this comment letter, please feel free to contact me at your convenience.

Sincerely,



Greg Gilbert

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O-MBA20L7

EXHIBIT D

O-MBA20L7

Law Offices of  
THOMAS N. LIPPE, APC

201 Mission Street  
12th Floor  
San Francisco, California 94105

Telephone: 415-777-5604  
Facsimile: 415-777-5606  
Email: [Lippelaw@sonic.net](mailto:Lippelaw@sonic.net)

August 13, 2015

<i>By Facsimile #(415) 558-6409 and U.S. Mail</i>	<i>By Facsimile #(415) 749-2525 and U.S. Mail</i>
Mr. John Rahaim, Director San Francisco Planning Department 1650 Mission Street #400 San Francisco, CA 94103	Commission on Community Investment and Infrastructure of the Successor Agency to the Redevelopment Agency of the City and County of San Francisco 1 South Van Ness Avenue, 5th Floor San Francisco, CA 94103  <u>Attn:</u> Custodian of Records for the Successor Agency to the Redevelopment Agency of the City and County of San Francisco

Re: Public Records Act/Sunshine Ordinance Request

Dear Mr. Rahaim and Custodian of Records for the Successor Agency:

This office represents the Mission Bay Alliance, an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project").

Pursuant to the California Government Code sections 6250 et seq and the San Francisco Sunshine Ordinance, Sec. 67.24, I request copies of the following records:

1. All records relating to monitoring or enforcement of compliance with mitigation measures adopted to reduce potentially significant air quality impacts of development projects approved by the City, the Redevelopment Agency of the City and County of San Francisco, or the Successor Agency to the Redevelopment Agency of the City and County of San Francisco, including any records reflecting audits of such compliance.

You may fully comply with this request by the traditional method of making the requested records available for inspection and copying.

Alternatively, you may fully comply with this request by both posting the requested records to the web page maintained by OCII at <http://www.gsweventcenter.com/>, and providing a written response stating the exact title of the hyperlink or hyperlinks on the web page that access the requested records.

EXHIBIT D



O-MBA20L7

John Rahaim  
Custodian of Records for the Successor Agency  
Public Records Act/Sunshine Ordinance Request  
August 13, 2015  
Page 2

Responsive records that are withheld from inspection should be specifically and separately identified in writing and accompanied by the claimed justification for withholding, as provided by California Government Code section 6255 and San Francisco Sunshine Ordinance Sec. 67.27, stating the nature of the document withheld and the basis for such withholding.

Should you contend that any portion of a particular document is exempt from disclosure, I request that the exempt portion be redacted and the remaining portions be produced. I reserve the right to object to any decision to withhold materials, or portions of documents.

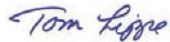
I also request copies of public records in electronic form where available, and in hard copy where copies in electronic form are not available.

In accordance with Section 6253(c) of the California Government Code and Section 67.25 of the San Francisco Sunshine Ordinance, please respond to my request within ten (10) days.

Any questions regarding my public records act request should be addressed to the undersigned.

Thank you in advance for your prompt attention and timely cooperation on this matter.

Very truly yours,



Thomas N. Lippe

T:\TL\Mission Bay\Corr\PRA\PRA007a PRA to SF and OCIL.wpd

O-MBA20L7

**EXHIBIT E**



Re: Public Information Request - air quality mitigation compliance ...

O-MBA20L7

**Subject:** Re: Public Information Request - air quality mitigation compliance monitoring  
**From:** Tom Lippe <lippelaw@sonic.net>  
**Date:** 9/30/2015 3:48 PM  
**To:** "Oerth, Sally (CII)" <sally.oerth@sfgov.org>, "Lamorena, Christine (CPC)" <christine.lamorena@sfgov.org>  
**CC:** Demetri Blaisdell <DBlaisdell@bsfllp.com>

Dear Ms Lamorena and Ms Oerth,

Thank you for your September 21, 2015, document upload to the Boies Schiller FTP site in response to my August 13, 2015, request for "[a]ll records relating to monitoring or enforcement of compliance with mitigation measures adopted to reduce potentially significant air quality impacts of development projects approved by the City, the Redevelopment Agency of the City and County of San Francisco, or the Successor Agency to the Redevelopment Agency of the City and County of San Francisco."

On September 11, 2015, you wrote: "In an effort to assist you, we can provide you with electronic documentation of a records search of some Planning Department projects within the past few years documenting compliance with mitigation measures for various development projects, mostly from private project sponsors along with the 1998 San Francisco Redevelopment Agency Resolution adopting environmental findings for Mission Bay North and South which includes mitigation measures."

On September 17, 2015, I wrote: "Before I answer your questions to narrow the search parameters, I think the most efficient way to proceed is for you to provide me with the "electronic documentation of a records search of some Planning Department projects within the past few years documenting compliance with mitigation measures for various development projects" referenced in your email below. "

The documents attached to this email are 6 of the 8 documents you uploaded on September 21, 2015. These 8 documents are not the type of documents I am looking for, nor do they appear to be "electronic documentation of a records search of some Planning Department projects within the past few years documenting compliance with mitigation measures for various development projects" referenced in your email below. "

Please advise.

Also on September 11, 2015, you wrote: "In an effort to help ensure that we are providing you with the specific records you are interested in reviewing, we would be grateful if you could further clarify your request by writing to Christine Lamorena and Sally Oerth with responses to the following questions."

Your questions and my responses follow:

EXHIBIT E

1 of 5

10/31/2015 2:44 PM

Re: Public Information Request - air quality mitigation compliance ...

O-MBA20L7

1. Do you have a specific start and end date for the records (i.e. only records after X date and before Y date)?

The last 10 years.

2. Can your request be narrowed to a particular geographical area or areas (e.g., Mission Bay)?

Downtown, Mission Bay, SOMA, Eastern Neighborhoods, Embarcadero and the Waterfront.

3. Are there particular types of "monitoring or enforcement" documents that you are looking for?

Yes. With respect to all construction projects in these areas for which the EIR identified significant air quality impacts from construction activities that could not be entirely avoided, the City, Redevelopment Agency, or the Successor Agency would have adopted mitigation measures to reduce the projects' significant air quality impacts and would have adopted a Mitigation Monitoring and Reporting Plan ("MMRP"). These MMRPs should have resulted in the generation of reports documenting the project's compliance, or lack thereof, with these adopted air quality impact mitigation measures. I want to obtain these reports.

4. Are there particular types of "development projects" in which you are interested?

All construction projects in these areas for which the EIR identified significant air quality impacts from construction activities that could not be entirely avoided, and for which the City, Redevelopment Agency, or the Successor Agency adopted mitigation measures to reduce the projects' significant air quality impacts and a Mitigation Monitoring and Reporting Plan ("MMRP")

5. Is there any other information that might narrow or more accurately focus our search for records?

Not at this time.

Thank you for your attention to this request.

Regards,

Tom Lippe  
Law Offices of Thomas N. Lippe APC  
201 Mission St., 12th Floor  
San Francisco, CA 94105  
Tel 415 777-5604 x 1  
Fax 415 777-5606  
e-mail: [lippelaw@sonic.net](mailto:lippelaw@sonic.net)  
Web: [www.lippelaw.com](http://www.lippelaw.com)

CONFIDENTIALITY NOTE: This and any accompanying pages contain information from Law Office

On 9/17/2015 3:57 PM, Tom Lippe wrote:

2 of 5

10/31/2015 2:44 PM



Re: Public Information Request - air quality mitigation compliance ...

O-MBA20L7

Dear Ms Lamorena and and Ms Oerth,

Thank you for your response.

Before I answer your questions to narrow the search parameters, I think the most efficient way to proceed is for you to provide me with the "electronic documentation of a records search of some Planning Department projects within the past few years documenting compliance with mitigation measures for various development projects" referenced in your email below.

We will provide you with secure file upload credentials shortly.

Tom Lippe  
Law Offices of Thomas N. Lippe APC  
201 Mission St., 12th Floor  
San Francisco, CA 94105  
Tel 415 777-5604 x 1  
Fax 415 777-5606  
e-mail: [lippelaw@sonic.net](mailto:lippelaw@sonic.net)  
Web: [www.lippelaw.com](http://www.lippelaw.com)

CONFIDENTIALITY NOTE: This and any accompanying pages contain information from Law Offi

On 9/11/2015 5:20 PM, Oerth, Sally (CII) wrote:

Dear Mr. Lippe,

In your request dated August 13, 2015 you ask for "[a]ll records relating to monitoring or enforcement of compliance with mitigation measures adopted to reduce potentially significant air quality impacts of development projects approved by the City, the Redevelopment Agency of the City and County of San Francisco, or the Successor Agency to the Redevelopment Agency of the City and County of San Francisco."

After beginning a search of our records, we have determined that this extremely broad request will require considerable City resources in order to respond. For example, a search of "all records relating to monitoring and enforcement" would require a search of all projects that have included mitigation measures and received environmental review clearance from the Planning Department or Redevelopment Agency (now OCII) since the California Environmental Quality Act was enacted in 1979. The City and Redevelopment Agency have approved hundreds, if not thousands of projects in that time. Records *relating* to monitoring and enforcement would not be limited to the hundreds or thousands of environmental documents themselves, but would conceivably include any document that even referenced air quality impacts or mitigation. In addition, many of these records are maintained offsite. The effort to retrieve off-site record for hundreds or thousands of projects, and search those records for any documents relating to air quality, will be time-consuming and unnecessarily involve use of scarce public resources.

The courts have applied a "rule of reason" to public records requests. See *Buck v. Gregory*, 65 Cal.2d 666, 676 (1967) (public records states are "subject to an implied rule of reason" and "inherent reasonableness limitations"). A department may apply this rule of reason when a request is so burdensome, persistent, or sweeping that it unreasonably impinges on a department's ability to perform its public duties. We would like to work with you in narrowing the request to identify the subject matter in which you are interested in order to conserve public resources. To that end, and in an effort to help ensure that we are providing you with the specific records you are interested in reviewing, we would be grateful if you could further clarify your request by writing to Christine Lamorena and Sally Oerth with responses to the following questions:

1. Do you have a specific start and end date for the records (i.e. only records after X date and before Y date)?

3 of 5

10/31/2015 2:44 PM

Re: Public Information Request - air quality mitigation compliance ...

O-MBA20L7

2. Can your request be narrowed to a particular geographical area or areas (e.g., Mission Bay)?
3. Are there particular types of "monitoring or enforcement" documents that you are looking for?
4. Are there particular types of "development projects" in which you are interested?
5. Is there any other information that might narrow or more accurately focus our search for records?

The more specific your request, the more likely you are to receive documents relevant to your research. In an effort to assist you, we can provide you with electronic documentation of a records search of some Planning Department projects within the past few years documenting compliance with mitigation measures for various development projects, mostly from private project sponsors along with the 1998 San Francisco Redevelopment Agency Resolution adopting environmental findings for Mission Bay North and South which includes mitigation measures. Please provide us with a secure file upload website to provide you with this documentation.

Please contact Christine Lamorena and Sally Oerth with any additional clarifications you can provide or any questions you may have regarding this process.

Sincerely,

The Office of Community Investment and Infrastructure  
The San Francisco Planning Department



One South Van Ness Avenue, 5th Floor  
San Francisco, CA 94103  
415.749.2580  
[www.sfocii.org](http://www.sfocii.org)

—Attachments:—

Mission Bay TMA 2009 Annual Report.pdf	14.9 KB
Mission Bay TMA 2010 Annual Report.pdf	625 KB
Mission Bay TMA 2011 Annual Report Final.pdf	604 KB
Mission Bay TMA 2012 Annual Report Final.pdf	416 KB
Mission Bay TMA 2013-2014 Annual Report Final 12 01.pdf	893 KB

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10/31/2015 2:44 PM



Re: Public Information Request - air quality mitigation compliance ...

**O-MBA20L7**

Transportation Management Plan MBS.pdf

455 KB

**O-MBA20L7**

**EXHIBIT F**



O-MBA20L7

SMITH ENGINEERING & MANAGEMENT



November 2, 2015

Mr. Tom Lippe  
Law Offices of Thomas N. Lippe, APC  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Responses to Comment on Draft Subsequent Environmental Impact Report for Event Center and Mixed Use Development at Mission Bay Blocks 29-32. SCN:2014112045**

P15003

Dear Mr. Lippe:

Per your request, I have reviewed the Responses to Comment ("the RTC") on the Draft Subsequent Environmental Impact Report (hereinafter "the DSEIR") on the above referenced Project in the City and County of San Francisco (hereinafter "the City"). As I was a commenter on the DSEIR in regard to matters involving transportation and circulation in a letter dated July 26, 2015 which was transmitted as Exhibit 1 to your comment letter of July 27, 2015, my current comments focus on the responses to my own comments, those of yourself and affiliated consultant Larry Wymer. In addition, several others including representatives of BARTD, Caltrans, Caltrain, UCSF and other have filed comments that parallel and reinforce our own. I address the responses to those comments as well.

My qualifications to perform this review were thoroughly documented in my letter of comment on the DSEIR dated July 26, 2015 and are incorporated herein by reference.

My current comments follow. They are organized in the order the City chose to respond to my and others, not in order of comments or order of importance.

#### Section 13.11.3, Response TR-2a

This section, in part, replies to our comments now labeled by the City as O-MBA10L4-15 and O-MBA10L4-17.

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#### Re MBA10L4-15:

MBA10L4-15 points out that while the DSEIR evaluated the Project's transportation *with* implementation of a Special Events Transit Service Plan in the context of six different event scenarios, it only evaluates the Project's transportation impacts *without* the a Special Events Transit Service Plan in the context of *only one* event scenario (without Giants game but with Basketball game). It requests the analysis *without* the a Special Events Transit Service Plan in the context of for *all six* of the event scenarios that were evaluated assuming the Special Events Transit Service Plan was in place.

There are several problems with the City's reply to this comment.

- The reply claims that the scenario of an overlapping evening game at AT&T Park with a Basketball event at the proposed Project without the Special Event Transit Services Plan taking place is a "worst-of-the-worst scenarios" that could only happen about 9 times a year, and then only if Muni were unable to deliver those services. However, with the Project located just a block from the emergency entrances to the UCSF hospitals, "worst-of-the-worst scenarios" are germane considerations for potential impacts on patient access to emergency facilities and the ordinary or special access/egress of emergency service providers.
- Despite the City's assertion that funding of Muni's Special Event Transit Services Plan is guaranteed, this funding is dependent on allocation of General Funds and discretionary transportation funds to this purpose, with such future allocations not guaranteed.
- The response also points to Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring as providing measures that could be implemented in the event Muni's Special Event Transit Services Plan is not implemented. However, many of the potential action measures in M-TR-18 are vague and conditional, and strict monitoring and enforcement is unlikely if the City through Muni has failed to deliver its promised Special Event Transit Services Plan.
- The response, although admitting no quantitative analysis of an overlapping Giants event at AT&T Park with an evening Basketball event at the Project and without implementation of the Muni Special Event Transit Services Plan was prepared, claims that the DSEIR essentially covers this situation for intersections and freeway ramps by having quantitatively analyzed the scenario of an evening Basketball Event with no Giants Event and no Special Event Transit Services Plan (Impacts TR-18 and TR-19) by virtue of having stated that these impacts would be additive to impacts in the "existing conditions without evening Giants event scenario" (Impacts TR-2 and TR-3) or to Impacts TR-11 and TR-12 (existing conditions with a Giants Event at AT&T Park). The problem with this is that the simple statement that the impacts are additive provides the public with no measure of the severity of the combined impacts.

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- The response also notes that Impact TR-20 presents Muni transit impacts for the weekday evening Basketball scenario without an overlapping Giants game or implementation of the Muni Special Event Transit Services Plan and adds text stating as follows: "Impacts to the T Third and 22 Filmore would be in addition to the significant impacts identified for the proposed project with implementation of the Muni Special Event Transit Services Plan in Impact TR-13 for conditions with an overlapping SF Giants evening game." It then concludes, "The revision does not change the analysis or conclusions presented in the SEIR." The problem with this part of the response, like that related to the impacts on intersections and freeway ramps is that the simple statement that the impacts are additive fails to inform the public of the extent of the change in severity of the impacts.
- With regard to failure to consider cumulative scenarios that lack implementation of the Muni Special Event Transit Services Plan, this failure is not remedied by addition of text to the SEIR that specify that cumulative analysis for the Basketball game scenarios include assumption of implementation of the Muni Special Event Transit Services Plan. Since the SETSP is not guaranteed funding in perpetuity and there is no assurance that Muni vehicles and personnel resources will be able to be devoted to this special service in lieu of serving regular transit needs, this change in language does not relieve the deficiency of the SEIR's failure to consider the cumulative scenario in absence of the Muni Special Event Transit Services Plan.

As a consequence of these flaws, Response TR-2a related to MBA10L4-15 is inadequate.

### Re MBA10L4-17

Comment O-MBA10L4-17 is part of a stream of comment demonstrating why the DSEIR is inadequate for having unreasonably understated the amount of weekday evening arena event access travel would occur during the evening commute peak hour (see our comment now labeled O-MBA10L4-16 for related discussion). Responding to this apart from the related issues in O-MBA10L4-16 evades the compelling nature of the joint comments that the DSEIR has understated the numbers of weekday evening basketball event attendees actually traveling on the transportation system in the evening commute peak hour (5 to 6 PM).

As to the direct substance of the comment and response, the DSEIR's decision to base the analysis of weekday evening games on a presumed starting time of 7:30 was predicated on experience over 3 seasons when the Warriors were a poor to marginal team and games starting earlier in the evening (at about 6 pm) averaged only 2.5 games per season. The comment documented that based on the 2014/2015 season performance, the combined total of weeknight regular season and playoff games starting at 6 pm (the normal start time for nationally televised weeknight games played on the West Coast) could easily be 16 games per season

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over the next several years or beyond. The inadequacies of the SEIR reply are as follows:

- The reply notes that the 2 to 3 preseason and up to 16 postseason games - number variable - (and in actuality, though not admitted in the response, a number of regular season games as well) could have a 6pm weekday start time. It also admits that such games would worsen traffic in the weekday peak commute period from conditions reported in the SEIR (failing to admit also adversely impacting transit and also failing to quantify the increase in severity of impacts on weekday pm commute peak. It claims that these start times are driven by such factors as TV deals, other team's travel schedules and outcomes of postseason series that are beyond the abilities of the Warriors to control - although it is nonsense for the response to imply that those considerations make the Project's significant impacts in the circumstances of these earlier-start events any less significant.
- The response claims that the quality of the team will vary from year to year and claims that this will make the situation of large numbers of national telecasts that might start at 6 pm inconsistent over the time horizon considered in the SEIR. This is a speculation not consistent with precedent. Once a team has achieved an iconic status and national following (as the Warriors have done in the recent season with winning the league championship and the most valuable player award and with the shiny new venue comprised by the Project reinforcing that iconic status), the number of nationally televised weeknight games (6 pm starts) is likely to increase over the next several seasons, and to reoccur despite hiccups in individual seasons (witness the pervasive national attraction to the Lakers and Celtics despite several bad seasons, or, in another sport, Notre Dame football). Moreover, the project arena may be used for other major weekday capacity events such as the NCAA basketball tournament quarter- and semi-finals that would have start times dictated by national TV (that is, 6 pm). Hence, the response's conclusion that "it is unlikely that this scenario [a large number of nationally televised weekday games starting at 6 pm] would occur on a regular basis during the time horizon addressed by the SEIR" is non-factual, speculative and inconsistent with the good faith effort to disclose impact that CEQA demands.
- Finally, the response claims that "consistent with common practice in the transportation planning profession, the SEIR includes an analysis of the highest demand with the most frequent conditions for evening events ...". We agree that the 7:30 start time is probably the most frequent weekday evening start time likely to occur. But the SEIR is in error and misleading in proclaiming that it is consistent with common practice in the transportation planning profession to only study the high-demand situation that occurs most frequently. In fact, when a high demand scenario that is not the most frequently occurring but is one that occurs frequently enough to be significantly impactful, it is the common practice in the transportation planning

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profession to study that frequent-enough circumstance as a separate scenario on a CEQA or other analysis. A good example of this is normal transportation planning practice with respect to major regional shopping centers. Studies are performed for an average weekday, and because shopping centers have their highest travel peaks on Saturday, for an average Saturday; these are the most frequently occurring peak conditions. But because shopping center travel has its highest peaks in the Thanksgiving to day-after-New Year holiday season and because the peaks in that approximately 38 day season occur frequently enough to be significantly impactful on their own and pose impacts of different severity than on the average weekday and average Saturday, normal transportation planning practice is to evaluate holiday shopping season weekday and Saturday impacts as separate scenarios. Another example is in the Napa Valley. There, it is the practice to evaluate a project's transportation impacts for the average weekday and average Saturday (which are the most frequently occurring impact situations) and to also evaluate impacts in the "crush" (harvest) season as a separate case as well because those impacts, occurring over a four to six week period are frequent enough and of such severity in comparison to annual averages to warrant consideration as a separate impact case.

- This matter cannot be dismissed as a disagreement among experts. A compelling argument that the SEIR should have evaluated a case scenario for weeknight capacity Basketball games starting at 6 pm is the fact that the SEIR did evaluate a scenario where there are an overlapping capacity Basketball event at the proposed Project and a Giants game at AT&T Park on a weekday evening. The SEIR claims that that type of overlapping event is likely to occur only about 9 times per year. It is obvious that, if a nine times per year occurrence rate is sufficient to require the SEIR to evaluate the Project in the context of that overlapping scenario, then the SEIR should also evaluate the weeknight 6 pm Basketball start scenario which is likely to occur more than 9 times per year in many years of operation.
- The fact that two hospital emergency entrances and the entries for emergency caregivers are located within a block of the Project site make the need for the SEIR to specifically evaluate impacts and mitigation in the 6 pm weekday event start scenario all the more compelling.

Hence, considering all of the above, the SEIR should have evaluated weekday Basketball events starting at 6 pm and is inadequate for not having done so.

### Section 13.11.3, Response TR-2b

This section purports to respond to our comments now labeled by the City as O-MBA10L4-2, O-MBA10L4-20, O-MBA10L4-39A and those of Caltrans (A-Caltrans-5) and others. These comments concern the SEIR's lack of analysis at intersections

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and freeway ramps that are on obvious approach and/or departure routes to/from and that are obviously or potentially capacity-challenged already.

The response begins by reciting the 6 freeway ramps and their related surface street intersections where analysis was conducted, a point not at issue in the comment. The key point of the comment is the locations the SEIR failed to analyze, not the places it did so. The reply continues, adding that the depth and approach is similar to other studies of completed and ongoing major project studies in San Francisco, and noting that the 1998 Mission Bay FSEIR did not address freeway ramp operations and queuing at all. However, what other studies did or didn't do is immaterial. What is material is what this SEIR should have studied but failed to do, and the response attempts to evade this.

The response continues for two paragraphs describing the configurations and conditions at the I 280 Mariposa off-ramp - one of the locations the SEIR did study. This section, not related to the issue of the ramps and ramp intersections that the SEIR should have but failed to study, concludes by observing that the LOS F conditions on the off ramp in the evening peak hour would be cured by Mitigation Measure M-TR-11c involving stationing a PCO at the ramp terminus intersection and waving traffic turning right to Mariposa eastbound through the traffic signal at the end of the off-ramp. But that conclusion is completely speculative. This commenter was a long term Giants season ticket holder at AT&T Park and this particular off ramp was on my normal route to the Park. The problem there is not that the signal causes queues to back up the ramp and onto the freeway mainline. It is that once a driver reaches the end of the ramp and has a green light, there is often no place to turn to on Mariposa because eastbound traffic is queued all the way back from Third Street. So placing a PCO there will be largely useless.

The response then discusses the I-80 westbound off-ramp to Fifth Street, and concludes that mitigation measure M-TR-2b, vague measures of unquantifiable effect to encourage travel by non-automotive modes would reduce the Project's impacts at this location. Again, this discussion of a location the SEIR did study is irrelevant to the issue that the SEIR should have but failed to study other locations - unless the implicit message is that, had it done so and discovered impacts, it would have just proposed vague, unquantifiable and ineffectual mitigations and declared the impacts mitigated.

Finally, after four lengthy paragraphs of largely irrelevant matter, the reply turns to the subject of the intersections and ramps that should have been studied and were not. The response notes that under CEQA Guidelines § 15130, defining the location or locations for study "*is within the lead agency's reasonable discretion*" and fundamentally claims that in defining what intersections and ramps were analyzed in this SEIR the City has exercised reasonable discretion. However, this assertion is undermined by content in the comments demonstrating that by prior and ongoing

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studies in the general area and by common observation, the City knew or should have known that certain intersections and ramps in the SOMA and Mission Bay area that are on logical access and egress routes to the Project site are capacity challenged and are likely to be adversely impacted by the Project, yet it did not study them in the SEIR. Hence, rather than exercising "*reasonable discretion*" as required by CEQA Guidelines, the City, in failing to study these locations, abused its discretion and failed to undertake the good faith effort to disclose impact demanded by CEQA.

That the City has failed to exercise reasonable discretion in this matter is reinforced by two considerations.

- Two UCSF hospitals are located a block from the Project site. Many of the intersections and ramps on logical access/egress routes to/from the Project that, at the City's discretion, the SEIR failed to analyze are on the advised emergency access routes from various points in the City and region to the hospitals and are posted on the UCSF web site. In excluding these intersections and ramps, the City clearly ignored public safety impacts of that decision.
- The State of California Department of Transportation (Caltrans) has commented on the DSEIR as follows. "Project-related queuing impacts on nearby State facilities should be analyzed" (see comment now labeled in SEIR A-Caltrans-5). Caltrans clearly believes the DSEIR has not assessed impacts on a sufficient number of freeway mainline, ramps and ramp intersections that are likely to be impacted by the Project. Caltrans opinion is due the same deference in this matter as that of the City.

The City's response continues, attempting to explain why individual or groups of intersections and ramps were excluded from study in the DSEIR. For example, the response cites 9 intersections along the Embarcadero and 15 along or east of Fourth Street that we claimed should have been studied. It claims that because the Project is shifted to its current location farther south-west from the originally proposed location on Piers 30-32, the primary routes to and from the Project site from Downtown, SOMA, the northern parts of the City and from the North Bay and the I-80 ramps would be shifted farther west, away from these intersections. But this is not true. Except for the relatively few instances in which there is a concurrent evening Giants game at AT&T park, the routes along the Embarcadero and along and east of Fourth Street remain the most effective and imageable routes to the currently proposed Project site and the parking facilities that serve it from much of the Downtown, SOMA, northern parts of the City, the North Bay and the I-80 ramps to and from the East Bay. Those paths are only likely to be altered on evenings with a concurrent Giants game. And if a massive shift of traffic further west was assumed in the City's thinking as it scoped the current SEIR and excluded the intersections along the Embarcadero and on and east of Fourth on that assumption, why didn't it add more intersections in the Eighth Street corridor (including but not

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limited to the ramps and intersections at Eighth and Harrison, Eighth and Bryant) and other intersections in the Van Ness, Franklin, Gough, Octavia corridors for example? The City has no good answer.

The response also claims that traffic passing through the Embarcadero intersections and the intersections along and east of Fourth would be less significant because a survey of baseball attendees at AT&T park *suggested* that many attendees who worked Downtown or in SOMA and drove to work left their cars at their commute parking locations and walked, used transit or took cabs to and from the ballpark. This type of data is of course irrelevant because those considerations should have already been taken into account in the SEIR's assumptions about mode split to the park from those districts. Moreover, this type behavior is likely to become increasingly uncommon as surface parking in those districts disappears and is replaced by parking garages that tend to close earlier than parkers could travel back to them at the conclusion of ballpark or arena events.

The response also cites new study of a single intersection, that of Eighth and Bryant as exemplar of why additional study intersections are not justified. This intersection is an anomalously complex intersection, and the effects of its complexities on traffic operations are difficult to replicate in theoretical delay/level of service calculations. Part of the complexity is that Eighth Street, which is one-way southbound north of Brannan becomes two-way south of Brannan. The complexity is compounded because columns that support I-80 as it crosses above Eighth between Bryant and Brannan are located in the center of Eighth Street and force southbound drivers that want to turn left at Brannan or go through or right there to pick the correct lane before departing the heavily congested intersection of Eighth and Bryant. Moreover, from this point of choice, drivers' views of what choices they must make before moving along Eighth toward Brannan are obscured by the columns and I-80 structure. In general, calculations of LOS at one location are poor predictors of delay/LOS conditions somewhere else. Moreover, in this case, the unique geometrics of the subject intersection and their unusual effects on driver behavior make the outcome of theoretical delay/LOS calculations anomalous rather than exemplar of anything elsewhere.

The City's response is clearly grasping straws to avoid analyzing the full array of intersections and ramps that, in a good faith effort to disclose impact, the SEIR should have evaluated. The City's response to the subject comment set is inadequate, and in continuing to evade analysis of potentially adversely affected freeway segments, intersections and ramps, the SEIR is defective and unsuited for certification.

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### Section 13.11.3, Response TR-2c

Response TR-2c replies to our comments O-MBA10L4-21 and -22, and those of others that the DSEIR understates transit and traffic impacts because it is based on outdated traffic and transit data unrepresentative of existing conditions at the time of filing the Notice of Preparation (NOP) for the SEIR.

The initial point in the response in Response TR-2c is to deny that the baseline data relied upon in the DSEIR was stale, and to claim that the City and its consultants took steps to assure that they relied upon data as up-to-date as feasible. This assertion is factually untrue.

Here we briefly review the facts of the situation, first with regard to transit data.

- The NOP for the Project was circulated on November 19, 2014.
- The data document relied on in the DSEIR transit impact analysis for Muni operations in the City states that this data was collected in the fall of 2010 and at some time in 2011.
- The data relied upon for services in the regional transit corridors serving the City was drawn from a SFMTA TEP project published in October 2012. Obviously, the regional transit corridor data published in that study reflects observations some time before October, 2012.
- Since those times of data collection, there have been a large number of development projects completed and occupied in the C-3, SOMA and Mission Bay and yet others were approved and under construction. In addition, the recovering economy has added considerable numbers of riders to the local and regional transit systems.

Clearly the transit data relied upon in the DSEIR was stale at the time the analysis was performed and this should have been obvious to the City and its consultants. Moreover, contrary to the claim in Response TR-2c that the City and its consultants took steps to assure that they relied upon data as up-to-date as feasible, new information released as part of Response TR-2c makes obvious that this is not the case.

- Several weeks before the DSEIR was circulated, the City issued updated summarizations of Muni patronage data and regional transit service data.
- Several weeks before the DSEIR was circulated, the City had BART patronage data that was very current – actually through April, 2015.

Yet the City did not update the transit analysis in light of this data before circulating the DSEIR or even acknowledge the existence of newer data in any way in that document. This is improper.

Response TR-26 does not present in full the new transit data set, the San Francisco Planning Department Memorandum *Transit Data for Transportation Impact Studies* dated May 15, 2015. Instead it presents a composite table compiled from the

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information in the cited memorandum (Table 5.2-43) sourced to Advant Consulting/Fehr & Peers/LCW Consulting and dated 2015. This composite table omits key data from the actual May 15, 2015 San Francisco Planning Department Memorandum (a copy of which is appended hereto as Exhibit 1) that indicate the data reflected therein were collected in 2013 for Muni operations and in 2012 for regional transit operations. This raises two key issues:

- Although the revised analysis presented in Response TR-2c is based on newer data, that data is also stale.
- In omitting, in the summary table published in Response TR-2c, the notations indicating the dates on which the newer data was collected, the response either deliberately or inadvertently misleads the public to believe the analysis in the response is based on current 2015 data, which it is not.

Although Response TR-2c mentions having BART's April, 2015 ridership data and claims to have relied on it, there is no evidence in the response of how and where the SEIR made use of it in any way. Although the City has placed the raw BART of April ridership data, ascribed to a May 1, 2015 submission by Val Menotti, BART Chief Planning & Development Officer, on the SEIR web site, the transmittal narrative is not presented nor is its translation into the regional screenline format relied on in the SEIR. We hereby demand that the conversion of the subject BART ridership data release be provided to the Mission Bay Alliance and its consultants in the format of the regional screenline analysis of the SEIR and that the period of comment be extended beyond the date of its provision to allow adequate time for review and comment on its implications. We also note that BART's own letter of comment on the DSEIR (now Comment A-BART) in its second paragraph of comment (a paragraph the SEIR ignores rather than enumerating for response (see SEIR page COM-19) notes as follows: "Given strong job expansion in San Francisco, BART has experienced unprecedented ridership growth (~25% over the last four years) which creates a number of peak period capacity challenges." This statement clearly demonstrates that any reliance on regional transit data as old as 2012 (which the SEIR continues to rely on) is an inaccurate portrayal of the background conditions on which the Project imposes impacts. Response TR-2c claims to have used the April, 2015 BART data

Response TR-2c presents a reassessment of impacts on the 22 – Fillmore and the T-Third lines based on the purportedly 'new' baseline data set and finds that deficiencies on these lines are not Project impacts because the Project's contribution to ridership does not exceed 5 percent of total ridership at the maximum load points. However, this finding of lacking a ridership contribution in excess of 5 percent at the maximum load point comes about only because of the failure to consider the scenario of weekday Basketball event starts at 6 pm and the SEIR's illogical refusal to consider that there is an offset between the time attendees pass through the arena turnstiles and the time those attendees are traveling on and impacting the transportation system (see our comments O-MBA10L4-17, O-MBA10L4-7, O-

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MBA10L4-16 and our comments herein with respect to Response to Comments TR-2a and TR-2d. Had either or both the 6 pm game start scenario and the proper offset between arena turnstile passage time and time traveling on the transportation system been considered, there would be much more Project travel on the subject lines during the pm peak commute hour (5-6 pm) than is considered in the SEIR and significant impacts on these lines would be disclosed.

Response TR-2c claims that use of the updated transit data does not result in any changes to impact determination for Muni transit presented in Impact TR-4. This conclusion is incorrect and misleading because the analysis was not performed on *adequately updated* (still stale) transit ridership data and because it was performed without considering reasonable Project contributions to evening commute peak hour transit ridership (because of failure to consider a 6 pm game start scenario and failure to consider the offset between time riding transit and time passing through arena turnstiles for the 7:30 game start scenario).

Response TR-2c also opines that, since ridership figures for the 22 Fillmore and T Third routes were obtained from SFMTA and reflect City's plans for changing the 22-Fillmore and completing the Central Subway by year 2020, the SEIR analysis for these lines accounts for development that occurred and is probable to occur through 2020. However, we note that the planning studies for those transit service changes on those lines were performed several years ago and the SEIR presents no clear evidence whether or not the SFMTA projections for those transit projects reasonably reflects the development boom that has occurred in the C-3, SOMA and Mission Bay in the intervening years and whether or not job infill in existing development due to a revitalized economy was reflected.

A final section of Response TR-2c attempts legalistic evasion of the issue of stale existing conditions data. This section starts by stating: "*Overall the transit impact analysis presents a reasonable representation of transit conditions based on available data for the Muni and regional transit providers and additional analysis is not required. Nor have commenters identified any flaws in the analysis that built upon the transit impact analysis.*" This statement is contrary to fact. Four year old data collected at a time when the job and development economy was just starting to begin recovering from a period of stagnation and decline is clearly not representative of conditions after four subsequent years of aggressive development and job boom. And for our part, in our comment letter of July 26, 2015 comprises 27 pages identifying flaws in the analysis that are compounded by the flawed and outdated transit data base assumed as "existing" conditions in the DSEIR. The response goes on to state: "*Although a somewhat different, and yet technically plausible, approach might have been possible, the City's approach is abundantly supported by substantial evidence and represents a reasonable exercise of technical judgment. In general, a lead agency's determination regarding how 'existing physical conditions without the project' could 'most reasonable be measured' is 'quintessentially a*

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[LC-TR-3]  
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*discretionary determination*". This statement misrepresents the issue in order to bend the framing of it to fit legal case precedents which are then cited in the response. However, this is absolutely not a technical disagreement about how to go about collecting or reasonably measuring existing transit conditions data. The issue is that the old transit data the City had on hand is simply not representative of the transit conditions that existed in late November, 2014 when the NOP was circulated.

With regard to the issue of stale traffic data (Comment O-MBAL4-21), Response TR-2c reiterates that the DSEIR adjusted the original counts to account for the opening of the UCSF Medical Center Phase 1 and the Public Safety Building that were nearing completion after the traffic counts were taken. This adjustment for those buildings was acknowledged in our comment O-MBAL4-21 and is not a matter of question. Response TR-2c goes on to state that subsequent traffic counts taken at three intersections in April 2015 confirm that the adjustments to the earlier traffic counts reasonably reflect the added traffic associated with the newly opened facilities cited above. This point is also not challenged in our comment, at least with respect to the three particular intersections counted. However, Response TR-2c then concludes: "*Because the adjusted volumes used in the analysis were similar to or higher than those collected in the field in April 2015, it can reasonably be inferred* [emphasis added] *that the traffic volumes used in the existing and existing plus project analyses also adequately reflect any changes that may be associated with newly completed projects further afield (e.g., in SoMa).*" The idea that this conclusion can reasonably be inferred is utter nonsense. The DSEIR made no attempt to quantify what projects in northern Mission Bay, SOMA and the C-3 were completed after 2013 or nearing completion by early 2015, how much traffic they would generate and where most of that traffic would go and what study intersections it would affect. The intersections that were counted in April 2015 (Third with Sixteenth, Fourth with Sixteenth and Fourth with Mariposa) are indeed "*far afield*", being well to the southeast from new developments in northern Mission Bay, the SOMA and C-3 and are unlikely to be affected much by developments in those areas<sup>1</sup>. But other intersections in the Project's scope of study are much closer to those development areas and are likely to be considerably more affected by traffic generated by the uncounted developments there as well as increased traffic to/from those areas due to job growth within existing uses due to the improved economy. The April 2015 counts do nothing more than show the SEIR traffic adjustments for UCSF Medical Center Phase 1 and for the Public Safety Building came reasonably close to getting it right for those particular facilities and those particular intersections. They carry no inference for other new development and for other study intersections farther afield.

<sup>1</sup> This is because traffic from northern Mission Bay, the SOMA and C-3 would likely take other routes journeying to and from the southeast that would not pass through the 3 intersections counted in April 2015.

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Because of these considerations, Response TR-2c is inadequate and the comment that the SEIR traffic baseline is stale remains unrefuted.

### Section 13.11.3, Response TR-2d

Response TR-2d concerns our comments now O-MBA10L4-7, O-MBA10L4-7, Caltrans (A-Caltrans-1) and others.

Our comments concern the fact that the DSEIR relies on turnstile data<sup>2</sup> on time of arrival at the Golden State Warriors current venue site (Oracle Arena) and other basketball venues to estimate how many attendees traveling to a game with a 7:30 PM start time would be traveling on the area transportation system in the 4 to 6 PM peak commute period versus in the 6 to 8 PM early evening peak shoulder period without considering the reasonable offsets between the time attendees enter the "paid" areas of the arena and the time when they were actually traveling on the transportation system.

Response TR-2d begins by stating as follows: *"For reasons explained below, the City disagrees with those comments and stands by its analysis, which reflects a number of evidence-backed, conservative assumptions. While some of the points raised in the comments seem intuitively believable, actual data from comparable situations show that the comments have exaggerated the likely numbers of people would arrive [sic] before 6 pm for a 7:30 pm event."*

Let us parse this introductory section of the response before moving to the further details.

Re: *"points raised in the comments seem intuitively believable",*

- It is undeniable fact that attendees occupy capacity on the transportation for a period of time that depends on the length of their journey and mode and that the period they occupy capacity on the transportation system occurs before the time they pass through the arena turnstiles.
- It is undeniable fact that even for attendees who go directly through the turnstiles into the paid section of the arena at the end of their trip to the site, there is a time offset between the time when they stop occupying capacity on the transportation system - when they debark onto the T Third platform, or the 22 Fillmore stop or find a parking place nearby or perhaps even start walking from BART, Caltrain or the other Muni-Metro lines - and the time they pass through the turnstiles.
- It is fact that some attendees wait outside the venue, perhaps to meet up with companions traveling separately (possibly to hand them their tickets, just soak in the atmosphere of the crowd arriving or for other reasons). So the

<sup>2</sup> The time attendees actually enter the "paid" areas of the arena.

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[LC-TR-3]  
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[LC-TR-4]

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time these attendees occupy capacity on the transportation system is even more offset than those who enter the arena directly.

- It is fact that some choose to have drinks or meals at restaurants and bars outside the venue before entering the arena and that the offset between when these attendees occupy capacity on the transportation system and the time they pass through the arena turnstiles is even greater yet.

These considerations are not just *"intuitively believable"*; they are undeniable fact and the SEIR's analysis has failed to take them into account.

Re: *"the comments have exaggerated the likely numbers of people would arrive [sic] before 6 pm for a 7:30 pm event."*

The fact that time of arena event attendees' time on the transportation system is offset from the time they pass through the arena turnstiles for the reasons stated above is not a newly-discovered concept or theory; it is a fact the City and its consultants knew or should have known. It is the City's responsibility to have reasonably considered the offset factors in the SEIR and, based on that, reasonably estimated the number of arena attendees who would be impacting the transportation system during the evening commute peak hour in the case of a weekday evening arena event starting at 7:30 pm. We have made a reasoned effort to estimate how many attendee's travel to such an evening event would be offset into the evening commute peak hour. The City and its consultants have made absolutely no attempt to consider the offset factors in estimating impacts of travelers to a 7:30 pm arena event start on the transportation system in the evening commute peak hour. Hence, the City is in no position to opine that our reasonable estimate based on those offset factors is *"exaggerated"* since it didn't try to make such an estimate at all.

Re: *"the City disagrees with those comments and stands by its analysis..."*

This is an attempt to transform what is a matter of fact into a disagreement among experts in the hope that courts will grant deference to the City's opinion in the matter. However, since this is a clear matter of fact, the response is inadequate and the City has refused to make the good faith effort to disclose impact that CEQA demands.

Here we consider of details of Response TR-2d.

Response TR-2d in the last paragraph of Volume 4, page 13.11-41 states:

"As shown in the table on SEIR p. TR-37 of Volume 3 of the SEIR, multiple basketball

venues from various sources were evaluated to derive the arrival patterns at the

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[LC-TR-4]  
cont.



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proposed project arena. Of these, two locations (Oracle Arena in Oakland and Barclays Center in Brooklyn) separately reported arrivals occurring more than one and a half hour prior to the start of a basketball game. The remaining facilities reported all arrivals occurring more than one hour before to the start of a game, most likely because those occurring more than one and a half hour prior to the game represent a small fraction of the total attendance. The average percentage of arrivals occurring between 5:00 and 6:00 p.m. for those instances where arrivals occurring more than one and a half hour prior to the start of a basketball game (i.e., between 5:00 and 6:00 p.m. for a typical game starting at 7:30 p.m.) is less than 2.5 percent. Thus, to account for potential daily variability in arrival patterns, as well as the additional time it may take for attendees to enter to the event center after their arrival at the site or nearby vicinity, the SEIR conservatively assumed that more than twice as many attendees as the average (i.e., 5 percent) would arrive between 5:00 and 6:00 p.m."

This section of the response is misleading in several respects. Although Volume 3, page TR 37 presents 7 data sets obtained for 6 NBA basketball venues, examination reveals all of the data is turnstile entry data and only 3 of the data sets for 2 venues provided useful data measuring turnstile arrival times earlier more than 1.5 hours before game start time (which would definitely put travel by those attendees into the 5 to 6 pm evening commute peak period). One of those is for the Warriors at their current venue, Oracle Arena, and shows only 1 % of attendees arriving more than 1.5 hours before game start time. The other two are for the first two years of operations of the Barclays Center in Brooklyn which respectively showed 2.0 and 4.1 percent of attendees arriving more than 1.5 hours before the start of an evening basketball game.

Let us put this data in perspective. The Oakland-Alameda Coliseum complex on which the Oracle Arena sits has a total of almost 10,000 parking spaces, more than enough spaces to accommodate the entire Arena capacity attendance if attendees arrived at two persons per car occupancy. This facility is noted for tailgating before basketball games as well as before other events. In addition, persons arriving at the complex by BART can readily be observed joining friends who drove and parked at their tailgates. Because of this, the observed 1 percent of attendees turnstile count for Oracle is probably under-representative of the numbers of attendees who actually arrive on the premises more than 1.5 hours before game start by a factor of 25- to 30-fold or so.<sup>3</sup>

The other data sets from Brooklyn show turnstile counts at the Barclays Center more than 1.5 hours before game start at 2 percent in the initial year and 4.1 percent in the second year of operation. These percentages likely reflect in part attendees unfamiliar with a new venue and adapting their pregame behavior as they become more knowledgeable. But neither of the two years turnstile data provides any

<sup>3</sup> We note that it would not have been difficult or costly for the City, its consultants or the Project sponsor to have taken aerial photos of parking at the complex 1.5 hours before game start and again some time after game start, counted the cars in each, and used the relative numbers as a reasonable surrogate measure of what percentage of attendees arrive 1.5 hours before event start.

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[LC-TR-4]  
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indication of how many of the attendees actually arrived in the vicinity of the Barclays Center more than 1.5 hours before event start (hence actually traveling on the transportation system in the pm commute peak period).

The SEIR takes these three data sets, averages them, finds them to be less than 2.5 percent of total attendees, doubles that to 5 percent and assumes that becomes a "conservative" estimate covering all the considerations why attendees might have arrived in the Project area 1.5 hours or more before event start (hence been traveling on the transportation system in the pm peak commute hour.). The problem with this is, there is nothing that connects the turnstile percentage of attendees entering the arena more than 1.5 hours before event start to the percentage who arrive near the venue site 1.5 hours before or indicates that double that turnstile count is a "conservative" estimate of that latter item. The claimed "evidence backed, conservative assumptions" the City claims to have made in this matter has no direct quantified or quantifiable relationship to the "evidence" the SEIR cites. The City, its consultants or the Project sponsor could easily have easily and inexpensively measured attendee arrivals to the Warriors current venue environs (the Oakland Alameda Coliseum property) via motor vehicle and BART, but they failed to do so. By 'deeming this unnecessary' as it does on page 13.11-42, Response TR-2d expresses preference for the SEIR's own unsubstantiated guess as to how many attendees of a 7:30 pm start basketball event are actually traveling on the transportation in the pre-6 pm evening commute peak hour rather than having reliably measured data. And that guess is highly favorable to the Project since the low number of travelers in it minimize the chance of Project impacts on the transportation system being disclosed for the pm commute peak hour. The response is inadequate and inconsistent with the good faith effort to disclose impact that CEQA demands.

### Section 13.11.3, Response TR-2f

Response TR-2f replies to our comments O-MBA10L4-3, O-MBA10L4-4, O-MBA10L4-23, O-MBA10L4-24, and O-MBA10L4-27. The first and fourth of these comments relate to the SEIR's failure to define the severity of the Project's traffic impacts. The second and third of these comments relate to failure to evaluate impacts at intersections under PCO control and the fifth relates to the SEIR's failure to account for the effects of train passage in the analysis of the intersection of Sixteenth, Seventh and Mississippi. Both of these latter matters also ultimately go to the issue of failure to define severity of impacts.

With regard to the failure to address changes in severity to impacts at locations already operating under conditions qualifying as impacted, the first three paragraphs of the response are padding, reciting definitions of LOS that are not in dispute in the comments. The next three paragraphs of the response on page are legalistic arguments about whether CEQA requires disclosure of distinctions in severity to

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[LC-TR-4]  
cont.

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[LC-TR-6]



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impacts where conditions are already in a state considered impacted. Without engaging in the argument of legal matters, we can state that from an engineering perspective, distinctions in severity of impacts represented by changes in delay in the LOS/delay computations are highly significant. If the computations at a ramp or intersection already at LOS F show changes of a couple seconds of delay or so, this is hardly perceptible to drivers and is not indicative of meaningful change in severity of impact. But if the computations show changes of, for example, a half-minute or a minute or more, this is indicative of a dramatic change in severity that is highly perceptible and involves potential for queue blockages of additional lanes or upstream locations. Since the calculation procedures are capable of generating these estimates of delay and distinction of severity, this information should not be suppressed and ignored – doing so appears to be inconsistent with the good faith effort to disclose impact that CEQA demands.

The response goes on for four more paragraphs discussing the evolution of LOS computation techniques, the City's practices in use of them, and the technical meaningfulness of them. The single point in these paragraphs worthy of consideration can be summarized as follows: Calculation procedures to determine delay have been validated for instances where the subject location is below or slightly above capacity; in circumstances where capacity is greatly exceeded the validation is less strong and therefore the delay predictions are less reliable. We acknowledge this. But it is still clear if, say, an intersection or ramp is a couple seconds over the LOS F threshold in the existing condition and addition of project traffic computes to add a half minute or minute or more of delay, those are significant changes in severity. This is regardless of the fact, because of the lower reliability of the delay calculation in the LOS F zone, that if the traffic were actually added in the field and the changes in delay were measured, the results might be 27 seconds added instead of a half-minute or 55 seconds added instead of a minute.

Response TR-2f continues for another page-and-a-half of irrelevant speculation that in the future, consideration of LOS/delay may be excluded from CEQA consideration. For the present, LOS is a CEQA consideration, the City has relied on it and that portion of the response can safely be dismissed.

Response TR-2f continues, replying to the issues in O-MBA10L4-4, O-MBA10L4-23, concerning failure to evaluate LOA/delay impacts at intersections under PCO control. This comment concerns specific tables in DSEIR Volume 1 that are explicitly identified in the comments, Tables 5.2-47 and 5.2-48, respectively located on pages 5.2-172 and 5.2-174. These tables have no entries for LOS or delay at certain intersections, with the normal space for delay and LOS entries in those tables filled with the notation "PCO Controlled". The response points to completely different tables, Tables 5.2-34, 5.2-35 and 5.2-36 as having delay and LOS entries for those intersection locations. This response evades the following questions:

- What is LOS and delay at the times these intersections are PCO controlled?

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[LC-TR-6]  
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- Does the SEIR conclude that PCO control mitigates significant impacts at these locations or do they remain significantly and unavoidably impacted? The response is inadequate.

The final portion of Response TR-2f concerns the apparent lack considering the effect of Caltrain train movements on delay and LOS at the intersection of Seventh, Sixteenth and Mississippi. The response confirms that the SEIR analysis did not attempt to analyze the effect of Caltrain train movements on the LOS/delay compiled for the intersection of Seventh-Sixteenth and Mississippi. It points out that the SEIR analysis shows that with the reductions in general traffic lanes associated with the 22 Fillmore Transit Priority project, together with Project traffic, with or without overlapping Giants games, this location would be at LOS F. It then claims that, because the computation of delay is less reliable when LOS F conditions are already evident, there would be no point to attempting to further quantify the situation with respect to the effects on the subject intersection by Caltrain movements on the immediately adjacent grade crossing of Sixteenth. This absurd response ignores and attempts to evade the key point of the comment which is that had Caltrain movements been considered, there is a good prospect the analysis might have shown that traffic on Sixteenth would queue to an extent that might obstruct the intersections of Sixteenth with Owens, Sixteenth with Fourth, and even Sixteenth with Third. Since these locations are on a critical emergency and regular access route to the UCSF hospitals it is imperative that such an analysis be done (a good case for micro-simulation) and the SEIR is critically deficient for having failed to perform it.

## Section 13.11.3, Response TR-2g

This response replies to our comments O-MBA10L4-3-13a and O-MBA10L4-18 which concerns the criteria the City uses to define impacts on transit.

To our comment that the ordinary transit impact criterion, ridership in excess of 85 percent of screenline capacity based on scheduled service, or by scheduled line service where an individual line evaluation is ordered, is unreasonable and unrealistic. Our reasoning is based on the fact that Muni rarely, if ever actually delivers the effective capacity of full scheduled service due to missed runs, bunching and skip-stopping and other issues related to lack of schedule reliability or on-time performance. The response describes how passengers are counted, but this clearly does not include those left standing at bus stops and LRT platforms. It also claims that the procedure takes into account the schedule reliability and on-time performance issues, but demonstrates no clear way that this is true. It also fails to address the issue that, when only a screenline analysis is performed, this assumes the excess capacity on one line is available to serve the excess ridership on another, while in reality, most people's travel patterns are well served by only a single line.

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[LC-TR-6]  
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[LC-TR-7]



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The response then moves to a key issue, that the City has relaxed the normal threshold of impact from 85 percent to 100 percent of capacity for this particular Project. One of our criticisms is that relaxation of the normal threshold of significant impact for one favored project is inconsistent with the good faith effort to disclose impact that CEQA demands. The response's reply to this is that San Francisco already did the same for the 34<sup>th</sup> America's Cup competition event and New York City does it all the time for large special events. But the America's Cup competition is/was fundamentally different from the proposed Project in that it involved large-attendance spectator event competition occurring over just a few days in a single year; the Project involves events on over 200 days per year repeated over many, many years. Moreover, the fact that nobody noticed that the City changed the rules for that specific event does not make it right then and does not justify making a special change of the impact criteria for this Project or for any project. As regards to what New York City does for transit impact criterion with respect to large special events there, that is irrelevant to San Francisco.

A key issue identified in the comments is that while event-attendees may tolerate 100 percent-of-capacity crush loads (a justification the DSEIR used for the relaxed impact criterion), the problem is that this imposes a special misery on the people who are normal users of the affected lines at the times. Response TR-2g fails to address this relevant point. Furthermore, the issue of who the regular riders who are adversely impacted when special event attendees overcrowd and slow the operation of the affected transit lines has Social Justice implications. We explore this topic, which the SEIR fails to address, below.

Other commenters provide evidence that the community south of the Project site served by the T Third line is a disadvantaged community that is adversely impacted by the effects of transit services to the Project that create social justice issues unaddressed in the SEIR. Here we discuss transit operations considerations that lend support to the assertion that the SEIR has failed to address social justice issues.

- Regular users of the T Third will suffer unpleasant overcrowding due to event-goers in the pre-event and post-event periods, having to deal with scarcity of seating and uncomfortable sharing of standing space with boisterous pre-event goers and over-exuberant or angrily depressed (and often liquor-fueled) departing event goers.
- The City's decision to reduce the threshold of significant impact from the normal 85 percent of capacity to 100 percent of capacity exacerbates the overcrowding impacts on the regular user community.
- Special T Third shuttle services to the Project site that turn back near the intersection of Sixteenth and Third occupy time slots that could be filled by runs that serve the community to the south in this corridor.

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[LC-TR-7]  
cont.

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- Heavy boardings and alightings associated with event arrival and departure travel increase station dwell times, slowing service to normal users south of the Project site. Delays associated with shuttle operation turn-backs do the same. Also, turn-backs tend to create big gaps in service south of the Project site, as is reportedly already evidenced as the result of Giants games.
- Reconstruction of the T Third station platform near the intersection of Third with Sixteenth to accommodate Project crowds, a reconstruction that will require over a year, will inevitably delay T Third services to the disadvantaged community to the south over the duration of the construction period. At times this may even require substitution of inferior bus services.

All of these constitute transit operational reasons why the SEIR should have included a Social Justice Impact section that has not been provided.

Section 13.11.3, Response TR-2h

This response replies to our comments O-MBA5-6, O-MBA10L4-9, O-MBA10L4-10, O-MBA10L4-11, O-MBA10L4-12, O-MBA10L4-26 and O-MBA10L4-36 and those of others. The points of these comments are summarized as follows:

- The cumulative analysis, pegged to Year 2040, 25 years from now, is purely speculative.
- While a speculative look at conditions 25 years hence is not objectionable, overlooking a cumulative scenario 10 years hence misses the most active concerns of the current residents of San Francisco and the region, hence the SEIR is defective as an information document.
- Absent inclusion of a shorter time-frame cumulative analysis, the long-term cumulative analysis deludes the public as to the nearer-term cumulative consequences of the Project.
- Given the rapid pace of development approvals including frequent planning and zoning variances, a 25 year forward cumulative analysis based on General Plan development quantifications is irrelevant.
- The transportation planning forecast tool used to prepare the travel forecasts for the 2040 cumulative analysis has a greater validation error (by a factor of 2) than the threshold of Project cumulative impact.
- The City is actively planning massive changes to the transportation network that would substantially alter (seemingly to the Project's detriment and to make it more impactful) transportation conditions in the immediate Project vicinity and that are as reasonably foreseeable as the plan development totals relied on in the 2040 analysis. The SEIR has failed to assess these transportation network changes.
- The SEIR uses an improper baseline for assessing cumulative transportation impacts. It assesses the Project's impacts relative to 2040 conditions that are assumed to exist without the Project. Per CEQA, it should evaluate the Project's impacts, in combination with those of other present and

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[LC-TR-7]  
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[LC-TR-8]

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reasonably foreseeable future projects on the existing environment. The essential difference is that what the SEIR has done is to compare a projection to a projection. CEQA requires comparison of a joint projection to a known (the existing condition). These are different things.

Response TR-2h begins with a laborious 4-page description of the City's ordinary practices in cumulative analysis and of the SF-CHAMP transportation model. The discussion fails to address any of the issues in the comments and, in particular, the SF-CHAMP model's calibration error being double the threshold of impacts that it is being relied upon to disclose.

Response TR-2h continues in an attempt to justify the distant year cumulative analysis as follows:

The 2040 cumulative horizon year is preferable to shorter period because the 25 - year horizon year more accurately accounts for land use changes and their associated transportation network changes, as well as other planned transportation improvements. Future growth occurs according to the vagaries of variable economic conditions, development trends, changing sponsor development priorities, and legal actions that delay or curtail proposed development, and therefore, short - term land use growth patterns cannot be accurately predicted in five - year increments. In particular, redevelopment projects such as those included in the 2040 growth forecasts (e.g., Mission Bay Plan, Candlestick Point - Hunters Point Shipyard Plan, redevelopment of Pier 70 and Seawall Lot 337), often take longer than anticipated to be completed. For example, the Mission Bay Plan was anticipated to be substantially built - out by 2015, which is the cumulative analysis year for transportation conditions in the Mission Bay FSEIR; however, construction of development is still underway and the UCSF Mission Bay campus is anticipated to be completed by 2019. Nearby, the Candlestick Point - Hunters Point Shipyard Phase II Development Plan identified completion of about 3,100 residential units by 2017; however, only about 240 of the 3,100 residential units are anticipated to be completed by the end of 2015. Construction of development part of the Pier 70 project is anticipated to continue through 2030. Thus, because larger multi - year development proposals would be built over a number of years, a future cumulative analysis year considers completion of buildout of these projects. Therefore, the cumulative impact analysis presented on SEIR pp. 5.2 - 208 - 5.2 - 232 (i.e., Impact C - TR - 1 though Impact C - TR - 10) adequately reflects the proposed project's impacts in combination with other past, present, and reasonably foreseeable future projects, and a different or additional cumulative analysis year is not warranted.

This response begs the question: If all this is true, why didn't the City use a 50, 60 or 100 year period for the cumulative analysis. The response, although seemingly filled with factual information, is nonsense relative to the issues.

Also, nothing in the response addresses the final bulleted point above or its elaboration in the original comments. CEQA requires evaluation of the

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[LC-TR-8]  
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cumulative condition, including the Project in combination with other foreseeable in comparison to the existing environment, not a comparison of two hypothetical future conditions.

### Section 13.11.6 – Response TR-5

This response relates to comments by BART (Comments A-BART-1, -4, -5, -7, -8, and -9) and ourselves (O-MBA10L4-19) supplying a station-level analysis of impacts on BART that was critically missing in the DSEIR. This station-level analysis provides completely new information, including Table 13.11-2, and conclusions that were previously missing. Consequently, the information should be available for review for the full 45 day review period in Recirculated Draft status under CEQA.

### Section 13.11.6 – Response TR-8

This response replies to our comment O-MBA10L4-28 concerning truck loading. The response indicates that new (un-numbered and untitled) figures showing truck turning templates for each loading are presented with the response. It is not evident if and where the said figures are actually provided. Hence, the response is inadequate.

### Section 13.11.6 – Response TR-9

This reply responds to our comment and those of others regarding access impacts to emergency vehicles attempting to reach UCSF hospitals located in the immediate vicinity of the Project. The response consists of a repetition and elaboration of the description of the ineffectual measures that prompted the comment rather than proposing clear mitigation to resolve the issues. We note that the critical traffic LOS deficiency at the intersection of Seventh, Sixteenth and Mississippi, which is on advertised emergency routes to the UCSF hospitals is unmitigated and that the SEIR analysis at this location has failed to consider the effects of train crossings of Sixteenth Street, which could cause traffic on Sixteenth to queue into the intersections of Sixteenth with Owens and Sixteenth with Fourth, which are intersections crucial to hospital access, both emergency and normal. The response is inadequate.

### Section 13.11.6 – Response TR-10

This response, which concerns construction impacts, is merely a reprise of the inadequate information and findings in the DSEIR that prompted our and several other comments. Of particular concern is the failure to address construction impacts associated with the reconstruction of the LRT station by the Project site on Third

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[LC-TR-13]

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[LC-TR-14]



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Street, a reconstruction which poses impacts for ordinary traffic on Third Street, emergency vehicle traffic on Third Street and for operations of the T Third Muni LRT line itself, which may impose social justice transportation impacts on the disadvantaged communities located further south in the T Third LRT corridor. These social justice impacts in specific have not been addressed.

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**Conclusion**

Due to all of the foregoing and other issues not yet addressed in these comments, the SEIR transportation and circulation section is inadequate and unsuited for certification.

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[LC-ERP-6]

Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.



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**EXHIBIT G**



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November 2, 2015

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**RE: Responses to RTC - Responses to Comments on the Draft Subsequent Environmental Impact Report-  
Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (SCN:2014112045)**

Mr. Lippe,

This letter summarizes my responses to the Response to Comments published on October 23, 2015. These are the professional opinions of Larry Wymer, licensed California Traffic Engineer (#1955).

**OPINION 1 - The DSEIR's Transportation and Circulation analysis does not adequately analyze the entirety of the study area impacted by the development**

**OPINION 2 - The DSEIR's Transportation and Circulation analysis does not analyze impacted study intersections and ramps in the SoMa and North Mission Bay areas, most notably those between Market Street and King Street**

I maintain the opinion that the study area should be expanded beyond those assumed within the SEIR to the SoMa area to incorporate relevant travel patterns which would exist for both the proposed project and the "the previous proposed arena site as described within the memorandum report titled "Travel and Parking Demand Estimates for the Proposed Event Center and Mixed Use Development at Piers 30-32 and Seawall Lot 330" which was dated August 9, 2013.

The RTC states that my comment:

*"...noted that because some of the basketball game attendees would be arriving from the San Francisco downtown and Financial District areas, they would be required to pass through SoMa to arrive at the project site, so that additional intersections in the SoMa area would have to be evaluated. Mode of travel and place of origin surveys of baseball game attendees conducted by the SF Giants, as well as available parking occupancy surveys, suggest that many of those game attendees that drove to work at their jobs in the Financial District and SoMa areas, tend to walk, ride transit, or take a taxi to AT&T Park, leaving their cars at their commuter parking locations in order to avoid the evening commute congestion that*

*typically occurs near I-80 and AT&T Park and having to re-park their cars at game-day rates. It is likely*

*that a similar condition would occur with the proposed project, with many of those working in downtown*

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*riding Muni or special event shuttles, and taking taxis or TNC vehicles2, such as Uber or Lyft to the event center, rather than driving and having to park again with limited space availability."*

The SEIR itself, as noted within Table 1 of my original comment letter (provided below) identified several corridors to/from the SoMa neighborhood with substantial trip percentages up to 32% of project traffic.

**Table 1  
Project Vehicle Trip Patterns to Major Parking Facilities  
North Mission Bay & South SoMa**

Figure	Page	Figure Title	Trip Assignment Along Roadway			
			Seventh St s/o Townsend St	Fourth St s/o Townsend St	King St e/o Third St	from WB I-80 to Fifth St
5.2-14A	5.2-95	Project Vehicle Trip Patterns to Major Parking Facilities - Inbound Weekday PM Peak Hour - No Event and Convention Event	18% / 22%	7% / 7%	5% / 11%	8% / 7%
5.2-14B	5.2-96	Project Vehicle Trip Patterns to Major Parking Facilities- Outbound Weekday PM Peak Hour - No Event and Convention Event	19% / 19%	7% / 12%	5% / 5%	8% / 8%
5.2-14C	5.2-97	Project Vehicle Trip Patterns to Major Parking Facilities - Inbound Saturday Evening Peak Hour - No Event	20%	8%	5%	9%
5.2-14D	5.2-98	Project Vehicle Trip Patterns to Major Parking Facilities - Outbound Saturday Evening Peak Hour - No Event	20%	8%	5%	7%
5.2-14E	5.2-99	Project Vehicle Trip Patterns to Major Parking Facilities - Inbound Weekday and Saturday Peak Hours - Basketball Game Without a SF Giants Evening Game	31% / 32%	13% / 13%	9% / 11%	29% / 30%
5.2-14F	5.2-100	Project Vehicle Trip Patterns to Major Parking Facilities - Outbound Weekday Late Evening Peak Hour - Basketball Game Without a SF Giants Evening Game	31%	13%	11%	20%

Source: "Event Center and Mixed Use Development at Mission Bay Blocks 29-32" DSEIR (June 5, 2015)

It is not reasonable to discount the trips clearly represented by these trip pattern percentages established within the SEIR as irrelevant or unworthy of analysis because they may not be entirely comprised of trips within personal vehicles of those traveling through the SoMa area from the financial district. Even if attendees utilize alternate transportation such as taxis, Uber or Lyft, they will still be new trips added to the roadways which will potentially significantly impact intersections north of the area studied.

The RTC also states:

*"The previously proposed center at Piers 30-32 was located at the intersection of The Embarcadero and*

*Bryant Street, with very different access patterns compared to the proposed project."*

While true, generally the same level of traffic will be generated by both alternatives, and trips originating from the financial district would still be required to travel through the SoMa area. While admittedly traveling along some different arterials through the SoMa district, the previous analysis considered intersections within SoMa whereas the SEIR does not.

Please feel free to give me a call if you have any questions.



O-MBA20L7

Sincerely,

Larry Wymer & Associates Traffic Engineering



Larry Wymer, CA T.E. 1955

O-MBA20L7

**EXHIBIT H**



O-MBA20L7



Technical Consultation, Data Analysis and  
Litigation Support for the Environment

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November 1, 2015

Thomas N. Lippe  
The Law Offices of Thomas N. Lippe  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Response to Comments on the Event Center and Mixed-Use Development  
Project at Mission Bay Blocks 29-32**

Dear Mr. Lippe:

We have reviewed the October 23, 2015 Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 Project ("Project") Final Subsequent Environmental Impact Report (FSEIR), which includes responses to comments ("Responses") we made on the June 2015 Draft Environmental Subsequent Impact Report (DSEIR). The Response fail to address the potential for transport of PCB-contaminated sediment to San Francisco Bay. The FSEIR should not be certified until best management practices that are specific to the prevention of PCB transport in stormwater are included as mitigation.

#### PCB-Specific BMPs Need to be Identified

Our comments noted the detection of PCB in soil at the Project site and the need to implement measures during soil-disturbing construction activities to prevent the transport of contamination to San Francisco Bay via stormwater. Response HYD-2 simply states that stormwater BMPs for PCBs must be consistent with best available technology economically achievable to meet requirements of the California Construction General Permit (p. 13.21-12). However, the Response does not specify BMPs that would meet this requirement. It is key that certification of the FSEIR is upheld until BMPs specific to preventing the spread of PCB contamination are identified.

The San Francisco Bay PCB total maximum daily loads (TMDL) established by the San Francisco Bay Regional Water Quality Control Board (Water Board) call for stormwater agencies, including the City and County of San Francisco, to achieve wasteload allocations by 2030 for PCBs. The allocations are implemented through NPDES permits issued to Bay Area municipalities which are based on the premise that BMPs will reduce PCBs in stormwater runoff to the maximum extent practicable.

Because PCBs have been detected in Project site soils, and because the Project is located so close to the Bay, we commented on the need to better assess PCBs in soil that would have resulted from past land use. The Response makes no provisions for conducting that assessment and instead relies solely on the

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[LC-HYD-3]

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idea that unidentified BMPs will suffice in reducing PCB-contaminated stormwater runoff. This is not good enough, especially with the understanding that PCB contamination in San Francisco Bay is a growing concern. In fact, San Jose recently sued Monsanto Corporation over liabilities for cleanup of PCB-contaminated stormwater that flows into the South Bay. A similar lawsuit was brought against Monsanto recently by the City of San Diego.<sup>1</sup>

As mitigation, the FSEIR should include the results of a full evaluation of PCB contamination in Project site soils. Soil sampling should be included as part of the evaluation to target areas where PCBs may have been released or spilled. The study should be conducted under the oversight of the San Francisco Bay Regional Water Quality Control Board to ensure investigation procedures are adequate in assessing PCB contamination at the Project site.

The FSEIR should also identify BMPs that will be effective in reducing PCB loading to the San Francisco Bay. The following measures have been identified in a "toolbox" by the San Francisco Estuary Institute as BMPs that would be effective in reducing loading of PCBs to the Bay.

- Source control BMPs:
  - Use of street sweeping to control sediment accumulation.
- Treatment control BMPs:
  - Use of infiltration trenches and basins to prevent or reduce stormwater runoff;
  - Use of swales, buffer strips, and bioretention to slow flow and increase sediment deposition; and
  - Using media filters, inlet inserts, hydrodynamic separators to trap sediment.

The FSEIR should reference this toolbox and should identify how these specific BMPs will be deployed and maintained. To ensure implementation of PCB-specific BMPs, the FSEIR should include language that would require the preparation of semi-annual reports to the City of San Francisco that would document the deployment and the maintenance of the BMPs.

Sincerely,

Matt Hagemann, P.G., C.Hg.

<sup>1</sup> [https://en.wikipedia.org/wiki/Monsanto\\_legal\\_cases](https://en.wikipedia.org/wiki/Monsanto_legal_cases)

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[LC-HYD-3]  
cont.



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**EXHIBIT I**



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O-MBA20L7

November 2, 2015

BSK Project Number E09066015

Soluri Meserve

Mr. Patrick Soluri,

1010 F Street, Suite 100

Sacramento, CA 95814

**Subject: Response to Comments Review**  
**Mission Bay Subsequent Environmental Impact Report**  
**San Francisco, California**

Dear Mr. Soluri,

At your request, we prepared observations for specified sections of the Response to Comments Review Mission Bay Subsequent Environmental Impact Report (DSEIR, "Response"). In preparing this document we have reviewed the responses for the following Water Quality sections HYD-3, HYD-4, as well as the associated UTIL-5, and UTIL-6.

In general, these new analyses and discussions do not appear to support the conclusions and findings, or provide adequate responses to the prior public comments in these Sections. Given the short time available for these comments, we would recommend requesting an extension to be able to more fully review the Lead Agency responses and their analyses from a technical perspective to be able to provide comments on more sections or expand on our comments.

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[LC-ERP-6]

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### HYD-3 Water Quality – Waste Water System Improvements

The Response acknowledges that building schedules for other projects such as UCSF – Phase 2 Medical Center may result in wastewater system tolerance exceedances.

The commenter writes that:

*“While the system can currently accommodate project-related wastewater flows as discussed in Impact UT-5, the capacity of the Mariposa Sanitary Pump Station could be exceeded as future projects are implemented, including UCSF’s Phase 2 Medical Center.”*

The respondent then acknowledges several assumptions outlined below.

- SFPUC will implement permanent pump station, etc. “as soon as feasible”
- Schedule for improvement is currently unknown
- Completion (of improvements) could occur aft the proposed project is operation

*“It is assumed that the SFPUC will implement the permanent pump station and associated force main and conveyance piping improvements at the Mariposa Pump Station as soon as feasible, but the schedule for these improvements is currently unknown and completion could occur after the proposed project is constructed and operational.”*

Again, the Response assumes SFPUC would make necessary operational and piping changes to accommodate additional flows in the interim in order to remain in compliance with RWQCB permits. The respondent further states that system approvals by the RWQCB would ensure that water quality of the Bay would be protected. This appears to be an unmitigated project impact.

*“In the event that additional future wastewater flows would exceed the pump station capacities before the needed wastewater system improvements could be completed, it is assumed that the SFPUC would make internal operational or piping changes to accommodate the additional flows in the interim in order to remain in compliance with RWQCB permit requirements. The interim system modifications would be subject to the approval of the RWQCB under the terms of the Bayside NPDES permit. Approval by the RWQCB would ensure that water quality of the Bay would be protected during the interim period.”*

The Response concludes that interim modifications are operation or internal and would therefore not result in any physical environmental effects.

*“Any interim system modifications are assumed to be operational or internal to the existing pump stations and therefore would not result in any physical environmental effects.”*

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[LC-HYD-4]

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The response defers water quality issues by saying this assessment was addressed in different sections of the DSEIR, however, acknowledged potential for wastewater systems capacity exceedance is by definition a water quality issue and a CEQA Utilities impact. The response even acknowledges this by presenting the SFPUC interim contingency plans outlining the wastewater re-routing system. If this plan proves insufficient as the result of system loading, etc., what happens to excess wastewater the system is not designed to handle? Either there will be upset conditions which will cause environmental impacts associated with sewage or there will be upgrades to the water treatment system(s) which have undisclosed environmental effects and no clear funding.

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[LC-HYD-4]  
cont.

### HYD-4 Changes in Effluent Quality

The respondent has simply laid out the statutory implications of failing to meet the terms of the NPDES permit. There is no evidence or guarantee that the terms will be met, and what steps would be needed to avoid the environmental impacts if they are not met.

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[LC-HYD-1]

### UTIL-6 Description of Interim Improvements

The response identifies that the interim improvements have already occurred and were not associated with the project, however further identifying that the proposed project would have needed the same improvements to accommodate the project. Yet, even more improvements will be required beyond the interim improvements:

*“The SFPUC has concluded that long-term permanent improvements to the Mariposa Pump Station will be required in order to handle anticipated, cumulative future flows. As noted in Impact C-UT-2 of the SEIR (p. 5.7-15), the SFPUC has not identified a timetable for completing the long term improvements to the Mariposa Pump Station, and has not developed specific plans or designs for construction of the proposed improvements.”*

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[LC-UTIL-2]

The project appears to attempt to have it both ways, the capacity is sufficient, after having built the interim improvements for the current project, yet close enough to the physical limits of these improvements that it is likely to need significant re-engineering in the near, but indeterminate future. It appears that the project is attempting to avoid the current impact analysis and not have to deal with its cumulative impacts.

### LIMITATIONS

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The conclusions presented in this Report are professional opinions based on the indicated data described in this report. This Report has been prepared in accordance with generally accepted methodologies and standards of professional practice.

No other warranties, either expressed or implied, are made as to the findings or conclusions included in the report. Conclusions and recommendations are intended only for the purpose, site location and project indicated.

Opinions presented in this Report apply to site conditions existing at the time of our study and those reasonably foreseeable. They cannot necessarily apply to site changes of which this office is not aware and has not evaluated. Changes in the conditions of the subject property may occur with time, because of natural processes or the work of humans, on the subject site or on adjacent properties.

Respectfully submitted,  
BSK Associates

  
Kurt M. Balasek PG, CHG  
Senior Hydrogeologist

  
Erik Ringelberg  
Ecological Services Group Manager

**BSK**

**O-MBA20L7**

**EXHIBIT J**



## O-MBA20L7



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November 2, 2015

BSK Project Number E0906601S

Soluri Meserve  
 Patrick Soluri  
 1010 F St, Ste. 100  
 Sacramento, CA 95814

**Subject: DRAFT Biological Resources Response to Comments Review  
 Mission Bay Subsequent Environmental Impact Report  
 San Francisco, California**

Dear Mr. Soluri:

Per your request, BSK Associates (BSK) reviewed publicly available documents associated with the Responses to Comments Draft Subsequent Environmental Impact Report ("Response" and DSEIR respectively) on the Golden State Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32. BSK reviewed these documents for potential project impacts related to biological resources (following the California Environmental Quality Act [CEQA] Appendix G). The Responses to Comments Draft SEIR, and its related supporting documents were reviewed, and replied to as needed for clarification or rebuttal. Additional scientific and technical resources prepared by others were also reviewed as needed.

#### SUMMARY

In our opinion, the Responses by the Office of Community Investment and Infrastructure failed in part or in total to respond to our original analyses in several areas. In general, the biological elements of the Response (and provided supporting analyses) lacked technical foundation, ignored or misconstrued our analytical points, or conflated technically correct elements in such a way as to lead to incorrect interpretations. Response BIO-1, General Approach to the Analysis, was not addressed in detail since we believe that no substantive changes have been made to the Biology section and our prior comments still apply. Additional comments that relate back to the BIO-1 Response are also found in the following comments.

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 [LC-ERP-6]

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#### ECOLOGICAL CONDITIONS RESPONSE REVIEW SECTION 13.19 BIOLOGICAL RESOURCES

##### Response BIO-2: Setting

The response states, "The commenters' observations and review of ecological conditions are noted and are not inconsistent with the setting information presented in the Initial Study." (p. 13.19-11)

This assertion attempts to state that our prior analysis of the Project setting was correct, but still somehow incorrect. There is an open water body feature in the middle of the site that meets *both* state and federal wetland multi-parameter criteria, yet according to the Response this doesn't need to be fully described in the environmental setting or identified in the Project Description. This error in failing to provide and maintain an accurate site setting and its description continues through the analysis, and also within the findings:

"Portions of the site are unutilized, including a depressed area (measuring approximately 320 feet by 280 feet) created by an excavation and backfill associated with a prior environmental cleanup on the site." (COMMISSION ON COMMUNITY INVESTMENT AND INFRASTRUCTURE RESOLUTION NO. 70-2015, Adopting Finding 2. Project Site, no page numbers.)

The "depressed area" is also filled with water, that water is maintained permanently, and had to have a trench cut to it in order to drain the surrounding self-maintained wetland features. (See BSK prior comments, and BSK Wetland Delineation.) Furthermore, buried within the Response, there is a simplified description of the setting that includes the pond that is much more accurate than the Project Description, yet even that description still fails to identify its wetland characteristics. The effect of this continuing error in defining the environmental setting as it relates to wetlands, listed species and the habitats, is that the project impacts on the environment for the wetland and water features and their associated habitats are not disclosed in a manner that are either accurately identified or the project mitigated in any substantive way.

For example, several thousand pages within the Response document it more clearly identifies that there is water in the "excavation" and it functions as habitat: "The aquatic habitat on the project site consists of an isolated ponded excavation less than an acre in size created by past soil remediation activities." and "Limited opportunities for colonization by either California red-legged frog or western pond turtle since soil remediation of the site was conducted in 2005 means that the likelihood for these species to be present are slim given the extent of development in the project vicinity and absence of nearby occupied habitat from which individuals could disperse to the project site." (p. 13.19-14)

The description of the environmental setting is inaccurate, it fails to identify that there are wetland features and aquatic habitat, and the public and certifiers would have no idea that these wetland features and habitat existed unless they poured through several thousand pages of contradictory descriptions.

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 [LC-BIO-2]



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### Response BIO-3: Special-Status Species and BIO-4: Sensitive Natural Communities

The Special-Status Response indicates that the provided multiple reconnaissance-level surveys are essentially equivalent to a protocol-level survey for attempting to identify that listed species do not occupy the site. This assertion is simply incorrect, as described by the very citations provided by BSK and the Response itself, and the provided analysis is replete with technical inconsistencies that again do not demonstrate the absence of listed species (WRA 2015<sup>1</sup>). This analysis is discussed in detail in the following section. The Sensitive Natural Communities response and its supporting analysis present a mischaracterization of the potential project impacts to listed species, the steelhead. No allegation was made by us that the interior of the site was suitable or subject to use by steelhead. Conversely, Critical Habitat which was not identified in the DSEIR, is now identified in the Response, but its ecological dimensions are mischaracterized.

The potential use of the site by other listed species was exclusive to as the California red-legged frog ([CRLF] *Rana draytonii*) and steelhead trout (*Oncorhynchus mykiss*). The report specifically does not assess the potential for use of the site by the western pond turtle (WPT). Therefore the Response mischaracterizes the study.

#### Site Surveys

The report does not provide the credentials and experience of the WRA wildlife biologist Claire Woolf, so it is impossible to ascertain the qualifications of this person. The report does not cite the use of the any survey methods or protocols, other than the site was 'traversed' on foot. For illustration, even the screening-level biological assessment of a site like this typically follows a variable intensity vehicular (to screen for sensitive bird species) and pedestrian survey to identify rare plants, to flush hidden and more secretive species and identify tracks, scat and burrows. In addition, even if the methods had been described, and protocols had been followed, the survey dates did not appropriately span the correct periods to assess for the (local) listed plant species.

Regardless, the efforts that have gone into this series of screening-levels surveys could have been protocol-level surveys completed by experts to definitively assess the site use by listed species. Protocol-level surveys are the only means by which a biological scientist can assert a negative species finding (absence). The protocol for floristic surveys, even if they had been completed, is clear: "a single field season does not constitute evidence(.)" (CDFG 2009; See Table 2 Special-Status Animal Species Reported or With Potential to Occur Near the Event Center and Mixed-Use Development Area at Mission Bay Blocks 29-32. P 13.19-15).

<sup>1</sup> [http://www.gsweventcenter.com/GSW\\_RTC\\_References/2015\\_1001\\_WRA.pdf](http://www.gsweventcenter.com/GSW_RTC_References/2015_1001_WRA.pdf)

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[LC-BIO-3]

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For example, USFWS 2005 Survey Guidance for the CRLF was simply not followed. In cases where protocol-level surveys are unavailable, focused species-specific surveys (not to be confused with a focused survey that *only* looks for CNDDB listed species) by experts are the appropriate methodological approach. There is no evidence that this approach was followed either.

The report is silent on any aquatic species use, and on observations (or the absence of observations) for the CRLF and WPT. For example, a qualified biologist completing a survey for CRLF would have identified that there were, or were not, eggs, egg masses, tadpoles, or frogs visible; and, similarly, provide specific identification of the presence or absence of tracks/drag marks at/near basking locations for the WPT. The report is entirely silent on the aquatic community, which should have included the presence or absence of small fish, macroinvertebrates (aquatic insects), various worm species, and other prey sources. These are just a few of the types of observations that should have been made and why a follow-on species specific survey is different from a reconnaissance-level survey, and, why this precise approach was requested in our original analysis and comments.

It appears that the analysis uses protocol-level survey citations as inferential indications that these methods were applied, where they have not. The Response to Comments reiterates in the footnotes our earlier list of protocols and focused survey citations (See BSK 2015), yet again fails to apply these to the project as requested: California Native Plant Society (CNPS), 2014. Inventory of Rare and Endangered Plants (online edition, v8-02). Sacramento, California. <http://www.cnps.org/cnps/rareplants/inventory/> (accessed September 10, 2014). CDFG, 2009. Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities. California Natural Resources Agency. November 24. USFWS, 2005. Revised Guidance on Site Assessments and Field Surveys for California Red-legged Frog.

For example, following the above cited protocol explains both why wetlands are special status natural communities and how to survey for special status plants [CDFG 2009]:

"Most types of wetlands and riparian communities are considered special status natural communities due to their limited distribution in California. These natural communities often contain special status plants such as those described above. These protocols may be used in conjunction with protocols formulated by other agencies, for example, those developed by the U.S. Army Corps of Engineers to delineate jurisdictional wetlands or by the U.S. Fish and Wildlife Service to survey for the presence of special status plants."

Furthermore, the survey protocol specifies:

"It is appropriate to conduct a botanical field survey when:

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[LC-BIO-3]  
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Natural (or *naturalized*) vegetation occurs on the site, and it is unknown if special status plant species or natural communities occur on the site, and the project has the potential for direct or indirect effects on vegetation; or(.)" (*Emphasis added for clarity.*)

Yet, there is no evidence in the record that this special-status plant botanical survey was ever completed. The provided screening level effort only apparently reviewed the California Natural Diversity Database (CNDDB). Despite the admonition by the protocols, and the CNDDB's user agreement, that the use of the CNDDB is neither a substitute for a careful technical approach or all inclusive. For example, per the cited protocol, "every plant taxon that occurs on site is identified to the taxonomic level necessary to determine rarity and listing status." This was not completed, or if it was it, was not provided. These comments are simply provided for brief illustration, as it does not appear that the biologist intended to assert that the survey was anything more than a reconnaissance, as noted in the title. In any case the provided study and the CEQA analysis are not sufficient to determine the absence of the identified listed species and of assessing the potential environmental impacts on listed species.

### Fisheries

For fisheries, the Response and the analyses mischaracterize the site and the designated Critical Habitat. The WRA report states that: "[the pond] is not conducive to the survival of steelhead due to elevated temperatures and low oxygen conditions evident by the dominance of filamentous algae in the depression. Steelhead would not be able to survive conditions such as those present in the depression." While those impressions are self-evident for steelhead trout, which are sensitive to environmental factors (and were never asserted by BSK to use the pond in the first place), the report makes no mention of the measurement of temperature or dissolved oxygen (DO) and neither of these can be visually estimated. Measurement of temperature and DO are easily and commonly accomplished in the field.

The Response, however, conflates these *ad hoc* field observations for trout with all other "aquatic species." The pond is not clearly suitable habitat for trout. However, there are aquatic plant species within the pond, and likely several other organisms, do use the ponds but those observations were not reported. Instead, the analysis in the Response makes a claim from literature: "Algae blooms occupy the entirety of ponded water within the depression. Such conditions can result in low dissolved oxygen concentration that is inhospitable and even lethal to aquatic organisms." (p. 13.19-14) There are many kinds of algae, some are toxic, but most are not. However, the field work does not identify which algae occupy the pond, the DO concentration or temperature.

### Critical Habitat

The Responses' second fisheries analysis goes on at length that aquatic Critical Habitat does not include the terrestrial portions of the site, and implies in one case and then contradicts itself later that the Bay bordering the site is also not steelhead Critical Habitat. The physical area described in the analysis as "excluded" is the surrounding watershed proper and not the Bay, which is unambiguously Critical

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[LC-BIO-3]  
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Habitat and specifically the habitat which could be harmed by the project, as described in our original analysis (ESA<sup>2</sup>). There are Bays within the steelhead Critical Habitat analysis that have been specifically excluded, such as Suisun, but the *provided* analysis is simply incorrect for *San Francisco Bay*. See the analysis' cited NMFS letter: "Critical habitat was designated for CCC steelhead on September 2, 2005 (70 FR 52488) and includes PCEs essential for the conservation of CCC steelhead. Critical habitat in estuaries is defined by the perimeter of the waterbody as displayed on standard 1:24,000 scale topographic maps or the elevation of extreme high water, whichever is greater." (p. 28) The Bay is suitable and occupied habitat for steelhead "Steelhead of this size can withstand higher salinities than smaller fish (McCormick 1994), and are more likely to occur for longer periods in tidally influenced estuaries, such as San Francisco Bay." (p. 25)

Indeed the analysis identifies a single selection from the life history and impact analysis of the NMFS letter, ignoring the numerous other passages that describe potential migratory exposure to the site, *while* singularly failing to mention that one of the reasons for listing critical habitat is because habitat quality in the Bay had been impacted by projects such as the proposed arena: "Habitat degradation in the action area is primarily due to altered and diminished freshwater inflow, shoreline development, shoreline stabilization, non-native invasive species, discharge and accumulation of contaminants," (pgs. 37-39 and 40 respectively.)

There are the very same impacts that we have pointed out related directly to both the site-specific risk of contaminants degrading Critical Habitat, as well as clear cumulative effects from the project:

"The San Mateo HU is located on the coast immediately south of the Golden Gate Bridge and includes several small creeks including San Gregorio and Pescadero Creeks." "The Team concluded that these occupied areas contained one or more PCEs (i.e., spawning, rearing, or migratory habitat) for this ESU and identified management activities that may affect the PCEs, including agriculture, agricultural and non-agricultural water withdrawals, urbanization, non-hydro dams, and road building and maintenance."

The issue of the Critical Habitat designation, within the Bay is clear:

"We now conclude that it is possible to delineate some estuarine areas in California (e.g., the San Francisco-San Pablo-Suisun Bay complex, Humboldt Bay, and Morro Bay) that are occupied and contain essential habitat features that may require special management considerations or protection. Such estuarine areas are crucial for juvenile salmonids, given their multiple functions as areas for rearing/feeding, freshwater-saltwater acclimation, and migration (Simenstad *et al.*, 1982; Marriott *et al.* 2002). In many areas, especially the San Francisco Bay estuary, these habitats are occupied by multiple

<sup>2</sup> [http://www.gsweventcenter.com/GSW\\_RTC\\_References/2012\\_1001\\_ESA.pdf](http://www.gsweventcenter.com/GSW_RTC_References/2012_1001_ESA.pdf)

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[LC-BIO-3]  
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ESUs. Accordingly, we are proposing to designate specific occupied estuarine areas as defined by a line connecting the furthest land points at the estuary mouth.”

The Response analysis cites a letter from the National Oceanographic Atmospheric Administration - National Marine Fisheries Service (NOAA-NMFS) in an attempt to diminish the perception of the possible exposure of the fish to the site, by stating that the population splits its migration mainly to the north of the site, when instead it provides a perfect illustration of the sort of trustee agency review that should be considered for the project’s impacts on the estuary’s environment, *a concurrence letter which the applicant has failed to secure*. (p. 13.19-21) This is the sort of biological analysis (Biological Assessment) and concurrence letter that the project *should get* to establish its potential impacts on a listed fish and its designated Critical Habitat. The Response fails to identify that the applicant or Lead Agency can simply request this concurrence from the federal fishery agencies and thus settle this issue.

The analysis attempts to imply that somehow the listed steelhead trout, and its habitat, is somehow not germane by the proposed site development. This is despite its identification by NOAA-NMFS as using for foraging and migration, these waters having been federally designated Critical Habitat, and the listing and designation as a result of its population decline by exposure to development and toxics.

This logical hand waving is a result of the project’s failure to even identify that it was adjacent to occupied critical habitat (see BSK’s prior comments.) Instead, the cited analysis by ESA, now attempts to conflate the spawning habitat of the designated *stream* critical habitat with the project site. (ESA 2015)

For example: “San Mateo Bayside HSA...was excluded from designated critical habitat for Central California Coastal steelhead DPS.” The analysis states that its conclusion “is further supported” by the finding that the San Mateo Bayside HSA was excluded, as if there was any relevance to that fact. We concur that the conditions of those blocks are not suitable for steelhead, they are unlikely to have occupied that site after Mission Bay was completely filled in, do not currently live on those blocks, and are unlikely to occupy the site until sea level rise/and or the predicted tsunami elevations are reached (see also BSK comments).

Nowhere has anyone attempted to state or otherwise imply that somehow the Mission Bay Blocks 29-32 are a migratory fish passage, are access to a spawning stream, or are an isolated lake capable of holding an steelhead Evolutionary Significant Unit. However, clearly, and without ambiguity, the site is adjacent to, and influences both directly and indirectly, designated, occupied, critical habitat. Also that, NOAA-NMFS has clearly identified that they migrate and occupy adjacent to the site in the San Francisco Bay/Estuary.

The analysis required to demonstrate the nature and the extent of the project’s impacts to the aquatic environment and on listed fish populations under CEQA (IV Biological Resources, a) and their critical habitat (IV Biological Resources, f), has not been completed. We understand that there remain significant impacts, and that the project should complete a Biological Assessment and submit this to the

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[LC-BIO-3]  
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NOAA-NMFS and the California Department of Fish and Wildlife as a part of its analysis to either demonstrate that it has no significant impacts, or that it has impacts and has provided suitable mitigation, or made a finding of significant and unavoidable impact.

### Sensitive Natural Communities

Similarly, the Response fails to adequately even define the Sensitive Natural Community at the site, completely ignoring the emergent wetland which was specifically identified by its own consultants (ESA 2014), as well as our prior analysis assessing Sensitive Natural Communities. Please note that there is limited Response provided for the whole list of BSK-identified communities, but focusing on just one:

“California identifies one of these habitat types as sensitive: *Bulboschoenus maritimus* (Salt marsh bulrush marshes) Alliance, status S3<sup>3</sup> (S3 = Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.)” (BSK initial comments on the DSEIR.)

The Response states that the site does not qualify due to a lack of density of *Bulboschoenus maritimus* by simply asserting that the density is not enough, without any supporting analysis and then goes on to say that regardless, there is plenty of that particular Sensitive Natural Community in the Bay.

The Response does finally acknowledge that ruderal sites can be habitat for rare plants, but its study fails to follow the rare plant protocol identified in its own citations. (See CNPS And CDFG.) In fact, no evidence of the qualifications of the surveyor and experience with the listed rare plants is provided. Furthermore, the Response provided a specific rebuttal to its own prior comments that ruderal and impacted sites might not have rare plants. (p. 13.19-19) Indeed rare plants can be found in many settings that are not the historic, pre-urbanization ideal condition, which the Response even specifically identifies for one of the species in question, Franciscan manzanita (*Arctostaphylos franciscana*). This species was at a previously unidentified location within freeway median. Yet, even this finding of a rare plant in an unlikely, highly disturbed location is apparently not a cautionary discovery and the Response sees no need for an appropriate survey. By refusing to complete the proper, definitive surveys, and by ignoring documented Sensitive Natural Communities, the project has impacts that remain unanalyzed and thus unmitigated.

### Response BIO-5: Wetlands

The basic premise of the Response is that there simply is no reversion, since at any time the site could have been developed, and the pit filled in (p. 13.19-31). Again, as stated in the initial BSK assessment of site conditions, that particular line of argument fails to acknowledge again that the site was not

<sup>3</sup> <https://www.dfg.ca.gov/biogeodata/vegcamp/pdfs/natcomlist.pdf>

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[LC-BIO-3]  
cont.

41  
[LC-BIO-1]

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consistent with the Order and the Revised Remedial Management Plan (RRMP) at the time it did not backfill the pit [[grammar makes this unclear]]. The Response ignores the BSK rebuttal that by the DSEIR's own logic, no site could ever revert since all that is required to demonstrate that it was not reverted would be an assertion of future development potential. All of the discussion regarding waters definitions has already been rebutted by BSK's detailed analysis. No substantive new information has been provided by the Response. The only new information in the Response is that they believe that state wetland laws only apply to federal wetlands and waters, which BSK showed previously it does not, and state wetland law is vastly more expansive and subject to different, state authorities. (p. 13.19-34)

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[LC-BIO-1]  
cont.

### Response BIO-6: Avian Impact

Foraging habitat losses are dismissed out of hand, despite various consultant's bird observations, and a specific assessment of available replacement habitat provided by BSK in its comments. (p. 13.19-30, 13.19-47 and 48) Then the Response analysis goes on to identify that replacement habitat is going to be made available by the project: "...while not included under the project purview, the adjacent, planned Bayfront Park will likely include landscaped and natural areas that offer similar or improved foraging and cover opportunities for local birds that would offset any perceived habitat loss associated with the proposed project development." It appears that despite its protestations, the Project is attempting to mitigate for its impacts without disclosing the impact, thresholds, and the details of the relevant Mitigation and Monitoring. (p. 13.19-38 and 13.19-47 and 48)

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[LC-BIO-4]

Incremental, cumulative impacts to wetlands, foraging, and nesting habitat are exactly why CEQA has a cumulatively considerable analysis in order to identify and mitigate these losses. Even then, where the project identifies it could directly kill birds through its construction impacts, it still gets that mitigation wrong for ground nesting birds.

### MITIGATION MONITORING & REPORTING PROGRAM

The DSEIR analysis, at a minimum, should have been fully developed to acknowledge the Clean Water Act (CWA) and Porter-Cologne (and other regulatory requirements), as well as the numerous state and federal wetland policies and regulations that apply to this site. It remains our opinion that the DSEIR continues to fail to identify and mitigate for the project impacts to waters and wetlands at the site; as well as the potential impacts to biological resources within and around the site through contact with hazardous waste. The following section goes into each of these issues in greater detail.

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[LC-HYD-5]

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[LC-BIO-1]

The sole mitigation for the loss of the water and wetlands, habitat and Biological Resources, is as follows: (Initial Study Section E13)

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[LC-BIO-4]

M-BI-4a: Preconstruction Surveys for Nesting Birds To the extent practicable, vegetation removal and grading of the site in advance of new site construction shall be performed between September 1 and January 31 in order to avoid breeding and nesting season for birds. If these

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activities cannot be performed during this period, a preconstruction survey of *onsite vegetation* for nesting birds shall be conducted by a qualified biologist. (Emphasis added.)

Onsite vegetation is an inappropriate and overly narrow distinction. Birds nest on the ground as well as in shrubs and grasses, including species such as the previously identified juvenile killdeer (*Charadrius vociferous*) and Canada geese (*Branta canadensis*) which were observed at the site. Even the prior Response Section identifies that all birds nesting at the site should be protected from construction impacts: "Potential impacts to urban birds protected under the Migratory Bird Treaty Act and nesting in the excavations or vegetation within the entirety of project site are mitigated by implementation of Mitigation Measure M-BI-4a (Preconstruction Surveys for Nesting Birds), as discussed in the Initial Study for non-special-status wildlife. (See Initial Study, pp. 81-83.)" (p. 13.19-37) Although it also fails to identify the unvegetated, non-excavated areas, which comprise the majority of the site.

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[LC-BIO-4]  
cont.

Finally, there needs to be a full protocol-level survey for the listed plants, including San Francisco manzanita (*Arctostaphylos franciscana*) during the appropriate season, to make an identification of the site's plants by an qualified botanist with field experience in the identification of that and other local listed species. If special-status species are identified at the site a Worker Environmental Awareness Plan should be put into effect.

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[LC-BIO-3]

### Stormwater Mitigation

The biological effects of stormwater on the environment are not properly analyzed. The offered responses to comments regarding stormwater mitigation are particularly ironic given that the site has demonstrably failed to maintain its Best Management Practices (BMPs) and has visible waste material literally clogging its stormwater drains. (See BSK comments.) The concept that simply stating that a BMP will work, without analyzing the nature of the impacts, and without maintaining those BMPs calls into question every part of the DSEIR that relates to sediment, toxins and wildlife exposures. For illustration, the BMPs at the site currently are not properly maintained and have been filled in or partly filled in with sediment, or breached completely. However, even if these sediment BMPs had been installed correctly and maintained, they do nothing for dissolved-fraction toxic chemicals. The project fails to implement the sediment BMPs correctly and does not even offer readily implementable BMPs for dissolved-fraction chemicals found at the site.<sup>4, 5, 6, 7</sup> Yet, the Response states unequivocally, "Any potential effects associated with contaminated stormwater runoff into San Francisco Bay would be avoided during construction through compliance with the Construction General Permit and implementation of a Stormwater Pollution Prevention Plan (SWPPP) as described in the Section 13.21, Response HYD-2." (p.

47  
[LC-HYD-3]

<sup>4</sup> <http://water.epa.gov/polwaste/npdes/swbmp/index.cfm>

<sup>5</sup> [http://water.epa.gov/scitech/wastetech/guide/stormwater/upload/2006\\_10\\_31\\_guide\\_stormwater\\_usw\\_b.pdf](http://water.epa.gov/scitech/wastetech/guide/stormwater/upload/2006_10_31_guide_stormwater_usw_b.pdf)

<sup>6</sup> [http://water.epa.gov/scitech/wastetech/upload/2002\\_06\\_28\\_mtb\\_weidmnpn.pdf](http://water.epa.gov/scitech/wastetech/upload/2002_06_28_mtb_weidmnpn.pdf)

<sup>7</sup> [http://water.epa.gov/polwaste/npdes/stormwater/upload/nrc\\_stormwaterreport.pdf](http://water.epa.gov/polwaste/npdes/stormwater/upload/nrc_stormwaterreport.pdf)

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13.19-22) The SWPPP is solely intended to manage ordinary construction sediment and has no specific intent to manage hazardous waste, and in any case does nothing for dissolved hazardous chemicals.

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[LC-HYD-3]  
cont.

**LIMITATIONS**

Our review was limited to the above-described aspects as they are identified in the project environmental documents provided or otherwise made available for review. Additional information related to the project may be available through other sources, but were not reviewed for the purposes of this analysis.

The observations, assessment and recommendations submitted in this report are based upon the data obtained from listed reports prepared by others, limited field investigation, and site observations. The report does not reflect variations which may occur beyond the assessed area. BSK's services were performed in a manner consistent with the level of care and skill ordinarily exercised by other professionals practicing in the same locale and under similar circumstances at the time the work is performed. No warranty, either expressed or implied, is included. The findings of the field observation may have a potential for negative impact(s) on the value or suitability of the site for some purposes. BSK cannot assume liability for any such negative impact(s). Permitting requirements or permit interpretations may change over time. The findings of this report are valid as of the present. However, changes in the conditions of the site can occur with the passage of time, whether caused by natural processes or the human-induced changes on this property or adjacent properties. In addition, changes in applicable or appropriate standards or practices may occur, whether they result from legislation, governmental policy, or the broadening of knowledge.

We appreciate the opportunity to be of service to Soluri Meserve and trust that this correspondence provides you with the information necessary at this time. Please contact us with any questions regarding the review comments presented this letter.

Respectfully submitted,  
BSK Associates



Erik Ringelberg  
Senior Scientist  
Ecological Services Group Manager

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**EXHIBIT K**





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### Technical Memorandum

**Subject:** Proposed Warrior Arena Wetland Features  
**Date:** July 16, 2015  
**To:** Soluri Meserve  
1010 F St, Ste. 100  
Sacramento, CA 95814  
**From:** BSK Associates  
BSK Associates  
3140 Gold Camp Drive, #160  
Rancho Cordova, CA 95670  
**Re:** BSK Project Number E0906601S

The purpose of this memorandum is to provide description and an assessment of the site's waters and wetland conditions at Blocks 29-32, Mission Bay Project in San Francisco, California (Vicinity Map Figure 1).

BSK Associates (BSK) provided a screening-level site visit of the proposed project area to assess its condition from the public right-of-way, shown on Figure 2. A combination variable intensity, pedestrian and vehicular survey was made of the site perimeter and of areas of the project site clearly visible from the public right-of-way on June 30, 2015. The approach, assumptions, significance evaluation, and results are summarized below.

#### SITE OBSERVATIONS

The proposed project footprint consists of two large paved areas (Southwest parking lot approximately 79,910 sq.ft./1.83 ac. and Northeast parking lot approximately 91,776 sq.ft./2.11 ac.)<sup>1</sup> currently being used as paid parking lots; an area of soil stockpiles (31,066 sq.ft./0.71 ac) on the eastern edge of the property (Terry A. Francois Boulevard); and an adjoining large open field, open water (22,115 sq.ft./0.51 ac) and wetland swale complex, (904 sq.ft./0.02 ac.) (closest to the Southwest parking lot) shown on Figure 2. A series of photographs were taken of the site and the adjoining areas (Attached Photo Plates).

At the time of observation, the open water area encompassed the majority of the water feature, with a patchy, but substantial fringe of palustrine emergent (predominately alkali bulrush [*Bolboschoenus maritimus*]) and riparian plants (willows [*Salix sp.*]). The visible forb layer was

<sup>1</sup>2015 Google Earth

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typical of this sort of site. The plants were concentrated on the two narrow ends of the water feature. The narrower channel and the seasonal wetlands apparent from the aerial photographs (Figures 2a-i) were not clearly visible from the site perimeter fence(s).

Numerous native birds were observed within, and in some cases flying to and from the water body. Several Canada geese (*Branta canadensis*) were seen, including what appear to be adult plumage juveniles; three killdeer (*Charadrius vociferous*), including two juveniles; a female mallard and a juvenile (*Anas platyrhynchos*); several crows (*Corvus brachyrhynchos*); two non-native Eurasian collared-doves (*Streptopelia decaocto*); and numerous non-native rock doves/pigeon (*Columba livia*). The site has significant use for nesting and foraging by these bird species.

#### WATERS AND WETLAND FEATURE HISTORY

The site is within the footprint of the historic Mission Bay, which has been filled in over time (ESA 2014; Pg. 1). The original Bay muds are still found below the site, as evidenced by the site soil borings (LTR 2015; Pg. 13 and Figures A-2 and A-3). The excavation intercepted local shallow groundwater and is evidently maintained by that natural source (LTR 2015; Pg. 14). The site also has seasonal wetland features which appear to be dominated by stormwater. It is not clear that these seasonal features would not be maintained for far longer in the spring, but they have been captured through an excavated trench apparently intended to drain them to the open water body (ESA 2014; Pg. 2). The site "remedial" activities thus captured the local water table and allowed for the expression of open water and wetland features (ESA 2014; Pg. 2). The ESA analysis goes on to specifically identify that the: "...deeper excavation and surrounding shallow depressions within the proposed project site are features that exhibit hydrology and vegetation characteristics of wetlands. Hydric soil is presumed present due to the year-round inundation and presence of obligate wetland plants." (ESA 2014; Pg. 3)

For additional purposes of comparison, BSK has provided a time-series of aerial photos of the site using Google Earth historic imagery for the period spanning 1938 through 2013 (Figures 2a, through 2i). The imagery provides a clear indication of vegetation through its distinct shape, and indications of both reflectance and morphology for water features. The time series does not provide information for the missing intervals, and so the relative changes of feature geometry (relative position and size) over time are used to confirm persistence of those features.

July 1938 - The site has numerous apparent industrial uses, ranging from warehousing and tank storage, to railroads (Figure 2i). There is a ruderal area on the site on the northwestern corner.

July 1946 - These conditions appear similar to 1938 (Figure 2h).

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[LC-BIO-1]  
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June 21, 1987 - The site has similar activities, but with new buildings, less rail facilities and what appears to be a small concrete batch plant and material storage area on the western edge of the site (Figure 2g).

September 25, 2001 - These details are much clearer, with the inclusion of a large soil stockpile on the eastern edge of the site (Figure 2f). On October 5, 2005, the site has had most of the buildings removed and several large stockpiles, as well as a large parking area (Figure 2e). The apparent interception of the local water table in one of the excavated areas is visible (See WRA 2014; ESA 2014; and LTR 2015).

February 2007 - The large excavation and a single large water feature are visible, by March 2007, that feature was approximately 87,000 sq.ft./2 ac. (Figure 2d).

May 6, 2009 - There are two large parking lots visible and the main excavation has been filled through the middle such that it now has two features, and numerous small seasonal water features (Figure 2c). On April 3, 2011, the apparent open water and seasonal wetland features have naturalized with several areas of vegetation growing in around them (Figure 2b).

January 1, 2013 - The water features are again fully flooded and consist of two large wetted areas (Figure 2a). According to the aerial photograph, the total waters and wetland area was approximately 31,000 sq.ft./0.71 ac. on October 24, 2014. The available Google Earth historic imagery supports the history of water body formation and maintenance over time.

### WATERS AND WETLANDS

The Clean Water Act (CWA) is the primary federal law in the United States governing water pollution and regulating water quality standards for surface waters. The basis of the CWA was enacted in 1948 (the Federal Water Pollution Control Act), but the Act was significantly reorganized and expanded in 1972. Both the US Army Corps of Engineers (USACE) and the US Environmental Protection Agency (USEPA) administer elements of these laws, but typically the USACE provides the waters and wetlands delineation protocols, administers the permitting program for wetland-impacting projects, and the USEPA provides oversight. Federal waters and wetland policy differs in several key regards from California, although there is much similarity. California also has a role in the CWA wetland permitting process through the 401 Certification process.

The term "wetlands" from a 404 perspective generally means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands typically include swamps, marshes, bogs, and similar areas. These are typically identified using a three-part test, examining the presence of water, wetland

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(hydric) soil, and wetland dependent (hydrophytic) vegetation, following specific guidance(s). The federal CWA section 404(b)(1) Guidelines list both wetlands and mud flats as types of "special aquatic sites".

In California, the State Water Resources Control Board (State Water Board) is responsible for establishing policy on State waters and wetlands. The policy is implemented through regulations established by the State Water Board and nine Regional Water Quality Control Boards (in the site's case the San Francisco Regional Water Quality Control Board). The Boards also administer the CWA 401 Certification, which in some cases covers only portions of wetlands, and the Water discharge Requirements (WDR) for the non-Federal portions, if present. There are additional specific statutes and orders that also define or promote policy objectives regarding California's wetlands, such as EO-W-59-93<sup>2</sup> and California Department of Fish and Game Streambed Alteration Agreement, among others. In addition, Porter-Cologne Water Quality Control Act (Cal. Water Code, Div. 7) can apply to coastal wetland projects (§ 13142.5), in particular to unabated chemical discharges from construction or chemical waste stockpiles.

A wetland under California's regulations contains the following features:

An area that is covered by shallow water or where the surface soil is saturated, either year-round or during periods of the year; Where that water coverage has caused a lack of oxygen in the surface soil; and, has either no vegetation or plants of a type that have adapted to shallow water or saturated soil. Some examples are fresh water marshes, bogs, riparian areas, vernal pools, coastal mud flats and salt marshes.

In addition, wetlands according to the CA Coastal Commission are defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats (14 CCR 13577(b)). Furthermore, given the special salinity conditions associated with wetlands within the coastal zone, they also means lands which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens (Cal. Pub. Res. Code § 30121).

In this case, there are both a permanent water body and a seasonal feature (possibly a small complex) with wetland characteristics by the admission of the experts who prepared the

<sup>2</sup>[http://www.waterboards.ca.gov/water\\_issues/programs/cwa401/docs/wrapp2008/executive\\_order\\_w5\\_9\\_93.pdf](http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/wrapp2008/executive_order_w5_9_93.pdf)

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environmental documentation for the project. These characteristics clearly meet the definitions contained in the various regulations, including 14 CCR 13577(b), Cal. Pub. Res. Code § 30121. The open water feature and its hydrophytic vegetation was verified in the field, and through the use of aerial photos, showing their presence over time, both by season and by year.

### Federal Jurisdiction

Wetlands created by human actions fall under a couple of discrete classes under Federal jurisdiction. Most typically these are agricultural features that are caused by the movement of water from one location to another, such as a dam providing water to a canal constructed in uplands. In this case however, the site was originally a tidal mudflat or estuary wetland which has since reverted back to a wetland (ESA 2014). In addition, even if it was not originally a water or wetland, it currently meets those adjacency, and direct hydrologic connectivity requirements under the Final Clean Water Rule (2015; 33 CFR Part 328 and 40 CFR Parts 110, 112, 116, 117, 122, 230, 232, 300, 302, and 401); and, even manmade wetlands and water bodies have restrictions on discharges under 33 CFR 323.4(b).

There are Federal exemptions for specific construction associated activities. These exemptions (33 CFR 323.4 - Discharges not requiring permits) are invalidated, however: "If any discharge of dredged or fill material resulting from the activities listed in paragraphs (a) (1) through (6) of this section contains any toxic pollutant listed under section 307 of the CWA such discharge shall be subject to any applicable toxic effluent standard or prohibition, and shall require a section 404 permit." (33 CFR 323.4(b)).

The site's water and soils include several chemicals identified under CWA section 307 as toxic pollutants (BBL 2006; LTR 2015).<sup>3</sup> Those chemicals include the following 12 Priority Pollutants found in the in the LTR Phase II (LTR 2015; Table 4 and Table 5):

1. Benzene
2. Naphthalene
3. Cyanide
4. Antimony
5. Arsenic
6. Chromium
7. Copper
8. Lead
9. Mercury
10. Nickel
11. Selenium
12. Zinc

<sup>3</sup> <http://water.epa.gov/scitech/methods/cwa/pollutants-background.cfm>

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Therefore, the site is *not exempted* under 33 CFR 323.4 because it contains 12 of the chemicals identified as priority pollutants under section 307.

The site's consultant, WRA, in a separate analysis, has attempted to claim exemption from the CWA under yet a different test (without identifying that any exemption is *invalidated* by the section 307 test described above (WRA 2014; Pg. 2)). WRA states that: "1986 (51 Fed. Reg. 41206) (e) Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States."

This explanation, instead of demonstrating how the site may be exempted as an incidental construction feature, provides documentation that clearly shows how that feature has been abandoned. Therefore the exemption also does not apply on that basis. The site owner's clear and continuing failure to backfill the feature and its abandonment for the past decade, despite being under Order No. R2-2005-0028 and its RRMP, is on its face abandonment and its clear reversion to the definition of waters, wetlands and/or other special aquatic site.

Indeed, there is no merit to the further argument made by WRA (Pg. 4) that: "As described in the RWQCB Order No. R2-2005-0028, the Project Area was to be excavated and backfilled in preparation for future development as part of the overall Mission Bay redevelopment plan." The site was not backfilled. It should be noted by WRA's argument there could never be a case for reversion under the CWA, because any naturalized feature would simply 'be ready' for some postulated future backfilling. The provided analysis fails to show: 1. How the feature has not reverted and 2. How the exemption override under 33 CFR 323.4 does not apply due to the presence of section 307 toxic chemicals. Regardless, WRA is simply silent on the open water and wetland features in context of the State water and wetland policy and applicable regulations.

### California Jurisdiction

California does not have the same exemptions in its waters and wetland framework as exist under the CWA. California derives its authority from different sources (Porter-Cologne Water Quality Control Act) for its policies, and includes all man-made features under its jurisdiction. Therefore the site's water features, regardless of origin, appear to be regulated and protected waters of the State and wetlands.

### SITE ABANDONMENT AND HAZARDOUS CHEMICALS

The site "remedial" activities captured the local water table and allowed for the expression of wetland characteristics and the site has naturalized over time (ESA 2014; Pg. 2). These activities have resulted in the creation of stockpiles of material that in some cases: "...contains

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contaminants that exceed hazardous waste threshold concentrations and will require special handling and disposal." adjacent or near to these wetland features (TWR 2015; Pg 1). These activities took place over several years culminating in a Phase II remedial action that left the excavated area open and abandoned in 2005 (LTR 2015; Pg. 6). The Revised Risk Management Plan (RRMP, BBS; Pg. 2-3 and 2-3) infers that the excavation was backfilled, however, it was not.

The RRMP further identifies that: "1. Because North Terminal, Parcel X4, OAS and 16th Street East OUs are currently under development, interim risk management measures (IRMMs) designed for undeveloped parcels are not relevant to the protection of human health on those OUs. If development ceases or areas are created with uncovered native soils, IRMMs may again be necessary." (BBS 2006; Table 1) The development of the site still has not occurred, and there is no evidence that the IRMMs have been applied.

The site's open water and wetland features are thus a direct result from the abandonment of a site cleanup allowed to revert back to a natural state for approximately a decade. Not only did natural features evolve in response to this abandonment, but the very abandonment created conditions that may have exposed wildlife to a variety of hazardous chemicals (LTR 2015).

### CONCLUSIONS

The site has active wildlife use, open water and various forms of wetland features according to our observations (as well as those observations made by others), and appears to be subject to both State and Federal regulations associated with the protection of these species, their habitat, and these features (ESA 2014). These regulations have several requirements that apply to the protection of wildlife and waters, including but not limited to, the Migratory Bird Treaty Act, the federal Clean Water Act, Section 404, and the State's various Clean Water Act responsibilities, and its own Porter-Cologne requirements. It is our opinion that the appropriate course of action for this site include:

1. The site owner immediately ceases the placement of any and all fill material, including hazardous materials, into any of the water and wetland features, until those wetlands have been delineated using the appropriate protocols; the appropriate State and Federal Permits have been secured; and, the appropriate compensatory mitigation has been implemented.
2. The site owner immediately ceases the uncontrolled runoff from the staged covered, and any hazardous material piles, into these features.
3. The protection of wildlife that occupy the site be established through the implementation of a Worker Environmental Awareness Plan, and that Plan includes protection breeding birds and their offspring.

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### REFERENCES

BBL Environmental Associates [BBL], 2006. Revised Risk Management Plan, Former Petroleum Terminals and Related Pipelines Located at Pier 64 and the Vicinity, City and County of San Francisco, California. (August, 2006)

ESA Associates [ESA], 2014. Habitat Value Assessment at the Mission Bay Blocks 29-32 Project Site. (11/6/14)

Langan Treadwell Rollo [LTR], 2015. Phase II Environmental Site Assessment, Golden State Warriors Arena, Blocks 29-32, Mission Bay, San Francisco, California. (June, 2015)

WRA Consultants [WRA], 2014. Construction Related Depressions at Golden State Warriors Mission Bay Site. (10/1/14)

### LIMITATIONS

The observations, assessment and recommendations submitted in this report are based upon the data obtained from existing reports prepared by others, limited field investigation, and site observations. The report does not reflect variations which may occur beyond the assessed area. BSK's services were performed in a manner consistent with the level of care and skill ordinarily exercised by other professionals practicing in the same locale and under similar circumstances at the time the work is performed. No warranty, either expressed or implied, is included. The findings of the field observation may have a potential for negative impact(s) on the value or suitability of the site for some purposes. BSK cannot assume liability for any such negative impact(s). Permitting requirements or permit interpretations may change over time. The findings of this report are valid as of the present. However, changes in the conditions of the site can occur with the passage of time, whether caused by natural processes or the human-induced changes on this property or adjacent properties. In addition, changes in applicable or appropriate standards or practices may occur, whether they result from legislation, governmental policy, or the broadening of knowledge.

Respectfully submitted,  
BSK Associates

Erik Ringelberg  
Natural Resources and Land Planning  
Group Manager

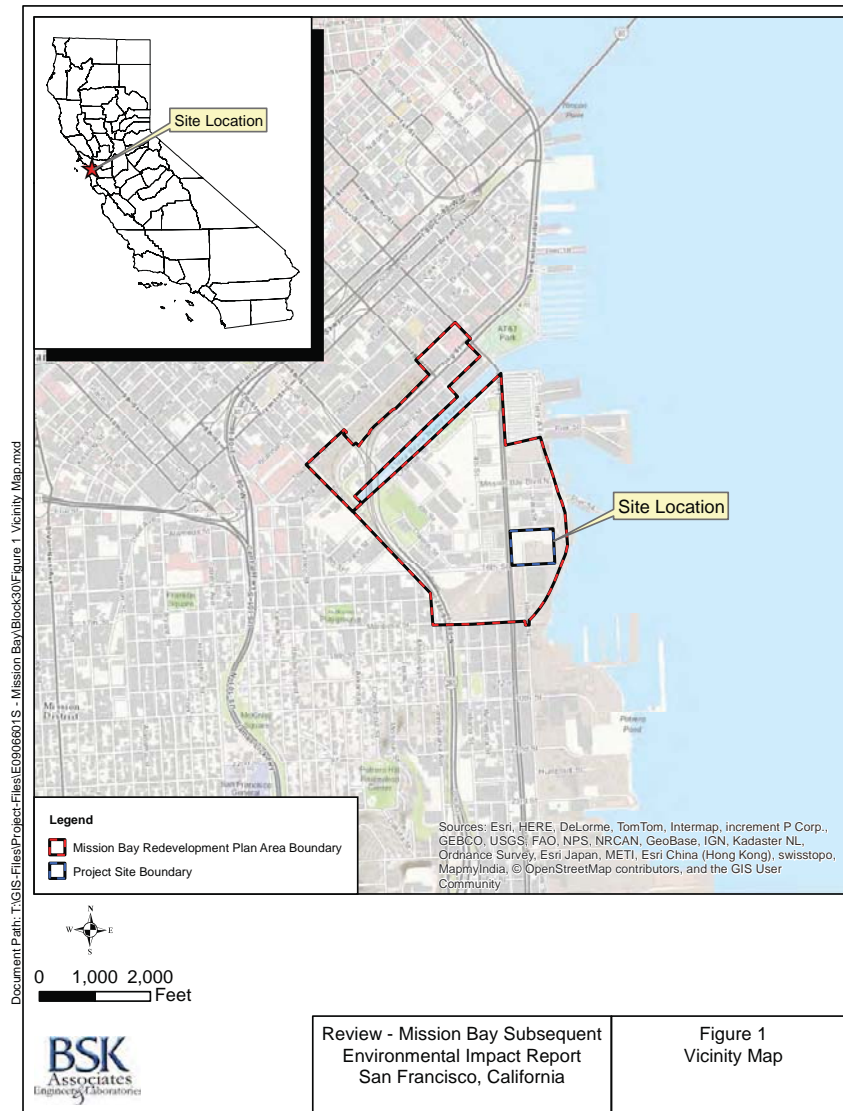
Kevin Grove  
Staff Scientist

Attachment: Figures

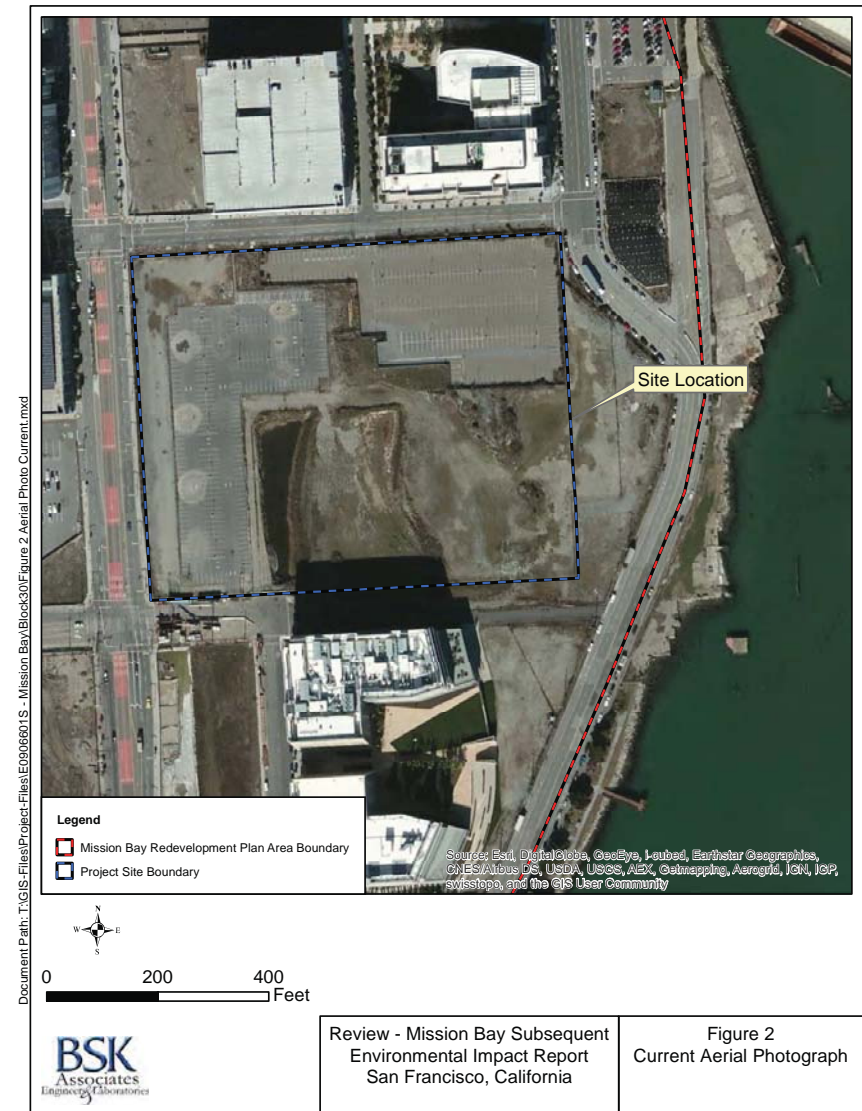
BSK



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**Legend**  
 ■ Mission Bay Redevelopment Plan Area Boundary  
 ■ Project Site Boundary

Source: Google Earth Historical Images, January 1, 2013



0 150 300  
 Feet

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Figure 2a  
 2013 Aerial Photograph

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**Legend**  
 ■ Mission Bay Redevelopment Plan Area Boundary  
 ■ Project Site Boundary

Source: Google Earth Historical Images, April 3, 2011



0 150 300  
 Feet

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Figure 2b  
 2011 Aerial Photograph



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**Legend**  
  Mission Bay Redevelopment Plan Area Boundary  
  Project Site Boundary

Source: Google Earth Historical Images, May 6, 2009



0 150 300  
Feet

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Figure 2c  
2009 Aerial Photograph

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**Legend**  
  Mission Bay Redevelopment Plan Area Boundary  
  Project Site Boundary

Source: Google Earth Historical Images, February 2007



0 150 300  
Feet

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Figure 2e  
2007 Aerial Photograph



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**Legend**  
 Mission Bay Redevelopment Plan Area Boundary  
 Project Site Boundary

Source: Google Earth Historical Images, October 5, 2005



0 150 300  
Feet



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Figure 2e  
2005 Aerial Photograph

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**Legend**  
 Mission Bay Redevelopment Plan Area Boundary  
 Project Site Boundary

Source: Google Earth Historical Images, September 25, 2001



0 150 300  
Feet



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Figure 2f  
2001 Aerial Photograph



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**Legend**  
  Mission Bay Redevelopment Plan Area Boundary  
  Project Site Boundary

Source: Google Earth Historical Images, June 21, 1987



0 150 300  
Feet

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Figure 2g  
1987 Aerial Photograph

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Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, JEP, swisstopo, and the GIS User Community

**Legend**  
  Mission Bay Redevelopment Plan Area Boundary  
  Project Site Boundary

Source: Google Earth Historical Images, July, 1946



0 150 300  
Feet

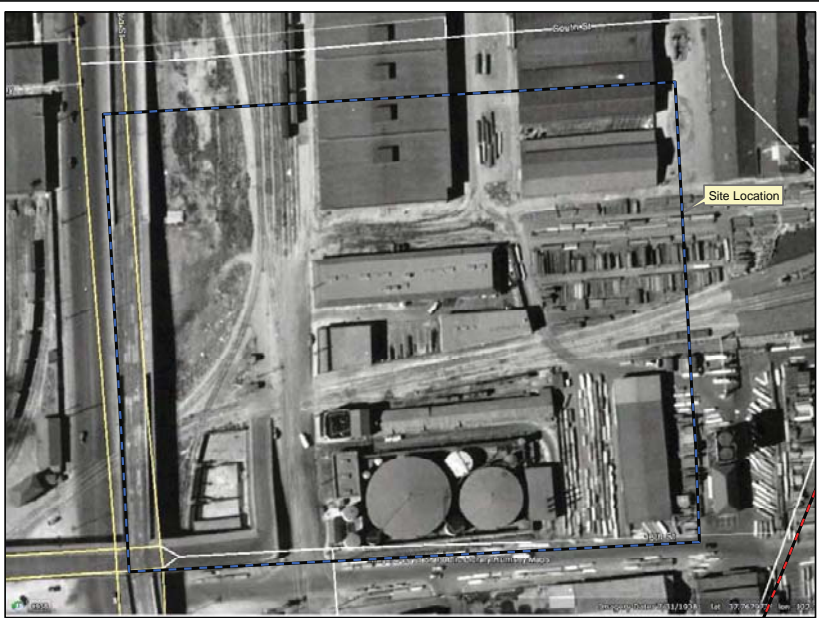
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Figure 2h  
1946 Aerial Photograph



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**Legend**

- Mission Bay Redevelopment Plan Area Boundary
- Project Site Boundary



Source: Google Earth Historical Images, July, 1938



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Figure 2i  
1938 Aerial Photograph

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EXHIBIT L



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**DRAFT WATERS AND WETLAND DELINEATION REPORT  
PROPOSED MISSION BAY DEVELOPMENT BLOCKS 29-32  
SAN FRANCISCO, CALIFORNIA**

BSK PROJECT E0906601S

PREPARED FOR:

SOLURI-MESERVE  
1010 F STREET, SUITE 100,  
SACRAMENTO, CA 95814

OCTOBER 29, 2015

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ENVIRONMENTAL, GEOTECHNICAL, CONSTRUCTION SERVICES AND ANALYTICAL TESTING

O-MBA20L7

**DRAFT WATERS AND WETLAND DELINEATION REPORT  
PROPOSED MISSION BAY DEVELOPMENT PROJECT BLOCKS 29-32  
SAN FRANCISCO, CALIFORNIA**


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BSK Project E0906601S

October 29, 2015

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ATTACHMENT A - RESUMES



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1. INTRODUCTION

BSK Associates (BSK) completed a waters assessment and wetland delineation under the direction of Soluri-Meserve for the proposed Mission Bay development project site (Blocks 29-32). The site is owned by the Golden State Warriors after a recent sale from Salesforce.Com, Inc. The purpose of the delineation was to identify potential wetland features within the project footprint. BSK is requesting a Preliminary Jurisdictional Determination (JD) for the purposes of verification of “waters” and the wetland features at this proposed project site. The purpose of this report is to provide supporting description and an assessment of the site’s waters and wetland conditions at Blocks 29-32, Mission Bay Project in San Francisco, California (Vicinity Map Figure 1). The approach, assumptions, significance evaluation, and results are detailed below.

2. GENERAL SITE DESCRIPTION

The approximately 12-acre proposed project site (hereinafter the “site”) is located in San Francisco, CA on bounded by 3rd, 16th and South Streets, and Terry Francois Blvd (to the east). This site has also been identified as parcel lots 29-32 within the greater Mission Bay South Development (Site Map Figure 2). The site vicinity and location figures are provided at the end of this report. The “Area of Potential Effect” (APE) is within the central and southwestern portion of the site. The site is bounded by urban development on all four sides, including parking lots on two sides (west and north). The eastern and northeastern sides of the site have staged piles of previously identified potentially hazardous materials (BBL 2006 and LTR 2015).

The terrain is nearly flat, although the western third of the site slopes steeply towards the pond area. The majority of the site is disturbed, with several large areas of barren soil, intermixed with low density non-native annual ruderal and grassland habitats. Within that disturbed area, there are wetland features which are further described in this study.

The APE contains features with wetland characteristics, including a series of swales (approximately 904 sq.ft./0.02 acre) that radiate from the east to the west into to an approximately 22,115 sq.ft./0.51 acre open water pond feature. This pond feature is located approximately 702 feet from the open water of the Bay, with the swales located between the pond and the Bay.

2.1 Waters and Wetland Feature History

The site is within the footprint of the historic Mission Bay, which has been filled in over time (ESA 2014; Pg. 1). The original Bay muds are still found below the site, as evidenced by the site soil borings (LTR 2015; Pg. 13 and Figures A-2 and A-3). The pond intercepts local shallow groundwater and is evidently maintained by that natural source (LTR 2015; Pg. 14). The site also has seasonal wetland features which appear to be dominated by stormwater influences. It is not clear that these seasonal features would not

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be maintained for far longer in the spring, but they have been captured through an excavated trench apparently intended to drain them to the pond (ESA 2014; Pg. 2). The ESA analysis goes on to specifically identify that the: "...deeper excavation and surrounding shallow depressions within the proposed project site are features that exhibit hydrology and vegetation characteristics of wetlands. Hydric soil is presumed present due to the year-round inundation and presence of obligate wetland plants." (ESA 2014; Pg. 3)

For additional purposes of comparison, BSK has provided a time-series of aerial photos of the site using Google Earth historic imagery for the period spanning through 2013 (Figures 3, 4 and 5). The imagery provides a clear indication of vegetation through its distinct shape, and indications of both reflectance and morphology for water features. The time series does not provide information for the missing intervals, and so the relative changes of feature geometry (relative position and size) over time are used to confirm persistence of those features.

May 6, 2009 - There are two large parking lots visible and the main pond feature has been filled through the middle such that it now has two features, and numerous small seasonal water features (Figure 3).

On April 3, 2011, the apparent open water and seasonal wetland features have naturalized with several areas of vegetation growing in around them (Figure 4).

January 1, 2013 - The water features are again fully flooded and consist of two large wetted areas (Figure 5). According to the aerial photograph, the total waters and wetland area was approximately 31,000 sq.ft./0.71 ac. on October 24, 2014. The available Google Earth historic imagery supports the history of water body formation and maintenance over time.

### 3. REGULATORY BACKGROUND

Any person, firm, or agency planning to alter or work in navigable waters of the U.S., including planning to discharge dredged or fill material, must first obtain authorization from the USACE. Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act of 1899 prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from the USACE (33 U.S.C. § 403). Section 301 of the Federal Water Pollution Control Act and Amendments of 1972 (CWA) prohibits the discharge of pollutants, including dredged or fill material, into waters of the U.S. without a Section 404 permit from USACE (33 U.S.C. § 1344). State Water Quality Certification may be required by the Regional Water Quality Control Board before other permits are issued. If a proposed project will result in the alteration of a California lake or streambed, the California Department of Fish and Wildlife (CDFW) require notification prior to commencement, and may require a Lake or Streambed Alteration Agreement.

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According to the Code of Federal Regulations, the definition of "waters of the U.S." includes:

- (1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
  - (2) All interstate waters including interstate wetlands;
  - (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce.
  - (5) Tributaries of waters identified in paragraphs (a) (1) through (4) of this section;
  - (6) The territorial seas;
  - (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.
- (33 C.F.R. § 328.3)

This approach to the waters determination extent has been modified somewhat with recent revisions under the Clean Water Rule, now subject to litigation<sup>1, 2</sup>:

- (8) All waters located within the 100-year floodplain of a water identified in paragraphs (a)(1) through (3) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (a)(1) through (5) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1) through (3) of this section.

And, a more detailed nexus test:

- "(5) Significant nexus. The term significant nexus means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in paragraphs (a)(1) through (3) of this section.

<sup>1</sup> [http://www2.epa.gov/sites/production/files/2015-05/documents/fact\\_sheet\\_summary\\_final\\_1.pdf](http://www2.epa.gov/sites/production/files/2015-05/documents/fact_sheet_summary_final_1.pdf)

<sup>2</sup> <http://www2.epa.gov/cleanwater/clean-water-rule-litigation-statement>

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The term “in the region” means the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water’s effect on downstream paragraph (a)(1) through (3) waters shall be assessed by evaluating the aquatic functions identified in paragraphs (c)(5)(i) through (ix) of this section. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in paragraphs (a)(1) through (3) of this section. Functions relevant to the significant nexus evaluation are the following:

- (i) Sediment trapping,
- (ii) Nutrient recycling,
- (iii) Pollutant trapping, transformation, filtering, and transport,
- (iv) Retention and attenuation of flood waters,
- (v) Runoff storage,
- (vi) Contribution of flow,
- (vii) Export of organic matter,
- (viii) Export of food resources, and
- (ix) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in paragraphs (a)(1) through (3) of this section.”

However, that rule is held in abeyance and follows the historic application of applying relevant case law, applicable policy, and the best science and technical data on a case-by-case basis in determining which waters are protected by the Clean Water Act, until litigation over the subject matter is resolved.

Wetlands are defined as:

“...those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

(USACE 1987, p. 9, citing Federal Register 1980, 1982)

The USACE and the Environmental Protection Agency issued the U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook on May 30, 2007, to provide guidance based on the Supreme Court’s decision regarding *Rapanos v. United States* and *Carabell v. United States* (USACE, 2007a, p. 6).

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The decision provides new standards that distinguish between traditional navigable waters (TNWs), relatively permanent waters (RPWs), and non-relatively permanent waters (non-TNWs). Wetlands adjacent to non-TNWs are subject to CWA jurisdiction if: the water body is relatively permanent, or if a water body abuts a RPW, or if a water body, in combination with all wetlands adjacent to that water body, has a significant nexus with TNWs (USACE, 2007a, pp. 6 to 7). The significant nexus analysis assesses the flow characteristics and functions of the water on the “chemical, physical, and biological integrity of downstream traditional navigable waters” (USACE, 2007b, p. 6).

### 4. METHODOLOGY

BSK conducted a fenceline wetland delineation at the site on June 30, 2015. A combination variable intensity, pedestrian and vehicular survey was made of the site perimeter and of areas of the project site clearly visible from the public right-of-way. During the site visit, BSK staff followed to the wetland delineation process set forth in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0 (USACE, 2008) and verified using the adjacent zone’s Western Mountains, Valleys, and Coast Region (Version 2.0). These methods include vegetation identification using the USACE State of California 2014 Wetland Plant List (USACE, 2014), including vegetation densities, soil classifications, plant species classification to the extent possible given the site access conditions. Some features could only be identified using desktop analysis of available aerial imagery. Because of documented hazardous wastes and the fact that permission to enter the site was not available, the BSK wetland scientist performed a visual survey from adjacent public roads and right of ways. Because of this limited access, qualified wetland scientists worked with BSK’s GIS specialists to identify and estimate the extent of the features remotely, using topographic maps and aerial photography. Animal and plant species observed during the site visit are included in Table 1 at the end of this report.

Wetlands were differentiated from uplands based upon visible hydrology, soil patterns, and vegetative characteristics, as well as observations by workers in a prior assessment (ESA 2014). The wetland boundaries were determined by site-specific characteristics that would result in the best representation of all three parameters using the available information.

#### 5.1.1 Hydromorphic Vegetation

Hydromorphic vegetation was evaluated by a field assessment and comparing plant species with the USACE State of California 2014 Wetland Plant List (USACE, 2014). This list determines the possibility of whether plants are found in wetlands, uplands, or both. After classification, the USACE “rapid test” was conducted to determine the hydromorphic vegetation parameter.

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### 5.1.2 Wetland Hydrology

It should be noted that the site was surveyed during a "drought year" (USBR, 2014). This requires "Difficult Wetland Situations" procedures (USACE, 2008). Surveys conducted during drought years require a slight variation in the approach to wetland delineation. This approach provides a better estimate of wetland potential based on the three parameters (wetland hydrology, hydric soils, hydrophytic vegetation) during a drought. Indicators A1, B1, B4, B6, B7, B8 and B10 were identified.

### 5.1.3 Hydric Soil

Hydric soils were not possible to assess given the nature of this assessment. However, ESA identified hydric soils but did not specify their Munsell color codes (ESA 2014).

## 5.2 Wetlands and Other Waters of the U.S.

Wetlands and other waters were described using the Cowardin classification system (Cowardin *et al.* 1979). As described above, approximate wetland boundaries were assessed by using the available characteristics and the supplemental features that demonstrated USACE characteristics for wetland and adjacent upland areas. All features that potentially met USACE wetland criteria were recorded as polygons and recorded on Figure 2. The boundaries of wetlands were extrapolated from the field map by following topographic contours, clear hydrologic boundaries, and wetland vegetation boundaries.

Cowardin's wetland classification is as follows, Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; 2 and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin *et al.* 1979).

Other waters of the U.S., were delineated using the methods described above and supported by the use of 'A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States' (USACE 2008a), and in USACE Regulatory Guidance Letter No. 05-05 (USACE 2005), where appropriate. These methodologies provided an approach for identifying the lateral limits of other waters of the U.S., using stream geomorphology and vegetation (USACE 2008a). Indicators of the ordinary high water mark (OHWM) evaluated in the field included natural lines impressed on banks, stain lines, depositional features, shelving, changes in soil character, changes in vegetation, destruction of terrestrial vegetation, and the presence of litter and debris. A clear debris line and shelf was visible.

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## 5. OBSERVATIONS

The approximately 12-acre site includes two large paved areas (Southwest parking lot approximately 79,910 sq.ft./1.83 ac. and Northeast parking lot approximately 91,776 sq.ft./2.11 ac.) currently being used as paid parking lots; an area of soil stockpiles (31,066 sq.ft./0.71 ac) on the eastern edge of the site (Terry A. Francois Boulevard); and an adjoining large open field, open water (22,115 sq.ft./0.51 ac) and wetland swale complex, (approximately 904 sq.ft./0.02 ac.) (closest to the Southwest parking lot) shown on Figure 2.

At the time of observation, the unvegetated, open water area encompassed the majority of the water feature, with a patchy, but substantial fringe of palustrine emergent (predominately alkali bulrush [*Bolboschoenus maritimus*]) and riparian plants. The visible forb layer was typical of this sort of ruderal site. The plants were concentrated on the two narrow ends of the water feature. The narrower channel and the seasonal wetlands apparent from the aerial photographs (Figures 3, 4 and 5) were not clearly visible from the site perimeter fence(es). Using the Cowardin classification, the pond feature appears to presumptively meet the Palustrine Aquatic Bed, algal class.

In terms of its biological use and wetland habitat function, numerous native birds were observed within, and in some cases flying to and from the water body. Several Canada geese (*Branta canadensis*) were seen, including what appear to be adult plumage juveniles; three killdeer (*Charadrius vociferous*), including two juveniles; a female and a juvenile mallard (*Anas platyrhynchos*); several crows (*Corvus brachyrhynchos*); two non-native Eurasian collared-doves (*Streptopelia decaocto*); and numerous non-native rock doves/pigeon (*Columba livia*). The site has significant use for nesting and foraging by these bird species.

The approximately 12-acre project site, where vegetated, is primarily non-native (ruderal) grassland habitat. The APE is almost exclusively comprised of the herb stratum. It is bounded by urban development on all four sides. The drainage patterns for the entire property are complex but from observations, including the aerial photos, it appears that the bare ground portion and parts of the paved parking lots provide the contributing watershed for the pond.

The western portion of the site contains the most visible potential wetland characteristics and therefore, it was analyzed for wetland characteristics within the APE (approximately 0.53 acres). The features are connected by a large ditch excavated to apparently drain the swale. The wetland surface is concave with a roughly rectangular shape in this area and approximately 30-40 feet across at the widest section.

Aerial imagery from 2008 and 2010 identifies the east of the pond with standing water. The seasonal feature is much larger than mapped because it appears that it has been newly drained into the pond feature through a large trench. This satisfies the wetland hydrology parameter "B7" and meets the wetland hydrology criterion. This plot was located within a seasonal wetland.

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### 6. DISCUSSION

As a part of the delineation process, a preliminary search of the relevant historic and modern records of the project area was completed by BSK. Those records include National Wetland Inventory (NWI) and Soil Conservation Service (SCS) maps and Federal Emergency Management Agency (FEMA) databases were conducted to evaluate if any documented wetlands were located on or near the site. The NWI and SCS databases do not identify wetlands or hydric soils respectively within the APE. This is because the site is identified as urban developed and non-natural conditions as a result of the historic filling of the Mission Bay. San Francisco has not yet completed FEMA flood maps of this area. Soil profiles were identified in the following report, LTR 2015, which verified that the site was developed on fill, placed over the Bay muds. The nearest open water to the project site is San Francisco Bay located approximately 702 ft. east of the project site.

San Francisco Bay is considered jurisdictional waters of the U.S. pursuant to Section 404 of the Clean Water Act (USACE, 1987, p. 2; 33 C.F.R. § 328.3). Mission Bay itself was an open tidal bay within the estuary, fully navigable and subject to use in international commerce. The bay was filled in a series of stages prior to the CWA (LTR 2015).

The site features are located approximately 702 feet from the nearest documented waters, tidal waters of the United States - San Francisco Bay, therefore adjacent to waters, meet the significant nexus tests; and are "other waters" as well, namely an open water pond feature and its associated wetlands is. The wetland features have been independently judged by two sets of wetland experts as having met wetland criteria for hydrology and vegetation (BSK and ESA), and soils (ESA). The site has been subject to significant recent disturbance which has apparently removed most of the vegetation associated with the seasonal wetlands. But these characteristics were evident despite being assessed during a drought season (USBR, 2014). Historic aerial photos from verify standing water on the site (Digital Globe, 2014). Therefore, all three the wetland hydrology indicators are satisfied (USACE, 2008).

The APE is within 1,000 feet of tidal waters (702 feet to the permanent water feature, and appears to provide the nexus functions: (i) Sediment trapping, (ii) Nutrient recycling, (iii) Pollutant trapping, transformation, filtering, and transport, (iv) Retention and attenuation of flood waters, (v) Runoff storage, (vii) Export of organic matter, (viii) Export of food resources, and (ix) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species (BSK 2015; ESA 2014; DSEIR 2015). It further contains characteristics of a wetland as defined by the USACE, and therefore, should be classified as waters and a wetland within the identified wetland boundary.

### 7. LIMITATIONS

The observations, assessment and recommendations submitted in this report are based upon the data obtained from existing reports prepared by others, limited field investigation, and limited access site

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observations. The report does not reflect variations which may occur beyond the assessed area. The findings of the field observation may have a potential for negative impact(s) on the value or suitability of the site for some purposes. BSK cannot assume liability for any such negative impact(s). Permitting requirements or permit interpretations may change over time. The findings of this report are valid as of the present. However, changes in the conditions of the site can occur with the passage of time, whether caused by natural processes or the human-induced changes on this property or adjacent properties. In addition, changes in applicable or appropriate standards or practices may occur, whether they result from legislation, governmental policy, or the broadening of knowledge. BSK's services were performed in a manner consistent with the level of care and skill ordinarily exercised by other professionals practicing in the same locale and under similar circumstances at the time the work is performed.

BSK has prepared this report for the exclusive use of Soluri-Meserve. The report has been prepared in accordance with generally accepted practices which existed in northern California at the time the report was written. No other warranties either expressed or implied are made as to the professional advice provided under the terms of BSK's agreement with Soluri-Meserve.

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[LC-BIO-1]  
cont.

TABLE 1  
OBSERVED BIOLOGICAL RESOURCES

Scientific Name	Common Name	Wetland Status
<b>Plants</b>		
<i>Schoenoplectus maritimus</i>	Alkali Rush	OBL

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Draft Wetland Delineation Report  
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Animals		
<i>Anas platyrhynchos</i>	Mallard	
<i>Branta canadensis</i>	Canadian Goose	
<i>Columba livia</i>	Rock Dove	
<i>Corvus brachyrhynchos</i>	American Crow	
<i>Streptopelia decaocto</i>	Eurasian collared-doves	

Source: BSK Associates, 2015  
OBL: Obligate, FACW: Facultative Wetland, FAC: Facultative, FACU: Facultative Upland, UPL: Upland, N/A: Not available (USACE, 2014)  
\* <http://rsgisias.crrel.usace.army.mil/NWPL/>

**TABLE 2**  
**EESTIMATED AREA OF POTENTIAL EFFECT UPLAND AND WETLAND ACREAGES**

Area	Acreage
Upland	11.47 acres
Permanent Wetland	0.51 acres
Seasonal Wetland	0.02 acres
<b>TOTAL</b>	<b>12.0 acres</b>

49  
[LC-BIO-1]  
cont.

## 8. REFERENCES

DigitalGlobe, 2014. Aerial Images from 2/7/2008 and 3/17/2010 in Google Earth.

BBL Environmental Associates [BBL], 2006. Revised Risk Management Plan, Former Petroleum Terminals and Related Pipelines Located at Pier 64 and the Vicinity, City and County of San Francisco, California.

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## O-MBA20L7

Draft Wetland Delineation Report  
Proposed Warriors Project  
San Francisco, California

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Cowardin, et al, 1979. Classification of Wetland and Deepwater Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service FWS/OBS-79/31.

ESA Associates [ESA], 2014. Habitat Value Assessment at the Mission Bay Blocks 29-32 Project Site.

DSEIR, 2015. Draft Subsequent Environmental Impact Report. <http://www.gsweventcenter.com/>

Langan Treadwell Rollo [LTR], 2015. Phase II Environmental Site Assessment, Golden State Warriors Arena, Blocks 29-32, Mission Bay, San Francisco, California.

National Resource Conservation Service, 2014. National Hydric Soils List.

USACE, 1987. Wetlands Delineation Manual, Technical Report Y-87-1, prepared by Environmental Laboratory. U.S. Army Engineers Waterways Experiment Station, Vicksburg, MS (<http://el.erdc.usace.army.mil/elpubs/pdf/wlman87.pdf>).

USACE, 2007a. Jurisdictional Determination Form Instructional Guidebook ([http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/cwa\\_guide/jd\\_guidebook\\_051207final.pdf](http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/cwa_guide/jd_guidebook_051207final.pdf)).

USACE, 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0).

USACE, 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). May 2010.

USACE, 2014. State of California 2014 Wetland Plant List.

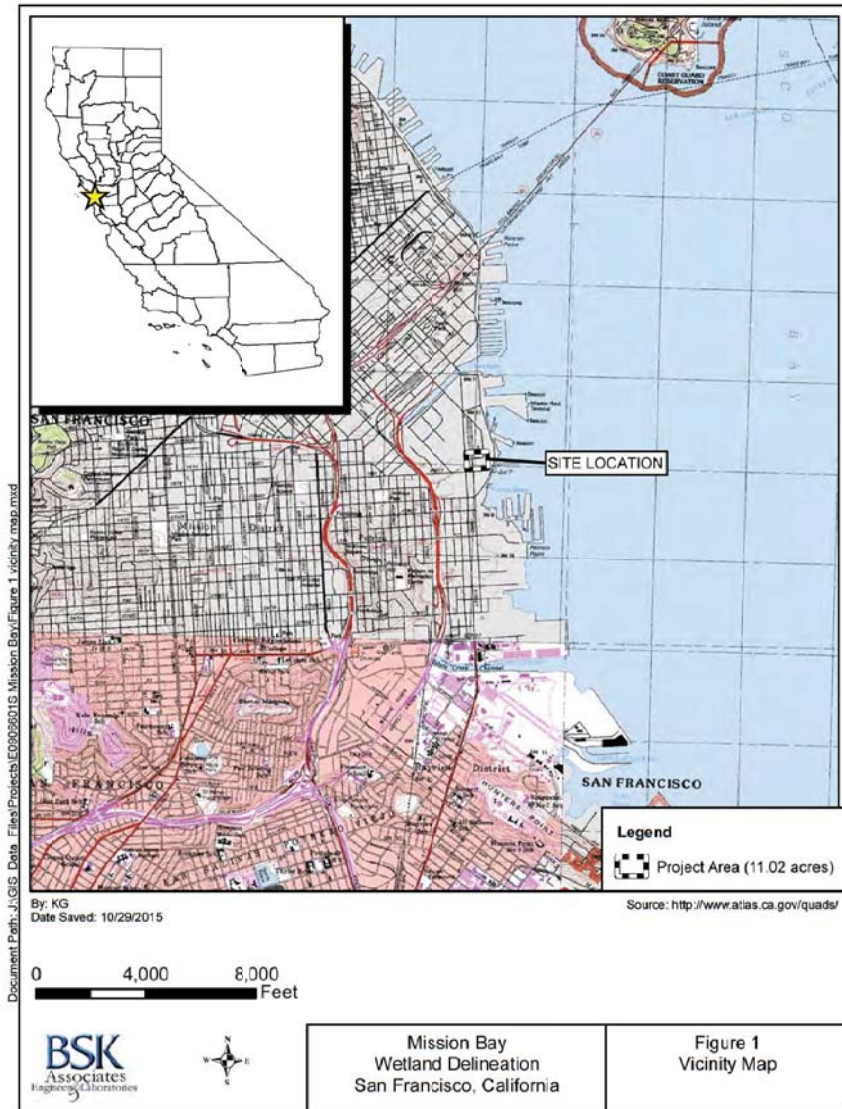
USBR, 2014. Federal Agencies and State of California Coordinating Response to Drought. (<http://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=45886>)

EPA, 2015. US Environmental Protection Agency Final Clean Water Rule <http://www2.epa.gov/cleanwaterrule/final-clean-water-rule>

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Legend  
 Project Site Boundary



0 150 300  
Feet

Source: Google Earth Historical Images, May 6, 2009

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Associates  
Engineering & Laboratories

Mission Bay  
Wetland Delineation  
San Francisco, California

Figure 3  
2009 Aerial Photograph

O-MBA20L7



Legend  
 Project Site Boundary



0 150 300  
Feet

Source: Google Earth Historical Images, April 3, 2011

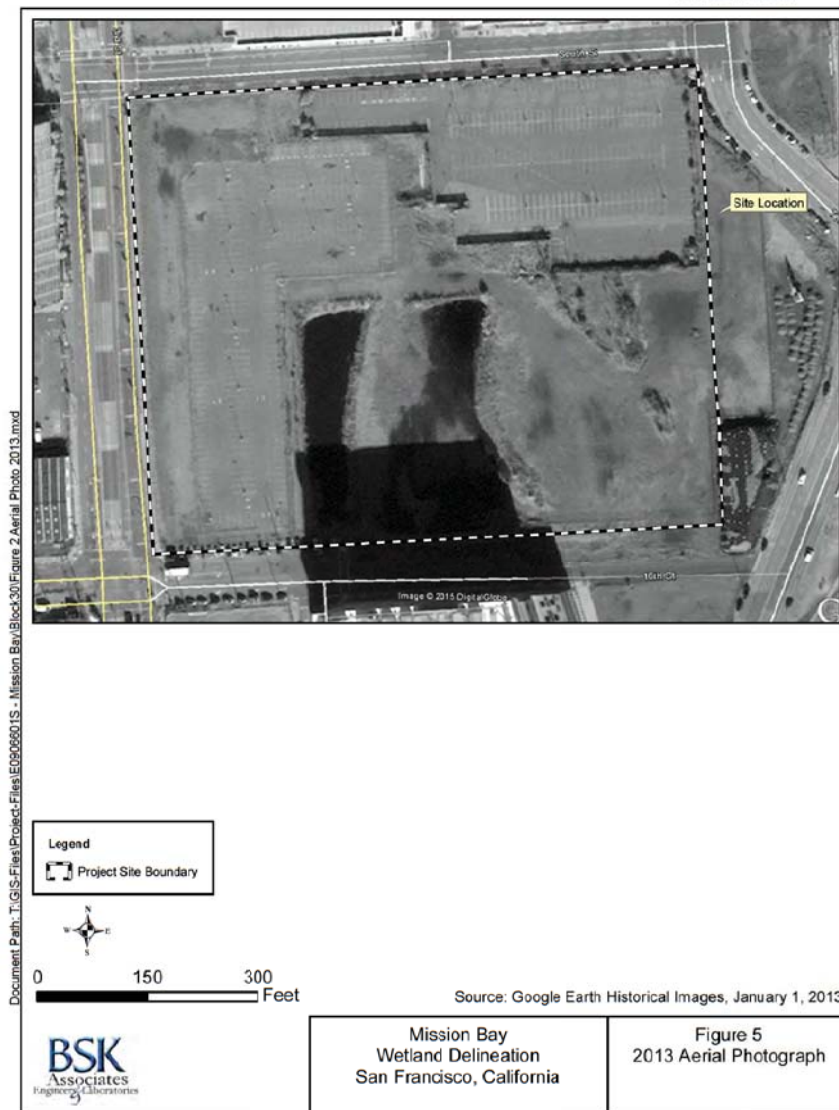
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Engineering & Laboratories

Mission Bay  
Wetland Delineation  
San Francisco, California

Figure 4  
2011 Aerial Photograph



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#### QUALIFICATIONS

##### Certifications:

Hazardous Analysis and Critical Control Point: Aquatic Nuisance Species, USFWS, 2003  
Constructed Wetland Designer, UW, Madison, 1993  
40-CFR Hazardous Waste Handling, 1992-1993

##### Education:

Ph.D., candidate (ABD) Riparian and Wetland Research Program, University of Montana, School of Forestry, Missoula, MT, 2003

M.Sc., Environmental Science, Lesley College, Cambridge, MA, 1991

B.Sc., Microbiology (Business concentration), Colorado State University, Fort Collins, CO, 1987

##### Experience:

BSK Associates 2009-Present  
Wallace-Kuhl 2009-2006  
PLF 2006-2003  
KYNF 2003-2000

#### Erik Ringberg – Ecological Services Group Manager

##### Professional Background:

Mr. Ringberg began his career as an environmental scientist in 1992. His academic background includes a B.Sc. in Microbiology from Colorado State University, a M.Sc. in Environmental Science from Lesley University in Cambridge, Massachusetts, and he is a Ph. D. candidate at the University of Montana, in Riparian and Wetland Ecology. He has directed organizations, managed departments, technical staff, contractors, and volunteers for the public and private sectors. He has coordinated development and restoration projects with state and federal oversight agencies, developed threatened and endangered species management plans. Mr. Ringberg directed and advised non-profit, tribal, and local government agencies on wildlife mitigation measures, special studies, habitat management and restoration for listed species.

Mr. Ringberg has completed numerous California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) processes and associated field studies, including protocol studies for listed avian, terrestrial, and aquatic species and their associated habitats in California, Nevada, and Montana. He has delineated Streamside Management Zones, US Army Corps of Engineers - Wetlands and Ordinary High Water Marks and California "isolated" waters. Mr. Ringberg has also directed both large and small-scale wetland and river restorations.

##### Relevant Project Experience:

##### Field Studies and Observations

##### Wetland Delineations

21 linear miles of Putah Creek for USACE NWP-27 and for Regional General Permits; 17 linear miles of Cache Creek for the County of Yolo for a USACE Regional General Permit 58; 2,560 acres of wetland delineations in Tehama County; and, hundreds of acres for development projects in Fresno Sacramento, Solano, Stanislaus, and Yolo Counties.

##### Wetland Habitat Reconstruction Analysis

Reconstruction of pre-impact wetland and upland conditions using stratified random statistical analysis of NHP data, and site specific data from local informants, for the Yerington Nevada area.

##### Worker Environmental Awareness Protection Plans

Preparation and presentation of Worker Environmental Awareness Protection (WEAP) Plans for project which may have potential to impact wetlands, listed species and breeding birds in Solano and Yolo Counties.

##### Field Ecology

*Putah and Cache Creek Plans, Yolo County, CA, Washoe County, and Lyon County NV* - Technical Advisor on riparian and wetland habitat analysis, restoration (and SMARA-equivalent) planning for Yolo County Resource Management Planning

BSK Corp



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### Erik Ringelberg – Ecological Services Group Manager

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Area for Cache Creek, advisor for large-scale watershed restorations (and dam removal) on Putah Creek; and, restoration and management plans for the Pyramid Lake Paiute Reservation. Developed historic species lists for Cache Creek and Yerington region.

**Pyramid Lake Paiute Tribe, Big Valley, Robinson, and Upper Lake Rancherias, in Washoe County NV and Clear Lake County, CA** - Directed a multi-disciplinary lake and river research-management program for threatened and endangered species. Provided technical support for federal and state-listed species and those of tribal concern (Lahontan cutthroat trout, Cui-ui, Clearlake hitch, Sacramento perch, and tui chub), including managing 6 hatcheries, a water quality laboratory, and tagging programs.

**Missoula County Riparian Inventory and Classification Project, Missoula County, MT** - Co-funded, developed, and managed the Missoula County riparian inventory. Researched the integration of riparian and wetland vegetation, habitat, and stream classifications.

#### Certifications

Hazardous Analysis and Critical Control Point: Aquatic Nuisance Species, USFWS  
Constructed Wetland Designer; University of Wisconsin, Madison

#### Invited Speaker

"Large Scale Wetlands Mapping: New Technology and Databases" and "Mitigation and Restoration Challenges" for Lorman's: "Wetland Regulation in California" Sacramento, CA, 2014.

"Agricultural Impacts from Restoration Activities in the Delta." Watershed Education Foundation. Stockton, CA. 2014.

"Elk Slough Restoration and Flood Control Opportunities." Watershed Education Foundation. Sacramento CA. 2013.

"Lessons Learned from Stream Restorations in the Central Valley." Landscape Architecture Department. University of California, Davis. CA. 2013.

"Managing Project Environmental Risks" (co-presenter). 17th Annual Conference. American Public Works Association. Richmond, CA. 2013.

Ringelberg, Erik. "Riparian Restoration - Team Approaches." Landscape Architecture. University of California, Davis. CA. 2011. Lecture.

Ringelberg, Erik. "Applied Ecosystem Restoration." Wildlife, Fish and Conservation Biology, Habitat Conservation and Restoration. University of California, Davis. CA. 2009. Lecture.

Ringelberg, Erik. "Adaptive Management, principles and guidelines." Central Valley Regional Water Quality Control Board, Mercury TMDL and BPA Amendment. Stockton, CA. 2009. Lecture.

Ringelberg, Erik. "Hitch Ecology and Adaptive Management." Hinthil Environmental Resource Consortium. Middletown, CA. 2009. Lecture.

Ringelberg, Erik. "Riparian Management, Cache and Putah Creeks." Restoring habitats Conference, Cache Creek Conservancy. Woodland, CA. 2009. Lecture.

#### Additional Technical Training

Special Status Amphibians and Reptiles of Northern California, University of California. 2008.

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### Erik Ringelberg – Ecological Services Group Manager

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Vernal Pool Workshop, California Native Grasslands Association. 2007.  
California *Anostracan* and *Notostracan* Identification Class and Practical Exam, Belk. 2006.  
UCSB Vernal Pool Workshop, Society for Ecological Restoration. 2006.  
Guidance for Characterization, Design Construction and Monitoring of Mitigation Wetlands. USEPA Interstate Technology and Regulatory Council. 2006.

#### Professional Organizations

California Invasive Plant Council, California Native Grasslands Association, California Society for Ecological Restoration, Society of Wetland Scientists, Native American Fish and Wildlife Society



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## Kevin Grove – Staff Scientist

### Professional Background:

Mr. Grove began his career as a Transportation Planning Intern with Yolo County Transportation District in 2013. During this internship, Mr. Grove managed the Thanksgiving Shuttle marketing program. He also assisted with significant route and schedule changes for YCTD's local transit agency, Yolobus.

Mr. Grove has assisted with site investigations including biological monitoring, data collection, soil sampling, remote camera operation and field mapping. Additionally, he has interpreted aerial photographs, prepared GIS Figures, conducted 1600 Permit Vegetation Inventory Surveys, Breeding Bird Surveys, Ordinary High Water Mark Surveys, and Wetland Delineation Surveys. He supports the preparation of California Environmental Quality Act documentation, including Environmental Impact Reports, Initial Studies and Mitigated Negative Declarations for proposed projects. His work includes conducting special studies, section writing reference development, and quality assurance.

### Example of Relevant Project Experience:

#### Field Work

##### **Putah Creek Restoration Projects, Yolo and Solano County, California**

Mr. Grove conducted 1600 Permit Vegetation Inventory Surveys, mapped various species of trees using GPS locations, tree diameters, and aerial photograph interpretations. Mr. Grove also conducted Ordinary High Water Mark and Wetland Delineation surveys using centimeter accuracy GPS equipment.

##### **Kilgore Property – Proposed Entertainment Center, EPA Brownfields Phase II ESA, City of Rancho Cordova**

Using GIS, Mr. Grove created all site maps and figures for the project area. He worked with Erik Ringelberg, Ecological Services Group Manager, to complete an ecological screening to determine the potential presence of endangered species on site. He also conducted inventory, documentation, and graphical representation of all soil samples from the project. Mr. Grove assisted with the writing of the Quality Assurance Project Plan (QAPP).

##### **Pleasants Dixon Main Drain/V-Drain Enlargement Project – Burrowing Owl Protocol Survey, Dixon, CA**

Mr. Grove assisted Erik Ringelberg, Ecological Services Group Manager, with a burrowing owl survey to determine the potential presence of burrowing owls on the project site.

##### **Pleasants Creek Bank Stabilization Project – Breeding Bird Survey, Vacaville, CA**

Mr. Grove assisted Mr. Ringelberg, with a breeding bird survey to determine the potential presence of breeding birds on the project site.



### QUALIFICATIONS

#### Education:

B.S. Environmental Policy  
Analysis and Planning and  
minor in Managerial  
Economics, University of  
California, Davis 2013

#### Experience:

BSK Associates  
October 2013-Present

Yolo County Transportation  
District  
2013

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### Special Studies Modeling

#### Air Modeling and Reporting

- CalEEMod
- Caline4
- CT-EMFAC 5

##### **Grapevine Shopping Center Project, Kern County, California**

Mr. Grove performed air quality modeling to determine air emissions during construction and operation of the proposed project. Implemented mitigation measures to reduce emissions from the project.

##### **Proposed Newcastle Fire Station Phase I and CalEEMOD Air Modeling, Placer County, California**

Mr. Grove performed air quality modeling to determine air emissions during construction and operation of the proposed project.

#### Noise Modeling

- Federal Highway Administrations (FHWA) Traffic Noise Model TNM 2.5
- FHWA Roadway Construction Noise Model RCNM

##### **Grapevine Shopping Center Project, Kern County, California**

Mr. Grove conducted noise modeling to determine noise levels from the construction and operation of the proposed project. Implemented mitigation measures to reduce noise levels from the project.

#### Stormwater Pollution Prevention Plans (SWPPP)

Mr. Grove aided QSDs with the preparation and implementation of multiple SWPPP reports. He is trained for on-site water sampling for pH and turbidity, BMP inspection, and monitoring. He also has experience with the SMARTS online permitting process for Risk Levels 1, 2 and "exempt" projects.

#### Environmental Impact Report Preparation

##### **Grapevine Shopping Center Project, Kern County, California**

Mr. Grove performed noise and air quality modeling for preparation of an Environmental Impact Report for the construction of an approximately 45-acre shopping center. Developed mitigation measures to reduce air emissions and noise levels from the project.

#### Phase I and Phase II Environmental Site Assessments

##### **10<sup>th</sup> and R Street Phase I, Sacramento, CA**

In the Phase I work of the 10th and R Street project, Mr. Grove created site maps and figures using GIS. These maps identified potential hazardous materials, underground storage tanks, existing plumbing, and on-site observations.

##### **McClish Property Phase II, Yolo County, California**

In the Phase II work of the McClish Property Project, he created site maps and figures for the project area using GIS. These maps included monitoring well locations and ground water flow direction.

#### Professional Organizations

American Public Works Association

BSK




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EXHIBIT N

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FILED  
In the Office of the Secretary of State  
of the State of California  
AUG 23 1993  
MARION JUNG, Secretary of State  
By *[Signature]* Deputy

EXECUTIVE DEPARTMENT  
STATE OF CALIFORNIA



EXECUTIVE ORDER W-59-93

WHEREAS, wetlands act as primary producers in the food chain, help retain floods, recharge and discharge groundwater, act as water quality filters, provide recreational and scenic values, and harbor a significant number of California's threatened and endangered plant and animal species; and

WHEREAS, in the nineteenth century and early decades of the twentieth century as much as ninety percent of California's historical wetlands base has been converted to other uses, with a consequent reduction in the functions and values wetlands provide; and

WHEREAS, wetlands in California continue to be converted to other uses and degraded by sedimentation, loss of associated upland habitat, and other factors; and

WHEREAS, past conservation efforts have resulted in the long-term protection of approximately two-thirds of California's remaining wetland acreage; and

WHEREAS, the administration of wetlands programs is often time consuming, duplicative, inconsistent, and therefore costly to landowners and public agencies; and

WHEREAS, it is the policy of the State of California to streamline regulatory permitting processes;

NOW, THEREFORE, I, PETE WILSON, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, do hereby issue this order to become effective immediately:

I. It is hereby declared to be the policy of the State of California that all State government programs and policies that affect the wetlands of California be coordinated as described herein.

II. It is hereby declared to be the policy of the State of California that its Comprehensive Wetlands Policy rests on three primary objectives:

- 1) To ensure no overall net loss and long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property.
- 2) To reduce procedural complexity in the administration of State and Federal wetlands conservation programs.
- 3) To encourage partnerships to make restoration, landowner incentive programs, and cooperative planning efforts the primary focus of wetlands conservation.

All agencies of the State shall conduct their activities, consistent with their existing authorities, in accordance with these three objectives.

FROM : CALIFORNIA STATE ARCHIVES  
PHONE NO. : 916 651 6684  
JUL 21 2008 05:34PM P2/4



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- III. The California Wetlands Conservation Policy addresses wetlands inventory, planning, wetlands, regulation, landowner incentives, wetlands mitigation banking, and other wetlands conservation approaches (e.g., acquisition, restoration, management, and education). The goal of the California Wetlands Conservation Policy is to achieve a long term increase of wetlands acreage, functions and values in California. Steps taken to achieve this goal shall emphasize maintaining economic uses (e.g., agriculture) of restored and enhanced lands and be achieved through the voluntary participation of landowners. This goal is not meant to be achieved on a permit-by-permit basis. The Task Force or specific agencies as identified in the "California Wetlands Conservation Policy," will develop and implement the following:
- (a) a Statewide wetlands inventory and wetlands accounting system;
  - (b) identification and implementation of regional and Statewide wetlands restoration goals;
  - (c) State agency assistance and support for local and regional wetlands planning efforts;
  - (d) promotion of landowner incentive programs to preserve, restore, and enhance wetlands, including the provision of adequate funding from State and Federal sources;
  - (e) delegation of the permitting authority for the Federal Clean Water Act Section 404 program from the U.S. Army Corps of Engineers to the San Francisco Regional Water Quality Control Board and, for a limited set of activities, the San Francisco Bay Conservation and Development Commission as part of a longer term effort to explore feasibility of Statewide delegation, with adequate Federal funding, of the program;
  - (f) development of a consistent regulatory wetlands definition for State agencies that improves the overall efficiency of the Federal-State permitting process;
  - (g) development of a balanced Statewide policy concerning Army Corps of Engineers nationwide permits;
  - (h) development of consistent standards and guidelines concerning mitigation and monitoring of mitigation and restoration efforts;
  - (i) actions that promote efficiency of wetlands-related permitting processes of various State agencies, including but not limited to creation of consistent deadlines, establishment of concurrent permit review procedures, and sponsorship of pre-application consultations between permittees and permitting agencies;
  - (j) development of means to provide flexibility in the regulatory process for the accidental or unintentional creation of wetlands, and for allowing public agencies, water districts, and landowners to establish wetlands on their property consistent with the primary purpose of the property;
  - (k) development of Statewide wetland mitigation banking guidelines and the development of demonstration wetland mitigation banks in the Central Valley;
  - (l) enhanced coordination of State, Federal, and private acquisition, restoration, and incentive programs, including the establishment of a demonstration program in Southern California;
  - (m) ongoing management of wetlands which maintains or enhances wetlands values and recognizes the responsibility to minimize impacts to surrounding landowners;

FROM : CALIFORNIA STATE ARCHIVES PHONE NO. : 916 651 6604 JUL 11 21 2008 05:35PM P3/4

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- (n) the development of internal policies within State agencies that encourage wetland conservation activities which are compatible with programmatic goals such as flood control, groundwater recharge, water management, water pollution control, recreation, and other purposes;
  - (o) such other matters as are deemed necessary to carry out the purposes of this Executive Order.
- IV. It is hereby declared to be the policy of the State of California that the California Wetlands Policy and Plan will initially emphasize Regional Strategies in the Central Valley, the San Francisco Bay Area, and in Southern California. They will be designed to test how wetlands programs can be implemented, refined, and combined in unique ways to achieve the goals and objectives of this California Wetlands Conservation Policy.
- V. An Interagency Task Force on Wetlands will be established by the Secretary of Resources and Secretary for Cal/EPA to provide coordination and information exchange among agencies, boards, commissions, and departments as necessary to ensure continued coordinated development and implementation of the California Wetlands Conservation Policy. The Task Force shall invite the participation as necessary of other boards and commissions, and local, Federal, and private agencies which have jurisdiction, expertise, and resources which may contribute to the continued development and implementation of the California Wetlands Conservation Policy. The Secretary of the Resources Agency and the Secretary for Cal/EPA shall serve as co-chairmen.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 23rd day of August 1993.

*Pete Wilson*  
Governor of California

ATTEST:  
*Martha Jones*  
Secretary of State



FROM : CALIFORNIA STATE ARCHIVES PHONE NO. : 916 651 6604 JUL 11 21 2008 05:36PM P4/4



O-MBA20L7

**EXHIBIT O**



**State Water Resources Control Board**

**Office of Chief Counsel**  
1001 I Street • Sacramento, California 95814 • (916) 341-5161  
Mailing Address: P.O. Box 100 • Sacramento, California 95812-0100  
FAX (916) 341-5199 • Internet Address: <http://www.swrcb.ca.gov>



**TO:** State Board Members  
Regional Board Executive Officers

**FROM:** Craig M. Wilson  
Chief Counsel  
**OFFICE OF CHIEF COUNSEL**

**DATE:** January 25, 2001

**SUBJECT:** EFFECT OF *SWANCC V. UNITED STATES* ON THE 401 CERTIFICATION PROGRAM

This memorandum has been prepared to explain the effect of the recent US Supreme Court decision of *Solid Waste Association of Northern Cook Counties v. United States Corps of Engineers* (hereinafter "SWANCC"), which was issued on January 9<sup>th</sup>. The memo is intended to address the impact of the decision on the 401 program (33 U.S.C. § 1341), and to indicate alternative regulatory avenues available to the Regional Boards for waters that are no longer covered by section 404/401 jurisdiction.

**I. Facts of the SWANCC decision and holding**

SWANCC is a consortium of suburban Chicago cities and villages looking to develop a solid waste disposal site. It located a 533-acre parcel that was a gravel-mining pit until about 1960. The pit has reverted into a successional stage forest with seasonal and permanent ponds, but it was not a delineated wetland. SWANCC purchased the site and applied for a § 404 permit. In furtherance thereof, it sought certification from the state of Illinois.

The Clean Water Act (CWA) only regulates what it refers to as "navigable waters." The CWA defines navigable waters as "waters of the United States." In the past, the agencies responsible for implementing the Clean Water Act interpreted the term "waters of the United States" broadly. They determined that it reflected Congress' intention to regulate all waters that the Congress could constitutionally regulate under its commerce power. (See Art. I, Section 8 of the U.S. Constitution, generally known as the Commerce Clause.) Specifically, if the water had any possible connection to interstate commerce, it fell within the scope of the CWA. Since 1986 the Army Corps of Engineers' (COE) regulations reflected this determination. They stated that "waters of the United States" includes, among other things, intrastate waters:

**California Environmental Protection Agency**





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- (a) That are or would be used as habitat by birds protected by migratory bird treaties; or
- (b) That are or would be used as habitat by other migratory birds that cross state lines; or
- (c) That are or would be used as habitat for endangered species; or
- (d) That are or would be used to irrigate crops sold in interstate commerce.

This has been dubbed “The Migratory Bird Rule.”

Although the SWANCC site was not a “wetland” according to the COE’s wetland delineation manual, the COE found that approximately 121 bird species dependent on aquatic environments were observed at the site, and thus found the site to be a water of the United States. Accordingly the COE asserted jurisdiction over the site. The state of Illinois granted 401 certification, but the COE denied the 404 permit on traditional grounds.<sup>1</sup>

SWANCC sued to challenge the COE’s jurisdiction over the site, claiming that the COE could not regulate non-navigable, isolated, intrastate waters based on the presence of migratory birds, and that Congress lacked authority under the Commerce Clause to grant the COE such jurisdiction in any event. Although the COE prevailed in the trial and appellate courts, the US Supreme Court reversed, and invalidated the Migratory Bird Rule. It held that the rule is not a fairly supported interpretation of the term “waters of the United States,” and the COE exceeded its jurisdiction by interpreting the CWA’s reach to include isolated, inland, non-navigable waters. The Court held or implied that the CWA might fairly extend to:

- “(a) [t]hose waters of the United States which are subject to the ebb and flow of the tide, and/or are presently, or have been in the past, or may be in the future susceptible for use for purposes of interstate or foreign commerce;
- “(b) waters that were or had been navigable in fact or which could reasonably be so made;
- “(c) non-navigable wetlands adjacent to open waters;
- “(d) wetlands [that are] ‘inseparably bound up with the waters of the United States; and
- “(e) water bodies [capable] of use by the public for purposes of transportation or commerce.”

<sup>1</sup> The COE found (1) that SWANCC had not established that the proposal was the least harmful practicable alternative; (2) that SWANCC’s failure to set aside funds for leak remediation was unacceptable risk to public drinking water supplies; and (3) that the impact to the waters was unmitigable because a landfill cannot be redeveloped into forested habitat.

California Environmental Protection Agency



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The Supreme Court questioned the constitutionality of any amendment to the CWA, if Congress was so inclined, that would purport to assert federal jurisdiction over isolated, inland waters. In other words, if Congress tried to adopt the “migratory bird rule,” a majority of the Court indicated its belief that it would exceed the power granted to Congress under the U.S. Constitution.

### II. SWANCC’s effect upon the 401 certification program will not be wholly determined until the COE issues guidance implementing the decision.

California’s right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from the COE, or another application for a federal license or permit. Thus if the Corps determines that the water body in question is not subject to regulation under the COE’s 404 program, for instance, no application for 401 certification will be required. Accordingly, the COE’s interpretation of the SWANCC decision will determine SWANCC’s impact upon a major portion of California’s 401 program. The COE has yet to issue guidance setting forth how the SWANCC decision will be implemented. Clearly, however, the Migratory Bird Rule will not determine the scope of the COE’s authority over isolated waters. Isolated non-navigable waters (including most non-tidal wetlands) appear to be outside the purview of section 404 of the Clean Water Act.

### III. The SWANCC decision does not affect the Porter-Cologne authorities to regulate discharges to isolated, non-navigable waters of the state.

If anything definitive can be said about the SWANCC decision, it is that the Supreme Court believes regulating inland waters, including isolated wetlands, vernal pools, etc., are the primary (and probably now the exclusive) province of the state. California has numerous authorities that require these waters to be protected. None of those state authorities are affected by the U.S. Supreme Court’s decision. Accordingly, the SWANCC decision has no impact upon the Regional Board’s authority to act under state law. Some major relevant provisions are set forth below.

Water Code section 13260 requires “any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements).” (Water Code § 13260(a)(1) (emphasis added).) The term “waters of the state” is defined as “any surface water or groundwater, including saline waters, within the boundaries of the state.” (Water Code § 13050(e).) The U.S. Supreme Court’s ruling in SWANCC has no bearing on the Porter-Cologne definition. While all waters of the United States that are within the borders of California are also waters of the state, the converse is not true—waters of the United States is a subset of waters of the state. Thus, since Porter-Cologne was enacted California always had and retains authority to regulate discharges of waste into any waters of the state, regardless of whether the COE has concurrent jurisdiction under section 404. The fact that often Regional Boards opted to regulate discharges to, e.g.,

California Environmental Protection Agency





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vernal pools, through the 401 program in lieu of or in addition to issuing waste discharge requirements (or waivers thereof) does not preclude the regions from issuing WDRs (or waivers of WDRs) in the absence of a request for 401 certification.

Under state law, the duty to file a report of waste discharge is mandatory:

All of the following persons shall file with the appropriate regional board a report of the discharge. (Water Code § 13260(a).)

Furthermore, the Regional Board is required to issue or waive WDRs whenever it receives a report of discharge:

The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge... with relation to the conditions existing in the disposal area or receiving waters upon, or into which the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose [etc.] (Water Code § 13263(a).)

Notably, every person is precluded from initiating new discharges or making material changes to discharges prior to filing the report of waste discharge described in section 13260, and for 120 days thereafter unless they have received WDRs (or appropriate waivers). (Water Code § 13264(a).) Given the state's interest in protecting wetlands, it is incumbent upon staff to act within the 120 days. A fill thereafter may be lawful. If, however, it appears that the Regional Board is unable to meet and consider WDRs (or a waiver thereof) within the statutory time allotted, the Regional Board could issue a cleanup and abatement order under section 13304 against anyone who, through a discharge to waters of the state, has created or threatens to create a condition of pollution. "Pollution" is defined as an alteration of the quality of the waters of the state, which unreasonably affects its beneficial uses. (Water Code § 13050(l).) Wildlife is a beneficial use, and thus filling or threatening to fill wetlands would provide grounds to issue an appropriate order under 13304.

The California Environmental Quality Act (CEQA) also provides a requirement for the Regional Boards to exercise their authorities to require minimization and mitigation of impacts to waters of the state. Whenever a Regional Board is a responsible agency under CEQA, and the Lead Agency has prepared an EIR, the Regional Board must not only review the CEQA document, but it must reach its own conclusions on whether and how to approve the project involved. (14 CCR § 15096(a).) Moreover, the Regional Board must mitigate or avoid the direct or indirect environmental effects of the parts of the project it approves, and it is prohibited from approving a project if there is a feasible alternative or feasible mitigation measures that would

*California Environmental Protection Agency*



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lessen or avoid significant impacts. (14 CCR § 15096(g)(1) and (g)(2).) Furthermore, as a responsible agency the Regional Board must make specific findings relating to the feasibility of avoidance, minimization, or mitigation of the adverse effects. (14 CCR §§ 15096(h), 15091, 15093.) Feasible changes or alterations within the control of the Regional Board must be articulated in the WDRs.

Notably, since 1993 and continuing through the present, the official policy of the United States and the State of California respecting wetlands has and continues to be one of "no net loss." Accordingly, the charge to protect the state's wetlands has already been articulated. In areas where the COE determines it no longer has jurisdiction, it would be consistent with present federal and state policy for the Regional Boards to fill the gap. This may require contacting the applicable COE divisions for assistance in identifying pending 404 permit applications, or conducting outreach to the local development interests to remind them that, irrespective of the COE's authority or the 404 program, they still must comply with applicable state requirements for discharges.

**IV. Conclusion**

While the *SWANCC* decision will no doubt have repercussions for the state's 401 certification program, the reach of the decision will not be clear until the COE issues guidance indicating how it intends to implement the holding. The 404 program may be dramatically scaled back or the COE could read the decision narrowly, as merely invalidating the Migratory Bird Rule. Irrespective, the state retains its independent authority under Porter-Cologne and other statutes, to regulate discharges of waste to all waters of the state, including those waters that are no longer considered waters of the United States. The thrust of the *SWANCC* decision is that regulation of inland, isolated waters is and should be under the primary authority of the state rather than the federal government. Given the state and federal "no net loss" of wetlands policy, the Regional Board's should consider that regulating any discharges of waste to waters that may no longer be subject to COE jurisdiction is both authorized and justified.

If you have any questions about this memo, please contact Michael Levy, Staff Counsel at (916) 341-5193.

cc: Edward C. Anton, EXEC  
Stan Martinson, DWQ  
RWQCB Attorneys, OCC

*California Environmental Protection Agency*





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**EXHIBIT P**

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## State Water Resources Control Board

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Terry Tamminen  
Secretary for Environmental  
Protection

### Executive Office

1001 I Street • Sacramento, California 95814 • (916) 341-5615  
Mailing Address: P.O. Box 100 • Sacramento, California • 95812-0100  
Fax (916) 341-5621 • <http://www.swrcb.ca.gov>



Arnold Schwarzenegger  
Governor

TO: Regional Board Executive Officers

FROM: Celeste Cantu  
Executive Director  
EXECUTIVE OFFICE

DATE: JUN 25 2004

SUBJECT: GUIDANCE FOR REGULATION OF DISCHARGES TO "ISOLATED" WATERS

### Background

As you know, Governor Schwarzenegger's *Action Plan for California's Environment* directs State agencies to fill any gaps in wetlands protection. The Supreme Court's 2001 decision in *Solid Waste Agency of Northern Cook County v. U. S. Army Corps of Engineers (SWANCC)* found that certain "isolated" wetlands and other waters are out of federal jurisdiction under the Clean Water Act, and it is the responsibility of the states to protect them. As a result of the decision, many projects carried out in "isolated waters" that previously would have required a Clean Water Act section 404 permit now no longer need one. From January 1, 2001 to December 31, 2003, the U. S. Army Corps of Engineers (USACE) disclaimed jurisdiction over 160 water bodies comprising 449 acres of waters of the State, including 251 acres of wetlands, 121 acres of riparian area, and 77 acres of other waters (these figures are under-reported because 24 percent of the jurisdictional disclaimers did not specify the sizes of the disclaimed water bodies). USACE continues to disclaim waters, pursuant to relevant federal guidance.

In response to *SWANCC*, the State Water Resources Control Board (SWRCB) has:

- issued a January 25, 2001 legal memorandum asserting the authority and responsibility of the SWRCB and Regional Water Quality Control Boards (RWQCBs) to regulate discharges to "isolated" waters,
- coordinated with USACE to ensure that the SWRCB and RWQCBs receive copies of all USACE jurisdictional disclaimer letters and developed a database of such disclaimers and related RWQCB orders,
- submitted March 13, 2003 comments on a federal proposal that would have redefined "Waters of the United States,"
- submitted to the legislature an April 2003 report titled *Regulatory Steps Needed to Protect and Conserve Wetlands Not Subject to the Clean Water Act*, and

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- on May 4, 2004, adopted general waste discharge requirements for certain discharges to non-federal waters.

However, we have not yet developed a systematic, statewide approach for protecting "isolated" waters. The effects of *SWANCC* have fallen on the State at a time of shrinking agency budgets, and discharges to disclaimed waters have gone almost entirely unregulated by the RWQCBs; they are also often not subject to Department of Fish and Game (DFG) or other State regulation.

At their January 6, 2004 meeting, RWQCB Assistant Executive Officers suggested that the SWRCB provide direction for protecting "isolated" waters; and at the April 21, 2004 meeting of the Water Quality Certification Program Coordinating Committee (Corcom), RWQCB 401 Liaisons recommended the adoption of the following guidance. This document provides internal guidance only and has no regulatory effect. It is being forwarded electronically to RWQCB 401 staffs and will be posted on the SWRCB 401 Program's Intranet site (<http://dwqweb/wqcet/>).

### Guidance

Discharges subject to Clean Water Act section 404 receive a level of regulatory review and protection by the USACE and are often also subject to streambed alteration agreements issued by the DFG; whereas discharges to waters of the State subject to *SWANCC* receive no federal oversight and usually also fall out of DFG jurisdiction. Absent RWQCB attention, such discharges will generally go entirely unregulated. Therefore, to the extent that staffing constraints require the RWQCBs to regulate some dredge and fill discharges less closely than others and consistent with other RWQCB priorities, RWQCBs should consider setting a higher regulatory priority on discharges to "isolated" waters than to discharges of similar extent, severity, and permanence to federally-protected waters of similar value. Dredging, filling, or excavation of "isolated" waters constitutes a discharge of waste to waters of the State, and prospective dischargers are required to submit a report of waste discharge to the RWQCB and comply with other requirements of Porter-Cologne. Therefore, you should protect "isolated" waters in your Region by systematically instituting the following procedures:

1. Request a report of waste discharge from all recipients of USACE jurisdictional disclaimers, using the attached or a similar letter.
2. Pursuant to the requirements of the California Permit Streamlining Act, advise prospective dischargers within 30 days of receiving a report of waste discharge of whether their application is complete and, if not, what is needed to make it complete (assuming that you do not take regulatory action with 30 days).
3. Take appropriate regulatory action in response to receiving the report of waste discharge, using either the SWRCB's Water Quality Order No. 2004-0004-DWQ, *Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction* (General WDRs) or other individual or general WDRs or waivers. The General WDR can be downloaded from the SWRCB's website at "<http://www.swrcb.ca.gov/cwa401/index.html>". In issuing WDRs or waivers, you may refer to the same regulatory considerations which you generally apply to

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issuance of Clean Water Act section 401 Water Quality Certifications (401 certification) and to those articulated in the General WDRs.

4. Copy SWRCB and USACE staffs on your requests for reports of waste discharge and on your regulatory orders. Addresses of appropriate parties are:

401 Program Manager  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814

U.S. Army Corps of Engineers  
(Appropriate District below):

Regulatory Branch  
Sacramento District  
1325 J Street  
Sacramento, CA 95814-2922

Regulatory Branch  
San Francisco District  
333 Market Street  
San Francisco, CA 94105

Regulatory Branch  
Los Angeles District  
911 Wilshire Boulevard, 11<sup>th</sup> Floor  
Los Angeles, CA 90017-3401

Use the USACE's file number, whenever available, on all correspondence. SWRCB staff will use the USACE file number (or your file number in its absence) to correlate USACE jurisdictional disclaimers, RWQCB requests for reports of waste discharge, applicants' reports of waste discharge, and RWQCB regulatory orders. Using this information, the SWRCB will assist your tracking of SWANCC-related discharges and will report on our effectiveness in filling the regulatory gap created by the current federal interpretation of SWANCC.

Thank you for your effective management of our very limited program resources in regulating dredge, fill, and excavation discharges to wetlands, riparian areas, headwater streams, and other waters. If you have any questions, please contact Stan Martinson, Chief of the Division of Water Quality, at 916-341-5458 or at [marts@swrcb.ca.gov](mailto:marts@swrcb.ca.gov). You may also contact Oscar Balaguer, Chief of the Wetlands and Certification Program, at 916-341-5485 or at [balao@swrcb.ca.gov](mailto:balao@swrcb.ca.gov).

Attachment

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JUN 25 2004

cc: Terry Tamminen  
Agency Secretary  
California Environmental Protection Agency

Chris Potter  
Wetland Coordinator  
Resources Agency  
1416 Ninth Street  
Sacramento, CA 95814

Larry Week, Chief  
Watershed Restoration Branch  
Department of Fish and Game  
1416 Ninth Street, 12<sup>th</sup> Floor  
Sacramento, CA 95814

Andrew Rosenau, Chief  
Regulatory Branch  
Sacramento District  
U.S. Army Corps of Engineers  
1325 J Street, Room 1444  
Sacramento, CA 95814-2922

Calvin C. Fong, Chief  
Regulatory Branch  
San Francisco District  
U.S. Army Corps of Engineers  
333 Market Street  
San Francisco, CA 94105-2197

Dave Castenon, Acting Chief  
Regulatory Branch  
Los Angeles District  
U.S. Army Corps of Engineers  
300 North Los Angeles Street, Room 6062  
Los Angeles, CA 90012

Tim Vendlinski, Chief (WTR-8)  
Wetlands Regulatory Office  
U.S. Environmental Protection Agency,  
Region 9  
75 Hawthorne Street  
San Francisco, CA 94105

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Electronic cc: Regional Board  
Assistant Executive Officers

RWQCB WQCP Liaisons and other staff

*California Environmental Protection Agency*



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ATTACHMENT: MODEL LETTER FORMAT

*Regional Board Letterhead*

Dear \_\_\_\_\_

REQUEST FOR REPORT OF WASTE DISCHARGE

By copy of a U.S. Army Corps of Engineer (USACE) <date> jurisdictional disclaimer letter, we understand that you may be planning to dredge, fill, or excavate in waters which the USACE has determined to be outside of federal jurisdiction. Such activities may constitute a discharge of waste, which could affect the quality of waters of the State, as defined in California Water Code (CWC) section 13050. Pursuant to CWC section 13260, you are required to file with this Regional Water Quality Control Board (RWQCB) a Report of Waste Discharge (ROWD) describing the proposed discharge at least 140 days before it occurs (See CWC § 13264). This letter constitutes a formal request for such a ROWD. Pursuant to CWC section 13261, failure to respond to this request before discharging, or discharging without regulatory authorization, may result in substantial civil or criminal penalties.

If you do not plan to conduct any discharge to any "isolated" water as described above, please advise us so that we can close our file. If you are planning such a discharge, use one of the two forms listed below, as appropriate, to submit a ROWD. To expedite processing, please include a copy of this request letter with your response, and indicate the USACE's file number on all correspondence.

1. If the discharge will not be greater than 0.2 acre and 400 linear feet (for fill and excavation) or 50 cubic yards (for dredging), you may be eligible for the State Water Resource Control Board's *General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction* (GWDRs). You must submit a Notice of Intent (NOI) and a mitigation plan demonstrating that you have taken practicable steps to avoid and minimize impacts; that you will compensate for unavoidable permanent impacts to wetlands and headwater streams; and that you will comply with other specified conditions. Note that you will not be covered by the GWDRs unless the RWQCB sends you a written Notice of Enrollment; or unless the RWQCB does not issue you a Notice of Exclusion within 45 days of receiving your complete NOI. You can download a copy of the GWDRs and the NOI form at <http://www.swrcb.ca.gov/cwa401/index.html>. The form is also available in hardcopy from the RWQCB. Note that if your project is eligible under these GWDRs, your NOI need only be filed 45 days before the proposed discharge.
2. If your proposed discharge does not qualify for the GWDRs, you may need individual waste discharge requirements. To apply, please use the form normally used to apply for water quality certification. You can download that form at [www.rwqcb.org](http://www.rwqcb.org). Be sure to indicate that you are responding to this request for a ROWD. The form is also available in hardcopy from the RWQCB.



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As instructed in the NOI form, please include with your application any environmental documents, technical reports, plans, diagrams, maps, mitigation and monitoring proposals, and other documents which will help characterize the discharge. Please also submit the appropriate "To Non-Federal Waters" fee as determined from California Code of Regulations Title 23, section 2200 (a)(2). The fee schedule may be viewed and fees calculated at <http://www.swrcb.ca.gov/cwa401/docs/feccalculator.xls>.

Please send the application package to the address below. Please also send a duplicate copy of the application form/ROWD, but without any supplemental documents, to: SWANCC-ROWD, Wetlands and Certification Unit, Division of Water Quality, State Water Resources Control Board, 1001 I Street, 15<sup>th</sup> Floor, Sacramento, CA 95814.

If you have any questions, please contact <name> at <telephone> or <email>.

cc: SWANCC-ROWD, Water Quality Certification Unit  
Division of Water Quality  
State Water Resources Control Board  
100 I Street, 15<sup>th</sup> Floor  
Sacramento, CA 95814

<name>  
Chief, Regulatory Branch  
US Army Corps of Engineers  
\_\_\_\_\_ District  
<address>

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**EXHIBIT Q**



## O-MBA20L7

### STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER NO. 2004-0004-DWQ

#### STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR DREDGED OR FILL DISCHARGES TO WATERS DEEMED BY THE U.S. ARMY CORPS OF ENGINEERS TO BE OUTSIDE OF FEDERAL JURISDICTION (GENERAL WDRs)

#### I. FINDINGS

The State Water Resources Control Board (SWRCB) finds that:

##### Reasons for issuing these General WDRs

1. Section 13260(a) of the California Water Code (Water Code) requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, which could affect the quality of the waters of the State<sup>1</sup>, file a report of waste discharge (ROWD). The discharge of dredged or fill material may constitute a discharge of waste that could affect the quality of waters of the State.
2. California has largely relied upon its authority under section 401 of the federal Clean Water Act (CWA) (33 U.S.C. § 1341) to regulate discharges of dredged or fill material to California waters. That section requires an applicant to obtain "water quality certification" from California that the project will comply with State water quality standards before certain federal licenses or permits may be issued. The permits subject to section 401 include permits for the discharge of dredged or fill materials (CWA section 404 permits) issued by the U.S. Army Corps of Engineers (ACOE).
3. Given the regulatory process employed under section 401, waste discharge requirements under the Porter-Cologne Water Quality Control Act were typically waived for projects that required certification. Regional Water Quality Control Board (RWQCB) waivers also applied to discharges outside of ACOE jurisdiction. However, these waivers expired as of January 1, 2003 pursuant to the requirements of SB 390. These General WDRs regulate some of the activities for which WDRs were previously waived.
4. The certification process under section 401 only applies to those waters that are subject to the reach of the CWA. The CWA applies to "navigable waters," which are defined in the CWA as "waters of the United States." The term "waters of the United States" is defined expansively in 33 Code of Federal Regulations (CFR), part 328. In 2001, the U.S. Supreme Court issued a decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 159 (2001) ("SWANCC"), which held that certain "isolated" waters are not subject to CWA jurisdiction merely because they are frequented by migratory birds that cross state lines. The full implications of SWANCC are yet to be determined in the federal courts, but as a result

<sup>1</sup> "Waters of the State" as defined in Water Code section 13050(e).

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of the decision, many projects that previously would have required a section 404 permit now no longer need one. From January 1, 2001 to December 31, 2003, the ACOE disclaimed jurisdiction over 160 water bodies comprising 449 acres of waters of the state, including 251 acres of wetlands, 121 acres of riparian area, and 77 acres of other waters (these figures are under-reported because 24 percent of the jurisdictional disclaimers did not specify the sizes of the disclaimed waterbodies). The prospect of issuing waste discharge requirements for each of the now non-federal waters, especially in a time of budgetary contraction, is daunting. Many of the projects that were traditionally subject to certification requirements involved small discharges with few or no permanent impacts. It is the intent of these General WDRs to regulate a subset of the discharges that have been determined not to fall within federal jurisdiction, particularly those projects involving impacts to small acreage or linear feet and those involving a small volume of dredged material.

5. Wetlands, riparian areas, and headwaters are shallow waters of the state, which are by their nature affected most often and severely by filling and excavation. Regulatory attention to these water bodies is necessitated by the State "No Net Loss" Policy for wetlands (Executive Order W-59-93); the high habitat value of these waters; the basin-wide value of these waters for pollutant removal, floodwater retention, channel stability, and habitat connectivity; the high number of special-status species associated with these waters and their associated habitats; the high percentage of historic losses of these waters in California; the vulnerability of these waters to future impacts from projected population growth and land development; and the high level of public interest in these waters.
6. Water Code section 13263(a) requires that waste discharge requirements (WDRs) be prescribed as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge. Such WDRs must implement any relevant water quality control plans, taking into consideration beneficial uses to be protected, the water quality objectives reasonably required for those purposes, other waste discharges, the need to prevent nuisance, and the provisions of section 13241 of the Water Code.
7. Water Code section 13263(i) authorizes the SWRCB to prescribe general WDRs for a category of discharges if the discharges are produced by the same or similar operations; the discharges involve the same or similar types of waste; the discharges require the same or similar treatment standards; and the discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.
8. The discharges authorized by these General WDRs meet the criteria for general WDRs set forth in Water Code section 13263(i) because they are all produced by dredging or filling operations; they all involve the discharge of earth, rock, or similar solid materials; they are all limited in size per the terms of the WDRs; they all require similar mitigation techniques to avoid, minimize, and/or compensate for their adverse impacts; and they are all relatively small surface water bodies or water body segments that have been deemed by ACOE to be "isolated," do not meet the federal wetland criteria, or are above the "line of ordinary high water" limit of federal jurisdiction. They are appropriately regulated under General WDRs because of their similar nature, large numbers, and amenability to being regulated through the use of similar discharge restrictions, as specified in these General WDRs. Regulation of



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such discharges by these General WDRs will allow the SWRCB and RWQCBs to direct limited staff time to larger, more complex, and potentially more damaging discharges to waters deemed to be outside of federal jurisdiction.

### Eligibility Criteria

9. These General WDRs are restricted to dredged or fill discharges of not more than two-tenths (0.2) of an acre and 400 linear feet for fill and excavation discharges, and of not more than 50 cubic yards for dredging discharges. Projects that may be covered under these General WDRs include land development, detention basins, disposal of dredged material, bank stabilization, revetment, channelization, and other similar projects. These size maximums help limit the potential environmental impact of the discharges and make them amenable to similar discharge restrictions, while permitting about half of the projects discharging to non-federal waters, as projected from historical data on discharge sizes. The size and volume restrictions are appropriate because larger projects involve a significantly greater risk to the environment and are more appropriately regulated by individual WDRs.

Absent a potential effect on the quality of waters of the state, no notification is required under these General WDRs.<sup>2</sup> The “quality of waters” refers to chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affects its use.<sup>3</sup> Because of the variability, complexity, and interactions of the factors affecting the quality of waters, it is not possible to provide advice on the kind, size, location, or duration of discharges that can affect water quality under all circumstances. Generally, discharges of dredged, fill, or excavated material to a wetland, or to the active channel or bed of a waterbody will require regulation. Discharges to a riparian area or to an area in proximity to a waterbody can affect the quality of the water if they directly or indirectly result in a discharge to the water (e.g., via stormwater flows, during flood events, or by generating pollutants or increased runoff); are associated with a change in the nature of vegetation that could affect water quality (e.g., by affecting pollutant removal, stream shading, or bank stability); or change the hydrologic or geomorphologic characteristics of the waterbody during some flow condition.

These General WDRs do not set a lower size limit below which a Notice of Intent is not required. Neither the Porter-Cologne Water Quality Control Act nor the federal CWA establish a lower size threshold for permitting. If a lower threshold were established in these General WDRs, discharges below that threshold would be subject to regulation under individual WDRs or an individual waiver of WDRs, thus defeating the purpose of these General WDRs. Moreover, size is not the sole factor dictating the value of a wetland or other water. Small, strategically placed waters, or segments of waters, can play important roles in supporting local habitat, habitat connectivity, pollutant removal, floodwater attenuation, and other beneficial uses. In addition, without a reporting requirement, there would be no way for the State to ensure that multiple small discharges will not have significant cumulative effects.

10. Discharges of fill can directly or indirectly destabilize the channel or bed of a receiving water by changing geomorphic parameters, including hydrologic characteristics, sediment characteristics, or stream grade. Such destabilization diminishes the ability of the water body

<sup>2</sup> Water Code section 13260

<sup>3</sup> Water Code section 13050(g)

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to support designated beneficial uses. Quantification and mitigation of such impacts may require detailed project-specific analyses. Therefore, these General WDRs do not authorize discharges that could destabilize the channel or bed of a receiving water.

11. In urbanizing basins or other situations, a large number of relatively small projects potentially eligible for these General WDRs, in their aggregate, may adversely impair the ability of the water body to support beneficial uses. Quantification and mitigation of such impacts may require basin-wide analyses. Therefore, these General WDRs do not authorize discharges that, when considered in conjunction with other potential discharges, could cause a significant cumulative effect on water quality or beneficial uses.
12. To the extent they are determined to fall within federal jurisdiction, it is likely that the SWRCB and RWQCBs will continue to regulate dredged or fill discharges primarily through their authority under section 401 of the CWA. Therefore, these General WDRs do not apply to discharges to federal waters that are subject to sections 401 and 404 of the CWA. These General WDRs likewise do not apply to discharges regulated under a section 402 storm water permit.
13. Discharges which could have a significant impact on rare, candidate, threatened, or endangered species require detailed project-specific analysis and individual regulation. Such discharges are therefore not authorized by these General WDRs.
14. Although a discharge may be eligible for coverage under these General WDRs, the RWQCB may elect to regulate the discharge under other WDRs or waivers thereof.
15. Discharges that would be exempt pursuant to section 404(f) of the CWA are waived from these WDRs. This waiver shall not affect a RWQCB’s authority to issue individual WDRs or waivers for such discharges if it deems it appropriate.

### Mitigation Plan

16. SWRCB Resolution No. 68-16, “Statement Of Policy With Respect To Maintaining High Quality Of Waters In California” (“Antidegradation Policy”), states that discharges to existing high quality waters will be required to meet WDRs which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur, and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.
17. Executive Order W-59-93, dated August 23, 1993, establishes a California Wetlands Conservation Policy including an objective to ensure no overall net loss of and a long term net gain in the quantity, quality, and permanence of wetland acreage and value in California (“No Net Loss Policy”).
18. Filling wetlands, riparian areas, headwaters, and other waters causes partial or complete loss of the beneficial uses provided by those waters. To reconcile such losses with the “No Net



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Loss” requirements of Executive Order W-59-93 and the “Antidegradation” requirements of SWRCB Resolution No. 68-16, these General WDRs require mitigation plans to ensure that impacts are mitigated through avoidance and minimization and that unavoidable loss of beneficial uses is offset with appropriate compensatory mitigation, including creation, restoration, or (in exceptional cases) preservation of other waters of the state. These mitigation requirements are consistent with those adopted by the U.S. Environmental Protection Agency and the ACOE for regulation of dredged or fill discharges to federal waters under CWA section 404.

19. To comply with the objective of the State “No Net Loss Policy” to ensure the quantity, quality, and permanence of wetland acreage and values in California, and with the “Antidegradation” requirements of SWRCB Resolution No. 68-16, these General WDRs require that compensatory mitigation areas for permanent impacts be subject to a deed restriction or other legal instrument that ensures preservation of the mitigation in perpetuity. These General WDRs do not generally require compensatory mitigation for temporary impacts, because the SWRCB does not anticipate that projects eligible under this order would ordinarily create temporary impacts of a size, severity, and/or duration that would have a significant adverse impact on beneficial uses. The decision in this order to generally require compensatory mitigation only for permanent impacts is not meant to be a precedent for any other SWRCB or RWQCB order.
20. Consistent and equitable application of these General WDRs is in the interest of environmental protection and the applicants. These General WDRs therefore provide guidance to SWRCB and RWQCB staffs regarding factors to evaluate in considering the eligibility of these General WDRs and in evaluating mitigation plans.

### Basin Plans

21. All WDRs must implement the RWQCB Water Quality Control Plan (Basin Plan) for the region affected by the discharge. These General WDRs require dischargers to comply with all applicable Basin Plan provisions, including maintaining the protection of beneficial uses and complying with any prohibitions and water quality objectives governing the discharge.

### Beneficial Uses

22. Beneficial uses are the most fundamental of the State’s water quality standards. RWQCBs designate appropriate beneficial uses for waters in their regions’ Basin Plans. The beneficial uses for the waters of the State include, but are not limited to, domestic supply, municipal supply, agricultural and industrial supply, power generation, recreation, aesthetic enjoyment, navigation, and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

### Fees

23. Water Code section 13260(d)(1) requires that each person for whom WDRs have been prescribed pursuant to section 13263 shall submit an annual fee according to a reasonable fee

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schedule established by the SWRCB. The schedule of fees for discharges of dredged or fill material is published at California Code of Regulations (CCR) 23 section 2200(a)(2). For activities covered by these General WDRs, the SWRCB anticipates that most of the discharges will be one-time and of short duration. Therefore, only a one-time fee usually will be charged.

### California Environmental Quality Act (CEQA)

24. CEQA requires a government agency to comply with certain procedures when it approves or proposes to carry out an activity. (Cal. Code Regs., tit. 14, § 15002(e))
25. Private actions are subject to CEQA if they involve governmental participation, financing, or approval. (Cal. Code Regs., tit. 14, § 15002(c))
26. A Mitigated Negative Declaration in compliance with CEQA has been adopted for these General WDRs.
27. Potential dischargers and all other known interested parties have been notified of the intent to adopt these General WDRs.
28. All comments pertaining to the proposed discharges have been heard and considered in a public meeting.

## II. ORDER

### A. ELIGIBILITY

IT IS HEREBY ORDERED that only discharges that meet the following criteria shall be enrolled under these General WDRs:

1. The discharge shall not be subject to section 404 of the CWA or section 10 of the federal Rivers and Harbors Act. These General WDRs likewise do not apply to discharges regulated under a section 402 storm water permit.
2. The discharge shall be dredged or fill materials.
3. The discharge shall meet the following size criteria:
  - a. Excavation<sup>4</sup> and fill activities must not excavate or fill an area greater than two-tenths (0.2) of an acre of waters of the state, and

<sup>4</sup> “Excavation refers to moving sediment or soil in shallow waters or under no-flow conditions where impacts to beneficial uses are best described by the area of discharge. It typically is done for purposes other than navigation. Examples include trenching for utility lines, other earthwork preliminary to construction, removing sediment to increase channel capacity, and aggregate mining in fresh water.” (Cal. Code Regs., tit. 23, § 2200(a)(2).)



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- b. Linear excavation and fill activities affecting drainage features and shorelines (e.g., bank stabilization, revetment, and channelization projects), must not excavate or fill more than 400 linear feet of waters of the state, measured parallel to the streambank or shoreline, and
  - c. Dredging<sup>5</sup> activities must dredge not more than 50 cubic yards within waters of the state.
  - d. These size criteria apply to discharges, which could either permanently or temporarily affect the quality of waters of the state<sup>6</sup>.
  - e. These size criteria apply to complete projects and shall not be used to authorize “piecemealing” of larger discharges. In regulating recurring discharges, e.g., routine maintenance of sedimentation basins, forebays, or similar waters, these criteria shall be applied for each discharge episode.
4. For purposes of defining the size criteria specified in this section, determining fees as required by section II.B.3, and evaluating mitigation proposals as required by section II.B.4 of these General WDRs, the lateral extent of waters of the state shall be determined by the most expansive of the following:
- a. The federal criteria current on the date of adoption of these General WDRs<sup>7</sup>,
  - b. Headwaters, defined as intermittent and ephemeral drainages.
5. The discharge shall not directly or indirectly destabilize a channel or bed of a receiving water. In determining whether a discharge meets this criterion, the RWQCB Executive Officer<sup>8</sup> will consider potential project-induced changes to:

<sup>5</sup> “Dredging” refers to removing sediment in deeper water to increase the depth. Impacts to beneficial uses are best described by the volume of the discharge. It typically occurs to facilitate navigation and for aggregate extraction in marine waters.

<sup>6</sup> Fill or dredged discharges can *permanently* affect the quality of waters of the state when the discharged material will be in place indefinitely and/or by its nature precludes a reasonable assurance that beneficial uses will be fully reestablished. Examples include filling of wetlands or other waters, streambank hardening, channelization, construction of bridge piers and abutments, and ongoing vegetation removal and channel maintenance. Fill or dredged discharges can *temporarily* affect the quality of waters of the state when the discharged material will be in place for a limited time and/or there is a reasonable assurance that beneficial uses will be fully reestablished once the discharge ceases. Examples include temporary fills, excavation for temporary access roads, and one-time vegetation removal or excavation of sediment. Mitigation measures or management practices may be needed to assure that impacts are “temporary” (e.g., reestablishment of natural grade, revegetation, reestablishment of soil permeability to allow vegetative growth, compaction of backfill to assure that utility trenches do not dewater wetlands).

<sup>7</sup> 33 CFR 328.3(b)-(e), 33 CFR 328.4, 40 CFR 230.41.

<sup>8</sup> For multi-region projects, the SWRCB Executive Director. The terms Executive Officer or Executive Director as used herein include any designees.

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- a. Quantity, velocity, timing, and direction of flow;
  - b. Sediment characteristics;
  - c. Stream grade; and
  - d. Other relevant project-induced changes.
6. The discharge shall not cause in combination with other discharges a significant cumulative effect on water quality or beneficial uses of the waters of the State including, but not limited to, wetlands and headwaters.
7. The discharge shall not adversely impact, either directly or through habitat modification, any plants or animals identified as candidate, sensitive, or special status species in local or regional plans, policies or regulations; or by the California Department of Fish and Game (DFG), the U.S. Fish and Wildlife Service (USFWS), or the National Marine Fisheries Service (NMFS). The project shall not, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number of or restrict the range of an endangered, rare or threatened species.
8. The discharge shall not significantly conflict with any adopted and approved USFWS Habitat Conservation Plan (HCP) or DFG Natural Community Conservation Plan (NCCP).
9. The discharge shall not adversely impact a significant historical or archeological resource, shall not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, shall not disturb any human remains, and shall not eliminate important examples of the major periods of California history or prehistory.
10. The discharge shall not cause conflict with existing zoning for agricultural use or a Williamson Act contract.
11. The discharge, as mitigated, shall not cause significant adverse environmental impacts.
12. Discharges that would be exempt pursuant to section 404(f) of the CWA are waived from these WDRs. This waiver shall not affect a RWQCB’s authority to issue individual WDRs or waivers for such discharges if it deems it appropriate.

**B. APPLICATION REQUIREMENTS**

IT IS FURTHER ORDERED that dischargers seeking enrollment under these General WDRs shall submit the following to the appropriate RWQCB Executive Officer or, in the case of multi-Region projects, to the SWRCB Water Quality Certification Program Manager at least 45 days prior to any discharge:

1. A Notice of Intent (NOI) to be enrolled under and to comply with these General WDRs.
2. Any CEQA documents that have been prepared for the project.



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3. A fee pursuant to Title 23, section 2200 of the CCR.

### 4. A Mitigation Plan:

The Mitigation Plan shall demonstrate that the discharger will sequentially avoid, minimize, and compensate for the adverse impacts to the affected water bodies' beneficial uses (as defined in the applicable Basin Plan). The Mitigation Plan shall address the following:

- a. Avoidance: No discharge shall be permitted if there is a practicable alternative<sup>9</sup> to the proposed discharge, which would have less adverse impact to the aquatic ecosystem, as long as the alternative does not have other significant adverse environmental consequences.
- b. Minimization: Unavoidable temporary impacts shall be mitigated by restoring water bodies and vegetation to pre-discharge conditions as quickly as practicable and by taking other practicable measures to reduce the severity and duration of such impacts.
- c. Compensatory mitigation: Discharges resulting in unavoidable permanent impacts to wetlands or headwaters shall ensure "no net loss" of area (acreage), functions, and beneficial use values by providing appropriate compensatory mitigation including creation, restoration, or (in exceptional cases) preservation. The RWQCB Executive Officer/SWRCB Executive Director will consider, at a minimum, the following when reviewing the adequacy of compensatory mitigation:
  - (1) Onsite habitat value
  - (2) Habitat connectivity value
  - (3) Floodwater retention value
  - (4) Pollutant removal value
  - (5) Ratio of area of proposed compensation to proposed loss
  - (6) Proposed revegetation and irrigation plans and success criteria
  - (7) Availability of suitable soils, hydrology, and natural vegetation at the compensation site
  - (8) Monitoring and reporting provisions
  - (9) Contingency plan for failure to achieve success criteria
  - (10) Any other information requested by the RWQCB or SWRCB.

The Mitigation Plan shall demonstrate that all potentially adverse environmental impacts have been mitigated to a less than significant level. The thoroughness of the alternatives analysis and the extent of the proposed mitigation shall be commensurate with the purpose of the discharge, the value and sensitivity of the receiving water(s), and the extent, severity, and duration of the effect on the quality of waters.

<sup>9</sup> An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded, or managed in order to fulfil the basic purpose of the proposed activity may be considered (this definition is the same as presented in federal regulations at section 230.10(a)(2) of Title 33 of the CFR).

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5. Any other additional information requested by the SWRCB or RWQCB to evaluate the proposed dredged or fill discharge.

A discharge shall not be enrolled under these General WDRs unless the RWQCB Executive Officer or SWRCB Executive Director finds that the Mitigation Plan meets the requirements of this section and the discharge meets all other eligibility criteria. The RWQCB Executive Officer or SWRCB Executive Director shall independently determine eligibility, including the adequacy of the Mitigation Plan, but may consider findings and requirements included in other agencies' permits.

### C. DISCHARGE REQUIREMENTS

IT IS FURTHER ORDERED that the discharger shall comply with the following:

#### Prohibitions:

1. The discharge of material is prohibited until the discharger has received a Notice of Applicability (NOA) from the RWQCB Executive Officer or the SWRCB Executive Director or until 45 days after submission of a complete and accurate NOI.<sup>10</sup> If the RWQCB Executive Officer or the SWRCB Executive Director has not issued a Notice of Exclusion (NOE) within 45 days of receiving a complete and accurate NOI, the discharge may proceed.
2. No discharges are authorized under these General WDRs if the discharger has received a NOE from the RWQCB Executive Officer or the SWRCB Executive Director.
3. The discharge shall not cause pollution, contamination, or nuisance as defined in Water Code section 13050.
4. The discharge of material in a manner other than as described in the NOI, the Findings or conditions of these General WDRs, or in the RWQCB Executive Officer or SWRCB Executive Director-approved Mitigation Plan is prohibited.
5. The discharge of substances in concentrations toxic to human, plant, animal, or aquatic life or that produce detrimental physiological responses therein, is prohibited.
6. The discharge of waste classified as "hazardous" or "designated" as defined in Title 22, section 66261 of the CCR, or Water Code section 13173 is prohibited.

#### Special Provisions:

7. The discharger shall discharge in a manner that is consistent with the information provided in the NOI.

<sup>10</sup> The RWQCB Executive Officer or the SWRCB Executive Director, within 30 days from submittal of the NOI, may find a submittal to be incomplete or inaccurate.



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8. The discharger shall comply with the eligibility criteria for these General WDRs.
9. The discharger shall implement the approved Mitigation Plan.
10. Requested amendments to the approved Mitigation Plan must be submitted in writing to the RWQCB Executive Officer and, for multi-region projects, to the SWRCB Water Quality Certification Program Manager. The discharger may not modify operations until the discharger has received written notification that the RWQCB Executive Officer or SWRCB Executive Director has approved the amendment. If the RWQCB Executive Officer or the SWRCB Executive Director does not disapprove the requested amendment within 45 days of receiving the written notification, the changes to the approved Mitigation Plan may be implemented as described in the requested amendment.
11. If mitigation measures do not meet their interim or ultimate success criteria, the discharger shall implement remedial measures that are acceptable to the RWQCB Executive Officer or SWRCB Executive Director.
12. All compensatory mitigation areas shall be subject to a conservation easement, deed restriction, or other legal instrument, which shall ensure preservation of the mitigation in perpetuity. Documentation of the easement, restriction, or other legal instrument shall be submitted to the RWQCB, or to the SWRCB for multi-region projects, before any discharge authorized by these General WDRs occurs.
13. The discharger, if requested by the RWQCB or SWRCB, shall provide certification that supervisory and other responsible operations personnel have received training regarding these General WDRs.
14. Fueling, lubrication, maintenance, operation, and storage of vehicles and equipment shall not result in a discharge or a threatened discharge to water bodies. At no time shall the discharger use vehicles or equipment that leak any substance that might impact water quality. Staging and storage areas for vehicles and equipment shall be located outside of water bodies.
15. Except in compliance with the terms of an NOA for this order, no construction material, spoils, debris, or other substances associated with this project, that may adversely impact water quality, shall be located in a manner which may result in a discharge or threatened discharge to water bodies.
16. Upon completion of the project, the discharger shall complete a Notice of Termination (NOT) requesting to be un-enrolled from these General WDRs.

### Standard Provisions:

17. A copy of these General WDRs shall be kept at the project site for reference by project personnel. Personnel shall be familiar with its contents.

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18. The discharger shall take all reasonable steps to prevent any discharge in violation of these General WDRs.
19. The discharger shall report promptly to the RWQCB or SWRCB any proposed material change in the character, location, area, and/or volume of the discharge. The discharger shall obtain confirmation from the RWQCB or SWRCB that such proposed modifications do not disqualify the discharger from coverage under these General WDRs. Confirmation or new WDRs shall be obtained before any modifications are implemented. If the RWQCB Executive Officer or the SWRCB Executive Director does not disapprove the proposed change within 45 days of receiving a written report describing the proposed change, the discharge may proceed in accordance with the proposed modifications.
20. These General WDRs do not convey any property rights or exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the discharger from liability under federal, State, or local laws, and do not create a vested right to continue to discharge waste.
21. These General WDRs do not relieve the discharger from the responsibility to obtain other necessary local, State, and federal permits, nor do these General WDRs prevent imposition of additional standards, requirements, or conditions by any other regulatory agency.
22. The discharger shall allow the RWQCB or SWRCB, or an authorized representative, upon the presentation of credentials and other documents, as may be required by law, to do the following:
  - a. Enter upon the premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of these General WDRs,
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of these General WDRs,
  - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under these General WDRs, and
  - d. Sample, photograph, and monitor at reasonable times, for the purpose of assuring compliance with these General WDRs.
23. After notice and opportunity for a hearing, coverage of an individual discharge under these General WDRs may be terminated or modified for cause, including, but not limited to, the following:
  - a. Violation of any term or condition of these General WDRs.
  - b. Obtaining these General WDRs by misrepresentation or failure to disclose all relevant facts.



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- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- 24. The filing of a request by the discharger for an order modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of these General WDRs.
- 25. Where the discharger becomes aware that it failed to submit any relevant facts in an NOI or submitted incorrect information in an NOI to the RWQCB or SWRCB, it shall promptly submit such facts or information.
- 26. The discharger shall furnish, within a reasonable time, any information the RWQCB or SWRCB may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the discharger coverage under these General WDRs. The discharger shall also furnish to the RWQCB or SWRCB, upon request, copies of records required to be kept by these General WDRs.
- 27. The Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under these General WDRs, or falsifying any information provided in the monitoring reports, is subject to civil liability for each day in which the violation occurs.
- 28. The discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with these General WDRs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.
- 29. All reports, notices, or other documents required by these General WDRs or requested by the RWQCB or SWRCB shall be signed by a person described below or by a duly authorized representative of that person.
  - a. For a corporation: by a responsible corporate officer such as (1) a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function; (2) any other person who performs similar policy or decision-making functions for the corporation; or (3) the manager of one or more manufacturing, production, or operating facilities if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
  - b. For a partnership or sole proprietorship: by a general partner or the proprietor.
  - c. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official.
- 30. Any person signing a document under Provision II.C.29 shall make the following certification, whether written or implied:

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- "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
- 31. The discharger shall report any discharge of waste that may endanger public health or the environment. Any information shall be provided orally to the RWQCB within 24 hours from the time the discharger becomes aware of the occurrence. A written report shall also be submitted to the RWQCB Executive Officer within five (5) consecutive days of the time the discharger becomes aware of the occurrence. The written report shall contain (a) a description of the noncompliance and its cause; (b) the period of the noncompliance event, including dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and (c) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
  - 32. The discharger shall report all instances of noncompliance not reported under Provision II.C.31 within seven (7) consecutive days of the time the discharger becomes aware of the occurrence. The report shall contain any applicable information listed in Provision II.C.31.
  - 33. The discharger shall comply with all of the conditions of these General WDRs. Any noncompliance with these General WDRs constitutes a violation of the Water Code and is grounds for an enforcement action.
  - 34. The discharger must comply with all applicable Basin Plan provisions, including maintaining the protection of beneficial uses and complying with any prohibitions and water quality objectives governing the discharge. In the event of a conflict between the provisions of these General WDRs and the applicable Basin Plan, the more stringent provisions prevails.



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**CERTIFICATION**

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the SWRCB held on May 4, 2004.

AYE:

NO:

ABSENT:

ABSTAIN:

\_\_\_\_\_  
Debbie Irvin  
Clerk to the Board

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**ATTACHMENT 1  
TO WQ ORDER NO. 2004-004-DWQ**

**STATE WATER RESOURCES CONTROL BOARD**

**NOTICE OF INTENT (NOI)**

**TO ENROLL UNDER AND COMPLY WITH THE TERMS OF WATER QUALITY ORDER NO. 2004-004 DWQ (GENERAL WDRs), STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR DREDGED OR FILL DISCHARGES TO WATERS DEEMED BY THE U.S. ARMY CORPS OF ENGINEERS TO BE OUTSIDE OF FEDERAL JURISDICTION**

Mark Only One Item	1. New Discharge
	2. Change of Information-WDID # _____

**I. Owner of the Land**

Name				
Mailing Address				
City	County	State	Zip	Phone
Contact Person				

**II. Billing Address**

Name				
Mailing Address				
City	County	State	Zip	Phone
Contact Person				

**III. Discharger (if different from owner of the land)**

Name				
Mailing Address				
City	County	State	Zip	Phone
Contact Person				

**STATE USE ONLY**

WDID:	Regional Board Office:	Date NOI Received:	
		Check #:	



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### IV. Site Location

Street (including address, if any)	
Nearest Cross Street(s)	
County:	Total Size of Site (acres):
Latitude/Longitude (Center of Discharge Area) in degrees/minutes/seconds (DMS) to the nearest ½ second or decimal degrees (DD) to four decimals (0.0001 degree)	
DMS: N. Latitude Deg. _____ Min. _____ Sec. _____	
W. Longitude Deg. _____ Min. _____ Sec. _____	
DD: N. Latitude _____	
W. Longitude _____	
Attach a map of at least 1:24000 (1" = 2000') detail of the proposed discharge site (e.g., USGS 7.5 minute topographic map).	

### V. Discharge Information

Subject	Notes
Name(s) and type(s) of receiving waters:	Receiving water types are: river/streambed, lake/reservoir, ocean/estuary/bay, riparian area, wetland
Eligibility of receiving water. Provide evidence that the water affected by this discharge is deemed to be out side of federal jurisdiction:	U.S. Army Corps of Engineers jurisdictional disclaimer letter, or explanation why such a disclaimer is not needed
Identify all regulatory agencies having jurisdiction over this project. Attach copies of all federal and State license/permit applications or issued copies of licenses/permits from government agencies:	For example: Dept. of Fish and Game Streambed Alteration Agreement, Coastal Commission permit
Proposed project start date:	Expected date of completion:

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Project description:	For example: Discharge of riprap; discharge of fill; excavation for a utility line			
Purpose of the entire activity:	For example: Stream-bank erosion control; flood management; residential development			
Characterization of discharges:	What types of constituents will be discharged? Is the sediment contaminated?			
<b>Fill and Excavation Discharges:</b> For each water body type listed below indicate in ACRES the area of the proposed discharge to waters of the state, and identify the impacts(s) as permanent and/or temporary. For linear discharges to drainage features and shorelines, e.g., bank stabilization, revetment, and channelization projects, ALSO specify the length of the proposed discharge to waters of the state IN FEET. <sup>1</sup>				
Water Body Type	Permanent Impact		Temporary Impact	
	Acres	Linear Feet	Acres	Linear Feet
Wetland				
Streambed				
Lake/Reservoir				
Ocean/Estuary/Bay				
Riparian				
<b>Dredging Discharges:</b> Volume (cubic yards) of dredged material to be discharged into waters of the United States.				

<sup>1</sup> For guidance in determining the extent of impacted waters, see General WDRs, section II.A.4



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VI. California Environmental Quality Act

Will an environmental impact report or a negative declaration be adopted for this project or has one been adopted?

☐ YES ☐ NO

If yes, what is the current status of the environmental impact report or negative declaration?

- ☐ Not yet issued for public review.  
☐ In public review.  
☐ Adopted.

Name of lead agency \_\_\_\_\_

If an environmental impact report or a negative declaration is in public review or has been adopted, enclose the document with this NOI.

Will the discharge occur in, or in immediate proximity to, an area covered by a U.S. Fish and Wildlife Service (USFWS) Habitat Conservation Plan (HCP) or a Department of Fish and Game Natural Community Conservation Plan (NCCP)?

☐ YES ☐ NO

Will the discharge occur in, or in immediate proximity to, any habitat of a plant or animal species that has been classified by the Department of Fish and Game, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service as candidate, sensitive, endangered, rare, or threatened?

☐ YES ☐ NO

Will the discharge occur in, or in immediate proximity to, a significant historical or archeological resource, a unique paleontological resource or site, a unique geologic feature, or any human remains?

☐ YES ☐ NO

Will the discharge occur in, or in immediate proximity to, land under existing zoning for agricultural use or under a Williamson Act contract?

☐ YES ☐ NO

Will the discharge, as mitigated, cause any other significant adverse environmental impact?

☐ YES ☐ NO

**If you answered "yes" to any of the previous five questions, provide a detailed explanation demonstrating why the discharge is eligible to be enrolled under the General WDRs.**

VII. **Additional Submittals.** In accordance with provisions of State Water Resources Control Board (SWRCB) Water Quality Order No. 2004-0004 DWQ, please submit the following with this NOI to the appropriate Regional Water Quality Control Board or, for multi-Region projects, to the SWRCB.

- a. A fee pursuant to California Code of Regulations, Title 23 Section 2200.
- b. A Mitigation Plan, as described in the General WDRs.

VIII. CERTIFICATION

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"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of these General WDRs will be complied with."

Signature of Discharger	Title
Printed or Typed Name	Date



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ATTACHMENT 2  
TO WQ ORDER NO. 2004-0004-DWQ

**STATE WATER RESOURCES CONTROL BOARD**

**NOTICE OF TERMINATION  
OF DREDGED OR FILL DISCHARGES  
TO WATERS DEEMED BY THE U.S. ARMY CORPS OF ENGINEERS  
TO BE OUTSIDE OF FEDERAL JURISDICTION  
(WATER QUALITY ORDER NO. 2004-0004 DWQ)**

WDID # _____
--------------

**III. Owner of the Land**

Name				
Mailing Address				
City	County	State	Zip	Phone
Contact Person				

**III. Discharger (if different from owner of the land)**

Name				
Mailing Address				
City	County	State	Zip	Phone
Contact Person				

**III. Site Location**

Street (including address, if any)
Nearest Cross Street(s)
County:

**IV. Reason For Notice of Termination**

Indicate why the discharge should no longer be regulated under WQ Order No. 2004-0004-DWQ.
--

**STATE USE ONLY**

WDID:	Regional Board Office:	Date NOT Received:	Date NOT Processed:
		_____	_____
		_____	_____

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**V. CERTIFICATION**

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Signature of Discharger	Title
Printed or Typed Name	Date



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EXHIBIT R

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STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 2008-0026

DEVELOPMENT OF A POLICY TO PROTECT WETLANDS AND RIPARIAN AREAS  
IN ORDER TO RESTORE AND MAINTAIN THE WATER QUALITY AND BENEFICIAL USES  
OF THE WATERS OF THE STATE

WHEREAS:

1. Over 85 percent of historic wetland and riparian acreage in California has been lost according to published research estimates. Remaining resources continue to be vulnerable to future impacts from projected population growth, land development, sea level rise, and climate change in California.
2. Although physically occupying only a small percentage of California watersheds, wetlands and riparian areas provide valuable water quality functions such as flood control, pollutant filtration, water supply and replenishment, recreation, and habitat for a wide variety of plants and animals. Wetlands and riparian areas act to promote the health and existence of other vital natural resources, and provide significant economic benefits to California.
3. The value of wetlands and riparian areas has been recognized in California through the enactment of the California Wetlands Conservation Policy that sets a goal to "ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property" (Executive Order W-59-93).
4. The State has relied primarily on requirements of the Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.) (Clean Water Act) to protect wetlands and riparian areas for water quality goals.
5. Recent U.S. Supreme Court rulings (*Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 2001 and *Rapanos v. United States*, 2006) have reduced the jurisdiction of the Clean Water Act over wetland and riparian areas by limiting the definition of "waters of the United States." These decisions necessitate the use of California's independent authorities under the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) to protect these vital resources.
6. In 2003, the State Water Resources Control Board (State Water Board) issued a report to the Legislature titled, *Regulatory Steps Needed to Protect and Conserve Wetlands Not Subject to the Clean Water Act (Supplemental Report of the 2002 Budget Act Item 3940-001-0001)*. This report reviewed the critical role that wetlands and riparian areas have in protecting the beneficial uses of waters throughout the State. Consistent with the State Water Board and Regional Water Quality Control Boards' (Regional Water Boards) (collectively California Water Boards) 2001 Watershed Management Initiative, this report further recognizes that a watershed-level approach is needed to protect wetlands and riparian areas and their associated water quality functions.



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7. In 2004, State Water Board staff initiated a Workplan upon the California Environmental Protection Agency's request (*Workplan: Filling the Gaps in Wetland Protection*) to address the waters of the State that are no longer protected under the Clean Water Act. This *Workplan* specified the need to adopt a State wetland definition to "provide a standard metric to help determine compensatory mitigation requirements and compliance with [the] 'no net loss' policy [Executive Order W-59-93]." In addition, the *Workplan* included developing a statewide policy for wetland protection "at least as protective as the federal requirements." To immediately address part of "the gap," the State Water Board adopted general waste discharge requirements for minor discharges to non-federal waters ([Water Quality Order 2004-0004 May 4, 2004](#)).
8. California continues to lose "functional wetlands" at an increasing rate despite the efforts of the State's 401 Water Quality Certification Program. This fact is documented in a State Water Board research study contracted with UCLA titled *An Evaluation of Compensatory Mitigation Projects Permitted Under Clean Water Act Section 401 by The California State Water Resources Control Board, 1991-2002*. The current implementation of the 401 Water Quality Certification Program does not adequately protect functional wetlands. Unfortunately, compliance with regulatory requirements has not resulted in resource protection. Clearly, there is a need for a strong statewide policy that provides both guidance on the protection and restoration of wetlands, as well as assessing and measuring net change in wetland functions. . The purpose of the proposed Policy is to ensure no further net loss and ultimate long-term gain in the quantity and quality of "functional" wetlands and riparian areas within the State. Successful implementation of the proposed Policy will be assessed via measurable environmental outcomes.
9. In 2007, State Water Board staff completed public scoping meetings on wetland and riparian area policy alternatives and considered comments received in accordance with the California Environmental Quality Act.

THEREFORE BE IT RESOLVED THAT:

1. The State Water Board recognizes the beneficial services of wetlands and riparian areas for people and wildlife in protecting and improving water quality, providing fish and wildlife habitat including unique plant communities (i.e., wetland and riparian vegetation), storing floodwaters, maintaining surface water flows in dry periods, and other valuable functions. California has a rich ecological diversity, therefore, the State Water Board further recognizes that watershed focused planning is the most effective strategy for maintaining and enhancing these functions.
2. The State Water Board will take action to ensure the protection of the vital beneficial services provided by wetlands and riparian areas through the development of a statewide policy to protect wetlands and riparian areas (Policy) that is watershed-based.
3. The Development Team, as defined below, will examine the environmental issues, evaluate the relevant alternatives, and make recommendations regarding the Policy. To ensure a comprehensive scope, the staff is directed to consider additional alternatives and recommendations other than those outlined in the 2004 *Workplan*.
4. In recognition that successful Policy implementation will require a supporting level of internal program infrastructure, major policy areas should be addressed in a step-wise fashion and implemented in phases to allow for commensurate program development. The Policy shall

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- support efforts to collect wetland data to monitor progress towards statewide wetland protection and to evaluate the level of program resources needed, including staffing, to undertake the next phases.
5. (a) The State Water Board staff is directed to develop the Policy using a collaborative process that involves the Regional Water Boards and bring that Policy to the State Water Board for consideration. A California Water Board development team (Development Team) will be formed for the Policy. The Development Team will consider and utilize relevant plans, policies, and technical documents already adopted or being developed by the Regional Water Boards, including the Stream and Wetland Systems Protection Policy Basin Plan Amendment being prepared by Regions 1 and 2.
  - (b) The Development Team will coordinate with other State and federal agencies and interested stakeholders to ensure a high degree of public involvement and agency coordination throughout the Policy development process.
  - (c) A charter will be developed by the Development Team defining the Development Team's purpose, responsibilities, goals and objectives, operating procedures, and timelines. The charter will identify the relationship of the Development Team to the water boards, other public agencies, and stakeholders. In July 2008, the Development Team will report back to the State Water Board on the proposed charter, before adoption by the Development Team.
  - (d) The State Water Board will review the Development Team's progress in July 2008, and periodically thereafter to provide oversight guidance as needed.
  - (e) The Policy, as well as the work of the Development Team, will inform and shape proposed Regional Basin Plan amendments. At a minimum for the proposed Regional Basin Plan amendments, this would include a review following the completion of the peer review process, and also a review within the public comment period prior to adoption hearings by the Regional Water Boards.
  6. The Development Team will develop the Policy in three phases:  
Phase 1 – establish a Policy to protect wetlands from dredge and fill activities. The Development Team is directed to develop and bring forward for State Water Board consideration: (a) a wetland definition that would reliably define the diverse array of California wetlands based on the United States Army Corps of Engineers' wetland delineation methods to the extent feasible, (b) a wetland regulatory mechanism based on the 404 (b)(1) guidelines (40 C.F.R. parts 230-233) that includes a watershed focus, and (c) an assessment method for collecting wetland data to monitor progress toward wetland protection and to evaluate program development.  
Phase 2 – expand the scope of the Policy to protect wetlands from all other activities impacting water quality. The Development Team is directed to develop and bring forward for State Water Board consideration: (a) new beneficial use definitions, (b) water quality objectives, and (c) a program of implementation to achieve the water quality objectives, as necessary, to protect wetland-related functions.



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Phase 3 – extend the Policy's protection to riparian areas. The Development Team is directed to develop, and bring forward for State Water Board consideration: (a) new beneficial use definitions, (b) water quality objectives, and (c) a program of implementation to achieve the water quality objectives, as necessary, to protect riparian area-related functions.

7. The Development Team will begin Phase 1 immediately with a target completion date of mid-2009. Work on Phases 2 and 3 will proceed in parallel or in sequence as appropriate and will follow in subsequent years. Phase 1 work products will include:
  - a. An overarching policy statement establishing the intent of the California Water Boards to protect all waters of the State using a watershed approach in coordination with the Regional Water Boards; other local, State, and federal agencies; and local watershed and stakeholder groups and forums;
  - b. A wetland definition that would reliably define the diverse array of California wetlands based on the United States Army Corps of Engineers' wetland delineation methods to the extent feasible;
  - c. A framework for protecting water quality and beneficial uses that relies on sequential avoidance, minimization, and mitigation of impacts; and,
  - d. Guidance on tracking wetland condition and function to monitor wetland protection and other required data to evaluate necessary program development resources.
8. At all phases, the Policy is intended to complement and support Region-specific plans and policies to protect the functionality of wetlands and riparian areas and should recognize the Regional Water Boards' essential role in implementing and informing statewide policy.

**CERTIFICATION**


The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on April 15, 2008.

AYE: Chair Tam M. Doduc  
Vice Chair Gary Wolff, P.E., Ph.D  
Charles R. Hoppin  
Frances Spivy-Weber

NAY: None

ABSENT: Arthur G. Baggett, Jr.

ABSTAIN: None

  
\_\_\_\_\_  
Jeanine Townsend  
Clerk to the Board

**O-MBA20L7**

**EXHIBIT S**



O-MBA20L7



2 November 2015

Mr. Tom Lippe, Esq.  
Law Offices of Thomas N. Lippe APC  
201 Mission Street, 12th Floor  
San Francisco, CA 94105

Project: Warriors Event Center in Mission Bay  
FHA # 648-02

Dear Mr. Lippe,

You requested that I review the analysis of this Project's noise impacts in the Responses to Comments on the Draft Subsequent EIR dated 5 June 2015, Chapters 12 & 13. This letter report summarizes my comments and responds to your specific questions.

**Does the DSEIR use a reliable methodology to determine the significance of Impact NO-1 and Impact NO-5?**

Impact NO-1 is "Construction of the proposed project would not cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. (Less than Significant)." (DSEIR, pp. 5.3-20 to 5.3-23.)

Impact NO-5 is "Operation of the proposed project would cause a substantial permanent increase in ambient noise levels in the project vicinity. (Significant and Unavoidable with Mitigation)." (DSEIR, pp. 5.3-32 to 5.3-39.)

Frank Hubach Associates, Inc 4905 Central Ave, Ste 100  
Richmond, CA 94804  
Acoustics and Vibration Phone 510-528-1505  
Engineering Consultants Fax 510-528-1506  
Email: info@fha-eng.com

O-MBA20L7



Warriors Event Center in Mission Bay  
Noise Impact  
2 November 2015

In my opinion the DSEIR does not use a reliable methodology to determine whether Impact NO-1 or NO-5 is significant.

For Impact NO-1 and Impact NO-5, the DSEIR uses a threshold of significance of the "ambient plus increment" type. For Impact No-1, the "ambient plus increment" threshold of significance is whether the "the increase in noise levels over existing conditions would be less than 10 dBA." (DSEIR, p. 5.3-23.)

This type of threshold discounts the significance or severity of pre-existing noise levels and treats them as if they are irrelevant to whether the incremental change caused by the Project is "significant." Refer to additional detailed information in my 22 July 2015 report.

**12.2.1 Generator Relocation**

*"Because the generators would no longer be in a sub-grade location with the project refinements, the potential noise impacts of the routine generator maintenance operations at the at- or above-grade locations were assessed quantitatively, as described below." (pg 12-2)*

The generator relocation does not specifically address (in terms of decibels) the potential impact to pedestrians, bicyclists or motorists when in close proximity to the generators. Only the two large 150 kW generators are fitted with noise control treatments which will have some localized benefit. This is potentially significant impact.

**12.2.3 Transportation Improvements**

*"Similarly, the temporary impacts of construction noise would be limited to standard construction equipment such as a backhoe and jackhammer, which would not be expected to result in a significant construction noise impact, as these equipment types comply with the construction noise limits of the Sections 2907(a) and (b) of the Police Code, as discussed on page 5.3-14 of the SEIR and would occur in an area with elevated ambient background noise based on modeled baseline traffic volumes derived from the San Francisco County Transportation Authority travel demand model." (pg 12-11)*

This work along King Street has an unspecified noise impact that is in my opinion potentially significant.

2

Frank Hubach Associates, Inc

510-528-1505

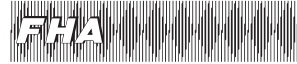
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[LC-NOI-1]

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[LC-NOI-2]



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Warriors Event Center in Mission Bay  
Noise Impact  
2 November 2015



#### 12.3.2 Other Construction Refinements

*"Refinements to the proposed construction techniques that were described in the Draft SEIR include: addition of on-site soil treatment, possible use of dewatering pump generators, and removal of rapid impact compaction equipment."* (pg 12-16)

The dewatering pump generators added do not specifically address (in terms of decibels) the potential impact to pedestrians, bicyclists or motorists when in close proximity to the generators. This is potentially significant impact.

*"The pug mill would be enclosed within a large canvas tent to control dust and noise generated by the plant."* (pg 12-17)

It is unlikely the tent will attenuate any pug mill noise. This is potentially significant impact.

#### 12.4 Muni UCSF/Mission Bay Station Variant

*"Assuming use of a backhoe, jack hammer and truck crane, construction activities for the demolition of the existing northbound platform would generate noise levels of 79.4 dBA, Leq at the nearest receptor (Hearst Tower), 75 feet away, which would result in a less than 10 dBA increase over existing ambient noise levels of 71.2 dBA, Leq."* (pg 12-28)

This is an 8.2 dB increase above ambient and in my opinion significant.

Using these "ambient plus increment" thresholds where existing noise levels are already too high, as shown in Tables 5.3-9 and 5.3-10 (DSEIR, pp. 5.3-34, 36), disregards the fact that the Project will make already severe conditions worse. In addition, using these "ambient plus increment" thresholds for operational noise results in an unsustainable gradual increase in ambient noise. It is a formula for ever-increasing noise levels because each new project establishes a new, higher, baseline; then when the next project is approved, the incremental change will be added to the new baseline.

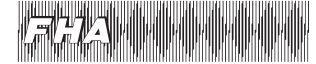
Therefore, the operational impact assessment needs to be redone using valid, science-based thresholds that relate to actual human health and welfare effects of noise.

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[LC-NOI-2]  
cont.

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[LC-NOI-1]

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Warriors Event Center in Mission Bay  
Noise Impact  
2 November 2015



In my opinion, is the Project will cause a significant increase in Impact NO-1 and Impact NO-5 above levels existing without the project.

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[LC-NOI-1]  
cont.

Very truly yours,

Frank J. Hubach  
President

FJH:fjh

J:\64802\AcousticReport4.wpd



O-MBA21L8

From: Tom Lippe [<mailto:lippelaw@sonic.net>]  
Sent: Tuesday, November 03, 2015 7:40 AM  
To: Guerra, Claudia (CII); Warriors, PLN (CPC)  
Cc: Kelly Marie Perry; Susan Brandt-Hawley; Osha Meserve; Patrick Soluri; Josh Schiller; Demetri Blaisdell  
Subject: Re: Comments on Final SEIR re Warriors Arena Project

Dear Ms Bohee and Mr. Bollinger:

Attached hereto is Exhibit F (a report by Dan Smith) to my November 2, 2015, comment letter on the Final Environmental Impact Report (FSEIR) and Responses to Comments (RTC) for this Project delivered by email earlier this morning.

Also, please consider this email a comment on the process the OCII has chosen to follow for purposes of certifying the FSEIR.

The OCII's EIR preparation team includes 48 people, including 15 from several City departments and another 33 from six different consulting firms. (DSEIR, p. 9-1.) OCII's team spent 3 months preparing responses to comments and conducting new environmental analysis for changes to the Project, including a new Project Variant, ultimately publishing 2,624 pages of new analysis and data.

Yet the OCII gave the public only 11 days to review the FSEIR/RTC before meeting to certify it. Then, the October 23, 2015, notice of publication of the Response to Comments informed the public they would have no opportunity to comment on the FSEIR/RTC. But the OCII hearing agenda for November 3, 2015 published on October 29, 2015, reversed course and suggested that public comment on the FSEIR/RTC would be heard at the hearing.

As a result, the Mission Bay Alliance's legal team, with its consultants, has not had adequate time to review and comment on the FSEIR/RTC, depriving the Alliance of a fair trial on the Project approvals, including certification of the SEIR, per Code of Civil Procedure section 1094.5(b).

Moreover, the Mission Bay Alliance's legal team has submitted and will submit a large volume of new comments for consideration by the Commission. Since the members of the Commission cannot be expected to review this volume of new information before the close of today's hearing, the Alliance requests that Commission continue the hearing for at least three weeks to: (1) provide a fair trial on the Project approvals, (2) allow the Alliance to complete its review and comment on the FSEIR/RTC, and (3) allow the Commission to review the comments submitted for today's hearing.

Finally, I note that the vast majority of the volume of documents submitted for today's hearing consists of the documentary history of the City's violations of its NPDES permits (see Exhibit M). This submission reflects the fact that my July 24, 2015 comment letter regarding hydrology, water quality and biological impacts observed that the DSEIR's heavy reliance on City compliance with its NPDES permit to ensure the Project's combined stormwater and sewage impacts are less than significant is an unsupported assumption. My previous comment requested that the City support this assumption with evidence. The RTC fails to do so. Therefore, the Alliance gathered that evidence (contained in Exhibit M), and it shows the City has a continuous pattern of violating its NPDES permits.

Tom Lippe  
Law Offices of Thomas N. Lippe APC

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[LC-GEN-4]

2  
[LC-HYD-1]

O-MBA21L8

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CONFIDENTIALITY NOTE: This and any accompanying pages contain information from Law Offices of Thomas N. Lippe APC which may be confidential and/or legally privileged. The information is intended to be for the sole use of the individual or entity named above. Unauthorized interception, review, use or disclosure is prohibited and may violate applicable laws including the Electronic Communications Privacy Act, 18 U.S.C. §§ 2510-2521. If you are not the intended recipient please contact the sender and destroy all copies of the communication.

On 11/3/2015 5:58 AM, Kelly Marie Perry wrote:

- > Dear Ms Bohee, Mr. Bollinger -
- >
- > Attached, in .pdf format, please find today's correspondence with
- > exhibits.
- >
- > Due to file size, I will send a total of three (3) emails with all
- > documents attached, with the exception of Exhibits F that will follow
- > under separate cover.
- >
- > Also, please note the Exhibit M is very large so this Exhibit is being
- > hand-delivered in hard-copy in binders and on disc to the OCII hearing
- > in City Hall today. I am however attaching Exhibit M's table that
- > list all the exhibits.
- >
- > Thank you for your attention to this matter.
- >
- > Kellu
- >
- >



O-MBA22B4

**Brandt-Hawley Law Group**

Chauvet House • PO Box 1659  
Glen Ellen, California 95442  
707.938.3900 • fax 707.938.3200  
preservationlawyers.com

November 3, 2015

Tiffany Bohee, OCII Executive Director  
Brett Bollinger, EIR Coordinator  
via email [warriors@sfgov.org](mailto:warriors@sfgov.org)

Subject: Comments on the Final Subsequent EIR  
Warriors Event Center & Mixed Use Development

Dear Director Bohee and Mr. Bollinger:

The Mission Bay Alliance is concerned about many ongoing defects in the CEQA process for the proposed Warriors Event Center. These include violations of CEQA's procedural mandates, material inadequacies of the Subsequent EIR, and OCII's unsupported substantive findings. In the minimal 11-day time frame allotted for public review of the new and voluminous OCII CEQA documents, including the Final SEIR, technical reports, and proposed findings, my co-counsel and I have done our best to bring these issues to the attention of the Commission on behalf of the Alliance.

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[LC-ERP-1]

**1. The Final SEIR Must Be Certified by the Planning Commission**

Approval of a CEQA document must comply with local ordinances as well as with California environmental law. (*E.g., Citizens for the Restoration of L Street v. City of Fresno* (2014) 229 Cal.App.4th 340.) While OCII is a separate legal entity with discrete responsibilities under redevelopment law, it is under the legislative control of the Board of Supervisors per state statutes and local ordinances. For CEQA purposes, OCII's duties align with those of the City of San Francisco. The Planning Department was thus identified as a co-lead agency in the CEQA process for the 1998 Mission Bay South Redevelopment Plan.

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[LC-ERP-5]

CEQA is a process-driven statute that must be followed to the letter. The Event Center's Subsequent EIR reflects its preparation by the City Planning Department and the City will consider many of the Event Center's required approvals. If the current SEIR is certified, the Board of Supervisors will decide administrative appeals of its inadequacy as the elected decision-making body. The Planning Code requires initial consideration of the certification of the Final SEIR to be conducted by the San Francisco Planning Commission, and that must happen before its consideration by OCII. The current process violates CEQA.

O-MBA22B4

Warriors Event Center Final EIR and Approval  
November 3, 2015  
Page 2 of 4

**2. The Final SEIR Responses to Comments is Inadequate**

Every lead agency is required to provide a "good faith, reasoned analysis" in responses to comments on the EIR; "[c]onclusory statements unsupported by factual information will not suffice." (Guidelines, § 15088, subd.(b); see *Laurel Heights Improvement Association. v. Regents of the University of California* (1993) 6 Cal.4th 1112, p. 1124.) When a comment raises a significant environmental issue, the EIR must respond in detail, providing reasons why the comment was not accepted.

3  
[LC-ERP-1]

*Sutter Sensible Planning, Inc. v. Board of Supervisors* (1981) 122 Cal.App.3d 813 explains that detailed EIR responses "insure the integrity of the process of decision by precluding stubborn problems or serious criticism from being swept under the rug." (*Id.*, p. 820.) *Flanders Foundation v. City of Carmel-by-the Sea* (2012) 202 Cal.App.4th 603 ordered issuance of a writ when an EIR failed to respond to a comment proposing a reduced-size parcel for an environmentally damaging project. (*Id.*, pp. 616-617.)

**a. Land Use.** The Alliance submitted a letter from the undersigned counsel on November 2, 2015, reiterating in detail how the proposed Event Center's sports arena is not consistent with any of the principal or secondary uses allowed by the Mission Bay South Redevelopment Plan, including the secondary uses now being invoked by OCII for the first time in the Final SEIR. That letter is here incorporated by reference. The Draft SEIR did not address land use issues because the Initial Study and Notice of Preparation posited that all of the uses proposed by the Event Center were encompassed within the 'Nighttime Entertainment' secondary use that had been analyzed in the 1998 Mission Bay EIR.

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[LC-PP-1]

That EIR's refusal to analyze the project's land use inconsistencies has not been cured by the Responses to Comments, which now fails and/or inaccurately responds to the Alliance's DSEIR comments about secondary use categories, the Event Center's conflicts with Mission Bay South design criteria, including Vara Blocks, and impacts to community character. The inadequate Responses to Comments as to these land use inconsistencies constitutes a separate ground of legal error.

The SEIR should be revised and recirculated after amendment of the Mission Bay South Redevelopment Plan to provide for a consistent principal or secondary use.

**b. Alternatives.** The Alliance commented on the SEIR's inadequate analysis of the 'no project' alternative and failure to include a potentially-feasible off-site alternative. Following the SEIR comment period, the Alliance informed OCII that it had located a

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[LC-ALT-1]



# O-MBA22B4

Warriors Event Center Final EIR and Approval  
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feasible off-site alternative that met project objectives and reduced impacts, and requested its consideration. This should still happen, and the site at Pier 80 should be considered in a revised and recirculated EIR.

In response, the Final SEIR offers rote statements like "CEQA does not require analysis of 'every imaginable alternative' but rather it gives agencies the flexibility to eliminate certain alternatives that either do not reduce environmental impacts or do not further the project's main objectives." The Alliance agrees, but the statement neither addresses nor cures this particular EIR's failure to analyze the 'no project' alternative or a potentially-feasible off-site location.

As to the 'no project' alternative, the Alliance finds the Responses to Comments again inadequate. Among other things, the responses both dismiss and acknowledge that the UCSF-owned Block 33 is eligible for a tower. That opportunity remains relevant to the discussion as it impacts the extent of reasonably foreseeable development at the Event Center project site if the project does not proceed. The EIR responses also continue to overestimate the traffic impacts of 'no project' by speculative assumptions as to the parking likely to be provided by developers for proposed retail uses.

The EIR's refusal to consider a potentially-feasible off-site alternative violates CEQA, which repeatedly confirms that consideration of alternatives is the key to reducing project impacts while accomplishing objectives. The SEIR responses to this issue treat CEQA like a game, tangentially acknowledging that the initial site at Piers 30-32 was too expensive and would require a public vote for a site so unpopular that the Warriors abandoned it, but then repeating over and over that the site is at least "potentially feasible for purposes of this SEIR." (Responses, 13.24-8.) In other words, the rejected site is not feasible in the real world, but can somehow be considered adequate to comply with CEQA under the substantial evidence standard of review. Not so, both as to the site and standard of review. The infeasibility of the site is reflected in the CEQA findings that dismiss it, citing its uncertain approval and significantly more severe impacts than the Mission Bay project.

**c. Cultural Resources.** In response to the Alliance's references to new information regarding archaeological impacts and inadequate studies, the SEIR provides a conclusory reference to new archaeological study in October 2015 that resolves concerns. As with the other new studies provided within the 11-day review period for the SEIR Responses to Comments, the public has not had sufficient opportunity to review the technical information. Further, the Responses to Comments is insufficient as an informational document because it fails to provide analysis regarding its conclusory

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[LC-ALT-1]  
cont.

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[LC-ALT-2]

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[LC-ALT-3]

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[LC-CULT-1]

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dismissal of archaeological concerns based on the referenced new studies. There is thus insufficient basis for findings that archaeological impacts are infeasible.

## 3. The Proposed Findings on Alternatives are Inadequate

The SEIR does not analyze the alternate site proposed by the Alliance near Pier 80, nor circulate that analysis for public comment and so has no basis to make conclusory findings rejecting the alternative. The reasons provided in OCII's proposed findings are unsupported and inadequate. The site is three times as large as would be required for the Event Center project and need not utilize any of the City-owned property nor any particular configuration of the privately-owned lots should there be an unwilling seller. There is no evidence provided that the site could not be acquired within a reasonable time period.

Further, case law confirms that potential zoning adjustments are not grounds for infeasibility, as they are within the City's power. It is self-evident that the claimed limits to transportation services under current schedules are easily remedied, and the findings do not provide any studies to back up conclusory statements regarding traffic, air quality, hydrology, or water quality impacts. Again, since only a third of the site is needed to accommodate the event center, all of the impacts (if shown to have concern after sufficient technical review) can be avoided or mitigated. As stated above and in the Alliance letter proposing this site for consideration as an alternative, the EIR is inadequate for failing to consider an off-site alternative and must be revised and recirculated to do so before any findings of infeasibility can be made. The site near Pier 80 is suggested by the Alliance as potentially feasible and deserving of study.

Thank you for your attention.

Sincerely yours,  
  
Susan Brandt-Hawley

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[LC-CULT-1]  
cont.

9  
[LC-ERP-3]





tel: 916.455.7300 • fax: 916.244.7300  
1010 F Street, Suite 100 • Sacramento, CA 95814

O-MBA23S7

November 3, 2015

**SENT VIA EMAIL (MTABoard@sfmta.com)**

Tom Nolan, Chairman  
San Francisco Municipal Transportation Agency  
Board of Directors  
1 South Van Ness Avenue, 7th Floor  
San Francisco, CA 94103

**RE: Comments on November 3, 2015 Agenda Item No. 13 re: Warriors  
Event Center and Mixed-Use Development Project at Mission Bay  
Blocks 29-32**

Dear Chairman Nolan and Members of the Board:

This firm represents the Mission Bay Alliance (the "Alliance") with respect to the Warriors Event Center Project ("Project"). These comments address the Final Subsequent Environmental Impact Report for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("FSEIR") as well as the SFMTA's consideration and approval of the Project itself.

The Project's FSEIR is defective as an informational document with respect to the analysis and public disclosure of impacts and mitigation measures regarding transportation. Impermissibly buried within the "project description" are *de facto* mitigation measures for the Project's transportation impacts. These mitigation measures include both one-time capital improvements and ongoing expenditures as set forth in the Transportation Management Plan ("TMP") and Transit Service Plan ("TSP"). The City's strategy of conflating analysis of the Project's design features and mitigation measures violates CEQA. (See, e.g., *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645.) The prejudice associated with the City's strategy, other than simply obscuring the City's massive public subsidy for the Project, is that the EIR "fail[s] to consider whether other possible mitigation measures would be more effective." (*Id.* at 657.)

The City also appears to rely on the incorporation of these plans into the project description in order to conceal from the public the City's failure to require full mitigation of the Project's impacts from the applicant. It is a bedrock principle of the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq. ("CEQA"), 21002; see also CEQA Guidelines, § 15126.4) that development projects should mitigate their

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[LC-PD-1]

Tom Nolan  
SFMTA, Board of Directors  
November 3, 2015  
Page 2 of 4

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environmental impacts to the extent feasible. With respect to the Project's transportation impacts, however, the City deviates from this principle and instead adopts an odd, *ad hoc* "fair share" fee program to supposedly mitigate project-level impacts. (*Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173 (*Anderson First*).) As a threshold matter, the SEIR never clearly discloses to the public that it essentially relies upon "fair share" payments from the Project in order to mitigate its project-level transportation impacts, which renders the SEIR defective as an informational document. Had the SEIR done so, it would have been apparent that the SEIR failed to disclose necessary information about this fair share program.

The payment of a "fair share" impact fees may constitute adequate mitigation if they "are part of a reasonable plan of actual mitigation that the relevant agency commits itself to implementing." (*Id.* at 1188-89.) The *Anderson First* decision identified the information that is required in an EIR to establish the adequacy of a "fair share" mitigation measure, which includes the following:

- (i) An identification of the required improvement;
- (ii) An estimate of the cost of the required improvement;
- (iii) Sufficient information to determine how much the project would pay towards the improvement; and
- (iv) The fees must be part of a reasonable, enforceable plan or program sufficiently tied to the actual mitigation of the impacts at issue.

(*Ibid.*)

The SEIR fails to provide this necessary information. While the SEIR mentions the TMP and TSP as addressing the Project's transportation impacts, the SEIR fails to identify the total costs of the improvements, the Project's allocated contribution, and the enforceable plan or program to contribute the Project's "fair share."

Although not included in the Project's CEQA documentation, some of this necessary information is contained in the Event Center Expenditure Plan, which the SFMTA is scheduled to review and approve on November 3, 2015 ("Expenditure Plan"). (See Enclosure 3 to Staff Report.) The Expenditure Plan reveals the legal deficiencies in the City's mitigation strategy for the Project's transportation impacts. Considering only one-time "capital uses" and "capital uses allocation to project," (i.e., excluding ongoing costs to mitigate the Project's transportation impacts), it reveals that the total cost of these improvements is \$64,663,474, and the Project's fair share allocation is \$61,898,909. Of the amount "allocated" to the Project, however, only \$27,390,335 will actually be paid by the project applicant, over the course of several years with the City fronting the funds for the improvements from the General Fund. Thus, the Project is contributing less than 50

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percent of its allocated fair share contribution that is necessary to mitigate the Project's transportation impacts. To make matters worse, only \$19,434,536 is coming from an existing and enforceable impact fee program. The balance of the project applicant's contribution, approximately \$7,955,799, is the result of the City's planned redirection of General Fund revenues.

In other words, rather than simply require the project applicant to be responsible for the capital improvements needed to mitigate its project-level impacts, the City establishes a fair share fee program and then does not even require the applicant to pay the fair share fee – instead voluntarily giving up General Fund revenues that are intended to support other Citywide programs and services. By cloaking this deficient mitigation strategy as a design feature of the Project, the City never engages in a meaningful analysis of potentially feasible mitigation measures involving the project applicant actually mitigating these project-level impacts.

A similar deficiency applies to the Project's ongoing costs to mitigate its project-level transportation impacts. Total ongoing annual costs to mitigate the Project's transportation impacts are estimated at \$8,209,318 in FY18-18. Of this amount, \$2,773,110 in revenue is not paid from an enforceable impact fee program but rather redirected from the General Fund. What more, significant additional City revenues, which are not even generated by the Project but rather "allocated" to the Project from sources such as off-site parking and hotel tax, will be re-allocated to pay for the Project's ongoing mitigation for project-level transportation impacts. These reallocations of General Fund revenues cannot constitute an enforceable plan that is subject to future discretionary actions by the Board of Supervisors. Even the anticipated future adoption of the Mission Bay Transportation Improvement Fund ordinance is inadequate to ensure future reallocations of General Fund revenues because action by ordinance is cannot bind future Boards. (*McMahan v. City and County of San Francisco* (2005) 127 Cal.App.4th 1368.)

In short, the City fails without explanation to require the applicant to bear responsibility for fully mitigating its own project-level impacts. Instead, the City is setting up a flawed *de facto* fair share fee program to pay for this project-level mitigation, and redirecting revenues generated by the Project and elsewhere to cover the funding gap for these mitigation measures. This deficiency is nowhere disclosed to the public in the SEIR. The City may not rely on the preparation of various "plans" as a smokescreen to conceal from the public the Project's failure to mitigate its own project-level impacts and massive public subsidy needed to make up for that deficiency. The SEIR is misleading, and fails as an informational document with respect to mitigation for transportation impacts.

The City's action to mitigate the Project's transportation impacts is also an undisclosed public subsidy that triggers substantive and procedural mandates by the City

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before committing to such subsidy. The attached report by Dr. Jon Haveman explains that the redirection of General Fund and other revenues to mitigate the Project's impacts represents a loss of revenue to the City (see Exhibit 1), which in turn constitutes a public subsidy under California law. More specifically, these subsidies include committing to direct General Fund revenues to pay for light rail cars, construction of transportation improvements, public safety and traffic officers, etc., "allocating" parking/hotel tax revenues from other properties to pay these expenses.

Because the TMP and TSP are built into the project description, the City's approval of the Project commits the City to the subsidy as set forth in these plans, which is further reinforced by the City's approval of the Expenditure Plan. California law requires that the City must provide public notice and a public hearing, as well as detailed information about the purpose, nature, extent and effect of such subsidy, prior to making such a commitment. The City has failed to comply with these substantive and procedural mandates prior to approving this public subsidy for the Project.

\* \* \*

Please feel free to contact my office with any questions.

Very truly yours,

**SOLURI MESERVE**  
A Law Corporation

By:   
Patrick M. Soluri

PS/mre

Attachment: Exhibit 1, Report from Dr. Jon Haveman dated November 2, 2015

cc Board Members (via email):

Cheryl Brinkman, Vice-Chairman  
Gwyneth Borden  
Malcolm A. Heinicke  
Joél Ramos  
Cristina Rubke

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# **EXHIBIT 1**

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## **Warriors Stadium Economics: Uncertainty and Alternatives**

*Produced by:*  
**Marin Economic Consulting**

Jon Haveman, Principal  
415-336-5705  
Jon@MarinEconomicConsulting.com

November 2, 2015



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## Executive Summary

In order for the Golden State Warriors (GSW) to move to San Francisco, the City must make significant infrastructure investments in transit and commit to providing over \$6 million in support each year that the new arena operates. Although estimates of the costs to the City and estimates of City revenues exist, a cash flow analysis of this project has not been produced. Nor has the project been subject to a comparison with plausible alternatives. With a project of this magnitude and with the significant external costs imposed on San Francisco, it is deserving of such an analysis.

This report provides both a cash flow analysis of the arena development and a comparison with a plausible alternative. It also provides a discussion of some of the assumed revenues associated with the project. In particular, the assumptions regarding hotel/motel tax revenues and parking taxes are optimistic. The reality could be millions of dollars less than expected.

Although the cash flow analysis suggests that the project will turn a surplus of revenue in the fourth year of arena operations, a comparison with an alternative development suggests that from a financial perspective the City could do much better. If a biotech facility were constructed in place of the arena, it is possible that City revenues over the course of 22 years (two years of construction and 20 years of operation) could be more than \$39.9 million higher in net present discounted value terms, or \$1.8 million per year over 22 years. This comparison is with a conservative investment. With a more aggressive development option, the net present discounted value of revenues could be as much as \$150 million higher, or nearly \$7 million per year.

It is worth noting that the effective subsidy provided by the City of San Francisco to provide transit infrastructure and traffic mediation amounts to roughly \$150 million over the same 22 years, again in present discounted value terms. Were this subsidy not necessary, the Warriors development project would have a revenue impact to the City comparable to that of the more aggressive development option. Unfortunately, the Warriors development project requires the extensive subsidy while a biotechnology center would not. The biotechnology center, whether using conservative or aggressive assumptions, provides greater net revenues to the City of San Francisco than does the development including the Arena, by between \$1.8 and \$7 million per year.

These figures can be thought of as the amount that San Franciscans are paying to bring the Warriors to town. It is the amount of revenues that the City would forgo with the GSW project, relative to a plausible alternative. This is not to say that the project is a bad idea, but merely to point out what is being given up in order to accommodate the Warriors' move.



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### Key Findings

1. A cash flow analysis of the arena through the first twenty years of operation suggests net revenues for San Francisco of \$96 million. This is net of City expenses of approximately \$150 million during this time for transit and traffic mitigation.
2. This \$150 million of City spending in support of the Arena represents an implicit subsidy to the project. The City is funding transit infrastructure and the mitigation of traffic and transportation issues related to the functioning of the arena.
3. Although the Arena generates significant revenues for San Francisco, the City's costs will exceed its revenues from the development for at least the first three years of Arena operation, putting the taxpayers on the hook for the difference.
4. There are elements of the estimates of City revenues that are filled with uncertainty. In particular, the hotel/motel and parking revenues are highly speculative. This uncertainty may imply a broader burden for City taxpayers.
5. If hotel/motel revenues are overstated by half, which is possible, that would reduce City revenues by \$13.2 million in the first 20 years of Arena operation.
6. If an alternative development, one suited to biotechnology, were pursued, the City's net revenues would be nearly \$40 million higher and possibly as much as \$150 million higher over 22 years, or \$7 million per year.
7. An alternative development would have considerably larger economic impacts for the rest of the San Francisco Economy than would an arena, and would generate significantly more jobs, more than 2,000 on-site. Oracle Arena currently generates just 494 jobs.
8. An alternative development would generate as much as \$1 billion in direct economic activity on-site and perhaps as much as an additional \$1 billion in ancillary benefits to the broader San Francisco economy.
9. Forgoing the biotechnology development and pursuing the Arena reduces net revenues to the City of San Francisco by \$2 to \$7 million per year.

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### 1: Introduction

In 2017, the Golden State Warriors are expected to begin playing in San Francisco. Although this is an exciting development for the City of San Francisco, the economics of the Warriors presence in the City are unclear. There are likely to be significant revenue benefits for the City, but welcoming the Warriors will also involve significant infrastructure investments and ongoing expenses for the City and County of San Francisco. The net effects of these revenues and costs have not been adequately addressed.<sup>1</sup>

It is not clear whether San Francisco is importing a lucrative asset or a financial burden; that is, it is not clear whether the revenues associated with the Warriors play in San Francisco exceed the considerable upfront investments that the City must make. It is also an open question as to what exactly the City might be giving up in order to host the Warriors. The 12-acre parcel on which the arena is to be built is a valuable piece of real estate. In 2010, Salesforce paid \$278 million for a 14-acre site that includes the property in question. The property, located as it is across the street from UCSF and near a variety of biotech companies, seems a likely candidate for a biotech friendly building.<sup>2</sup> Were this to happen, it would yield significant benefits for the City. Whether or not these financial benefits exceed those associated with the Warriors is the subject of this report.

The report proceeds to review the costs and benefits associated with the Warriors, as they have been made public. This is followed by an estimate of the likely benefits of a biotech development occupying the same space. The benefits of the GSW plan are then examined from a perspective of robustness, whether or not they are likely to come to pass.

This report provides a cash flow analysis of the GSW project and compares that analysis with an alternative development that includes a biotechnology-oriented commercial structure in place of the arena. The GSW project is cash flow positive, but not until at least the fourth year of operations. Relative to the alternative development, even after 20 years of operating, the GSW project falls short in terms of net government revenues by approximately \$39.9 million, or \$1.8 million per year over 22 years. Alternative developments, with more aggressive assumptions, though still plausible, suggest that City revenues could increase by as much as \$151.6 million after 22 years, or \$6.9 million per year, without the need for heavy subsidization on the part of the City in the early years. From a purely financial perspective, the GSW project is a significant drain on City revenues relative to what alternative developments might yield.<sup>3</sup>

<sup>1</sup>Accepting the team also results in a significant revenue hole for the City of Oakland in that most events that currently take place at Oracle Arena are projected to move to the new arena.

<sup>2</sup>Its neighbors would include UCSF, Celgene Corporation, National Multiple Sclerosis Society, venBio, Nurix, Clovis Oncology, FibroGen, and Illumina, among others.

<sup>3</sup>The methodology used in this report is comparable to the methods and assumptions used by EPS in producing its fiscal impact analysis of the GSW arena. The Appendix provides a set of tables that indicate where common assumptions are used.



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### 2: Benefits and Costs of Hosting the Warriors

#### — Benefits/Revenues

As with any economic activity, there are certainly financial benefits for the City of San Francisco associated with hosting the Warriors. A report has been produced for the City of San Francisco that provides a fiscal analysis of the GSW project.<sup>4</sup> These benefits are derived from one-time revenues from the purchase of the land and arena construction and ongoing benefits associated with the events that the stadium hosts. The ongoing benefits also include revenues from commercial and retail activity built into the project, as well as parking revenues both on-site and off-site and off-site hotel and motel taxes. Table 1 provides a summary of an estimate of those benefits. Annually, stadium, retail, and office operations associated with the development are estimated to provide just over \$14.1 million in revenues to the City of San Francisco.

**Table 1. Summary of San Francisco Revenues from Ongoing Stadium Operations**  
(Thousands of 2014 dollars)

Annual Project-Generated Revenues	General Fund Revenues	Dedicated and Restricted Accounts	All Accounts
Revenues From on-Site Businesses	\$9,626 (84%)	\$1,883 (73%)	\$11,509 (82%)
Revenues From off-Site Hotels and Parking	\$1,887 (16%)	\$714 (27%)	\$2,601 (18%)
<b>Total Annual Project-Generated Revenues</b>	<b>\$11,513 (100%)</b>	<b>\$2,597 (100%)</b>	<b>\$14,110 (100%)</b>

Source: EPS and Keyser Marston Associates

Of these \$14.1 million in revenues, \$11.5 million are associated with the arena and on-site businesses. Although the majority of these revenues accrue to the general fund (\$9.6 million), nearly \$2 million goes directly to dedicated and restricted accounts. At the same time, nearly \$2.6 million are estimated to be from off-site sources, \$714 thousand of which are destined for dedicated and restricted accounts.

Table 2 provides estimates of detailed categories of revenues associated with ongoing economic activity once the development is completed. The largest categories of revenue include the stadium admission tax (\$4.3 million), gross receipts taxes (\$2.5 million) property taxes (\$2.5 million), including both general fund and MTA revenues), hotel/motel or transient occupancy taxes (\$1.7 million), and parking taxes (\$2.4 million). These five categories account for the vast majority of revenues associated with the development.

As mentioned, there will also be one-time revenues associated with the construction of the arena and the accompanying office and retail space (Table 3). These benefits amount to just over \$27.6 million, the vast majority of which is associated with the TIDF, or Transportation Impact Development

<sup>4</sup>Economic Planning Systems, *San Francisco Multi-Purpose Venue Project - Fiscal Impact Analysis: Revenues*, 9/25/15. (EPS)

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**Table 2. Details of San Francisco Revenues from Ongoing Stadium Operations**  
(2014 dollars)

Item	Amount
<b>Annual General Revenue</b>	
Property Tax (General Fund)	\$912,000
Property Tax in Lieu of VLF	\$868,000
Sales Tax	\$521,000
Hotel/Motel Tax (General Fund)	\$1,667,000
Parking Tax	\$482,000
Stadium Admission Tax	\$4,336,000
<b>Gross Receipts Tax</b>	
On-site	\$2,431,000
Off-site	\$42,000
Utility User Tax	\$254,000
Subtotal	\$11,513,000
<b>Annual Other Dedicated and Restricted Revenue</b>	
Special Fund Property Taxes (Children's, Library, and Open Space)	\$148,000
Public Safety Sales Tax	\$260,000
San Francisco County Transportation Authority Sales Tax	\$260,000
MTA Parking Tax	\$1,929,000
Subtotal	\$2,597,000
<b>Total Ongoing Revenues</b>	<b>\$14,110,000</b>

Source: EPS, 9/25/15, Table 1

Fee.<sup>5</sup> Another significant source of one-time revenue comes in the form of a Property Transfer Tax, \$4.2 million. Sales taxes and gross receipts taxes collected during construction add another \$5.4 million.

<sup>5</sup>[http://www.sf-planning.org/ftp/files/legislative\\_changes/new\\_code\\_summaries/120523\\_TIDF\\_Transportation\\_Impact\\_Development\\_Fee\\_Update.pdf](http://www.sf-planning.org/ftp/files/legislative_changes/new_code_summaries/120523_TIDF_Transportation_Impact_Development_Fee_Update.pdf) Medical and Health Services, and Retail/Entertainment economic activity categories was increased to \$13.30 per square foot, except that the rate for museums, a subcategory of CIE, are \$11.05 per square foot, a reduction from the current amount. The rate for the Management, Information and Professional Services (MIPS) and Visitor Services economic activity categories was increased to \$12.64 per square foot, and the rate for the Production/Distribution/Repair (PDR) category was reduced to \$6.80 per square foot.



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**Table 3. Summary of One-Time Revenues from Stadium Construction (2014 dollars)**

Item	Difference
<b>City Fees</b> (per gross building sq. ft.)	
Child Care	\$662,000
Transit Impact Development Fee	\$17,436,000
<b>Other One-Time Revenues</b>	
Sales Taxes During Construction	\$2,355,000
Gross Receipts Tax During Construction	\$2,953,000
Property Transfer Tax from Initial Land Sale	\$4,200,000
<b>Total One-Time Revenues</b>	\$27,605,000

Source: EPS, 9/25/15, Table 2. Revised by Marin Economic Consulting to reflect changes in Table A-6 of the EPS report.

### — Costs

As with the benefits, there are also one-time and ongoing costs. The one-time costs are primarily those associated with enhancing transportation infrastructure and amount to \$55.3 million.<sup>6</sup> These costs include Transit Investments (the purchase of light rail vehicles), the installation of crossovers, the construction of a new center boarding platform, power augments to idling event trains, traffic/signals engineering investments, and a Mariposa Street restriping study.

These expenses are spread out over a four-year period, with the vast majority of expenses occurring in the 2016-17 MTA fiscal year. A major expenditure on light rail vehicles is slated to take place in the 2017-18 FY, when the Event Center begins operating. The costs to MTA are heavily loaded in the early years of the project, before ongoing revenues have begun. Estimated one-time revenues will be available during this time to cover expenses, but they will fall short of the total by approximately \$30.2 million.<sup>7</sup> This difference will be covered by contributions from San Francisco's General Fund, whether all at once or through the financing of these expenditures that are net of revenues.

Table 4 provides the details of the City's estimates of ongoing expenses related to the operation of the Event Center. As of early October, estimated annual net ongoing costs associated with operations at the Event Center amount to \$6.2 million.<sup>8</sup> The vast majority, \$5.1 million, are associated transit costs. It is worth noting that this estimate has decreased by \$0.4 million between May and

<sup>6</sup>One-time costs are from SFMTA, **Capital and Operating Cost Estimates for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32**, 10/6/2015. Estimates are in 2014 dollars.

<sup>7</sup>This figure is the difference between \$57.8 million, the total estimated capital uses estimate (not just that allocated to the project), and the total one-time revenues from Table 3.

<sup>8</sup>Ibid. The word "net" is included because the City has estimated revenues from fares and parking from riders going to events at the arena. These revenues amount to approximately \$1.8 million, split roughly evenly between the two sources.

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October of this year. Other expenses are reported as they were presented in May, including nearly \$1 million in additional policing, and \$200 thousand in expenses incurred by DPW.

**Table 4. Ongoing Costs of the Arena (millions of 2014 dollars)**

Agency	May 18 Estimates	October 6 Revisions
SFMTA	\$5.5	\$5.1
SFPD	\$0.9	
DPW	\$0.2	
<b>Total</b>	\$6.6	\$6.2

Source: Golden State Warriors Arena: Event Management  
OCH Commission Presentation, May 18, 2015,  
and MTA, October 6, 2015.

### — Net Benefits

The project comes with considerable costs and benefits. Both upfront net costs and ongoing net revenues are considerable. It is our view that the original EPS report was incomplete in not considering the implications of the project over time. It failed to provide a comparison of overall costs and benefits associated with the GSW project. The reviewer, Keyser Marston Associates, appeared to agree with the EPS approach, saying that a "cash flow approach is appropriate to evaluate a multi-phase project, which does not apply to this project." We respectfully disagree. There are two stages to this project: first, the one-time infrastructure investments and revenue implications of construction and parcel purchase, and second, the ongoing costs and revenues. The project's benefits to the City come inherently in two stages. If both stages yielded a net benefit, the need for a cash flow approach would not be nearly as acute. As the first stage is significantly negative, the overall net benefits must be evaluated over time in order to properly evaluate the project.

This has not been publicly done. Here, we consider a 20-year period following the construction of the Event Center. Given that many of these revenues accrue many years in the future, it is necessary to discount them to today's dollars. The bottom line is the present discounted value of the net stream of revenues to the City of San Francisco.

Assumptions crucial to the present value discount calculation:

1. Discount Rate: 4.0%
2. Rate of inflation: 2.5% (2% for property taxes, as per Proposition 13)

Table 5 provides an estimate of the present discounted value of net revenues to the City of San Francisco, using estimates from the EPS report of September 25, 2015 and from documents from the City of San Francisco. Once the facility has been operating for 20 years, net revenues are ex-



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pected to be on the order of \$95.7 million, or approximately \$4.3 million per year over a 22-year period including two years of construction and 20 years of operation. This estimate includes the upfront expenses incurred by the City as well as the ongoing expenses associated with event traffic mitigation.

**Table 5. Net Benefits of GSW Event Center Project over 22 years (Millions of Present Discounted 2014 dollars)**

	Benefits	Costs	Net Benefits
One-Time	\$27.6	\$55.3	-\$27.7
Ongoing	\$221.4	\$98.0	\$123.4
<b>Total</b>	<b>\$249.1</b>	<b>\$153.3</b>	<b>\$95.7</b>

Source: Calculations by Marin Economic Consulting.

The project pencils out as estimated. This calculus, however, begs two important questions:

1. This is a 12-acre plot of land in the middle of a biotechnology hub. Are there better uses for this land from a revenue perspective?
2. Estimating the costs associated with event management is a more certain endeavor than estimating the benefits. How certain is it that the benefits will materialize?

For a project of this magnitude, it is vitally important to evaluate the potential for plausible alternatives to provide more benefits than the project in question. It is also important to consider robustness tests for the revenues in question. Neither of these issues has been publicly addressed. This report will present plausible revenues associated with an alternative development, a space designed with biotech in mind, and will discuss weak points in the revenue estimates presented above.

### 3: On the Economics of Biotech as an Alternative

When evaluating the benefits of an economic endeavor, an exploration of alternatives is vital to understanding the full implications of an investment. Suppose that instead of building a 750,000-square-foot arena, the amount of commercial space on the property were doubled. In this section, we consider such an investment. In this exercise, we follow as closely as possible the assumptions contained in the EPS estimate of revenues associated with the GSW project.

Important assumptions associated with this analysis include:

1. Instead of a 750,000-square-foot arena, a commercial facility is constructed that provides 522,000 square feet of space. This constitutes an exact doubling of the commercial space in the GSW plan. This alternative development is otherwise comparable to the Warriors plan, including the original commercial, retail, and parking structures.

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2. The space is designed with biotechnology in mind, which brings with it significant laboratory space. As such, it has a relatively high amount of space per worker associated with it: 250 square feet per employee.<sup>9</sup>
3. The transaction price for the land is unchanged at \$172.5 million.<sup>10</sup>
4. It is assumed that just two-thirds of the biotech revenues generated onsite are subject to gross receipts taxation in San Francisco.<sup>11</sup>
5. It is also assumed that a commercial facility would have ancillary benefits in terms of indirect and induced economic activity in San Francisco. Consistent with the EPS report, it is assumed that 90% of the ancillary output generated is subject to the Gross Receipts Tax.<sup>12</sup>

With the addition of these assumptions, an exercise analogous to that undertaken by EPS is performed for the new development. The new development includes the same retail revenues and costs, the same parking revenues, and essentially double the revenues associated with commercial development. Doubling the office space and maintaining other assets leads to an assessed value of at least \$605.5 million. This is considerably less than the project's assessed value with an arena.

Support for the notion that this construction is feasible comes not only from the 750,000-square-foot arena that the buildings will be replacing, but also from a similar planned development. UCSF was planning to build 500,000 square feet on four acres of blocks 33-34, right next to the site.<sup>13</sup> A new building of the size being considered is clearly feasible on the space currently to be occupied by the arena.

Table 5 presents a comparison of the one-time revenues and expenditures associated with the Event Center versus doubling the commercial space on the 12-acre property. While the Event Center brings with it a need for considerable infrastructure to accommodate the development, it is not clear that a doubling of the commercial space does. Accordingly, the Event Center brings with it a net upfront cost of \$37.5 million, relative to a commercial facility in place of the Center.

<sup>9</sup>This is an extremely conservative assumption. Some estimates suggest that a ratio of 150 to 11 is possible. This would considerably increase employment and hence output at the site, increasing the resulting income to both City residents and City coffers.

<sup>10</sup>The actual transaction price has been announced as \$150 million. San Francisco Times, **Warriors buy Mission Bay arena site from Salesforce**, 10/13/2015. In this analysis, the transaction price is kept at \$172.5 million to maintain comparability with the original EPS study. The change in sales price does have an effect on revenue estimates, but the effect is the same for both the Warriors plan and for the alternative, so it does not affect comparisons between the two.

<sup>11</sup>There are several avenues through which revenues may be exempt from gross receipts taxes in San Francisco. This analysis is extremely conservative in assuming that this is more likely the case for biotechnology firms (perhaps because of significant revenues accruing through pass-through companies) than for firms in other industries.

<sup>12</sup>Estimates of these benefits are derived from the 2013 San Francisco County model of IMPLAN. It should be noted that the EPS report does not provide estimates of the ancillary effects of the commercial aspect of the current project. This report similarly omits those benefits for the existing commercial development, but does include them for the commercial property that could be built in place of the stadium. These ancillary benefits are also reduced by one-half to provide a conservative estimate of the development's contribution to net revenues.

<sup>13</sup>UCSF, **Salesforce in talks for S.F. Mission Bay land deal**, SFGate, March 15, 2014.



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**Table 5. Summary of One-Time Revenues from Development**  
(Thousands of 2014 Dollars)

Category	Biotech	GSW Arena	Difference
Property Transfer Tax	4,200	4,200	0
City Fees - TIDF	10,902	17,436	-6,534
- Child Care	1,263	662	601
Construction			
- Sales Taxes	1,617	2,354	-737
- Gross Receipts Taxes	2,028	2,953	-925
<b>Total</b>	<b>20,010</b>	<b>27,605</b>	<b>-7,595</b>
<b>One-Time Expenses Associated with Development</b>			
Infrastructure Improvements	10,901	55,308	-44,407
<b>Net One-Time Revenues Associated with Development</b>			
Immediate Net Revenue Impact	9,108	-28,410	37,518

Source: EPS Report (9/25/15) and calculations by Marin Economic Consulting.

Although capital expenditures related to the Event Center are significantly higher than the revenues brought in through the TIDF, such is not expected to be the case for additional commercial space. The TIDF was put in place with developments such as this alternative in mind. Therefore, the transit costs associated with the development are better approximated using the TIDF taxation formula. The TIDF collected from the hypothetical alternative development (including the commercial, retail and parking in the GSW project) will serve as our estimate of related transit costs, \$10,901.

In the analysis above, the sales price for the property on which the event center and accompanying commercial and retail structures will be built is the same as in the EPS report: \$172,546,000. Property transfer tax would result regardless of the purchaser and the end use, but conceivably at a higher price. Salesforce originally paid \$278 million dollars for 14 acres (including the space in question) in 2010. The current sales price is \$172.5 million for 12 acres (actual is \$150 million). The plot of land in question represents the majority of the plot originally purchased by Salesforce, and is the largest single contiguous piece. Property values have also increased substantially since the original purchase by Salesforce.<sup>14</sup> It seems likely then that the value of the land would have increased significantly over the last five years as San Francisco is currently starved for commercial real estate. In the end, the price that the Warriors have paid for the land is surprisingly low. It represents the bulk of a property that was valued at \$278 million in 2010 and market values have only increased in the intervening years. Therefore, the actual market value of the land may well be higher than the price the Warriors have been offered and have paid, with correspondingly higher transfer taxes resulting from some alternative development.

<sup>14</sup> [Salesforce.com Is Said to Plan Sale of San Francisco Land](#), Bloomberg Business, March 11, 2014.

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Table 6 provides an analysis of the annual City revenues and expenses that can be attributed to each of the projects.<sup>15</sup> The first column is for the alternative development which targets the biotechnology industry. The second column reflects estimates regarding the current Golden State Warriors project, and the final column presents the difference in expected revenue between the two.

**Table 6. Summary of Annual Revenues and Expenses (in Thousands of 2014 Dollars)**

Category	Biotech	GSW Arena	Difference
<b>Annual Direct General Revenue</b>			
Property Tax (General Fund)	\$603	\$912	-\$309
Property Tax in Lieu of VLF	\$570	\$868	-\$298
Sales Tax	\$253	\$521	-\$268
Hotel/Motel Tax (General Fund)	\$0	\$1,667	-\$1,667
Parking Tax	\$243	\$482	-\$239
Stadium Admission Tax	\$0	\$4,336	-\$4,336
Gross Receipts Tax			
On-site	\$4,078	\$2,431	\$1,647
Off-site	\$0	\$42	-\$42
Utility User Tax	\$249	\$254	-\$5
<b>Subtotal</b>	<b>\$5,996</b>	<b>\$11,513</b>	<b>-\$5,517</b>
<b>Annual Other Dedicated and Restricted Direct Revenue</b>			
Special Fund Property Taxes (Children's, Library, and Open Space)	\$98	\$148	-\$50
Public Safety Sales Tax	\$127	\$260	-\$133
San Francisco County Transportation Authority Sales Tax	\$127	\$260	-\$133
MTA Parking Tax	\$971	\$1,929	-\$958
<b>Subtotal</b>	<b>\$1,322</b>	<b>\$2,597</b>	<b>-\$1,275</b>
<b>Total Revenues</b>	<b>\$7,318</b>	<b>\$14,110</b>	<b>-\$6,792</b>
<b>Annual Development-Related Expenses</b>			
SFMTA	\$0	\$5,100	-\$5,100
SFPD	\$0	\$900	-\$900
DPW	\$0	\$200	-\$200
<b>Total Expenses</b>	<b>\$0</b>	<b>\$6,200</b>	<b>-\$6,200</b>
<b>Net Annual Revenues</b>	<b>\$7,318</b>	<b>\$7,910</b>	<b>-\$592</b>
<b>Ancillary Benefits Associated with Each Project</b>			
Gross Receipts Tax	\$754	\$0	\$754
<b>Total Annual Net Revenue Expectation</b>	<b>\$8,071</b>	<b>\$7,910</b>	<b>\$162</b>

Source: EPS Report and calculations by Marin Economic Consulting.

In most categories, the annual revenues are greater for the Event Center than for a development with additional commercial space. The exception is in the Gross Receipts Taxes, where a biotech firm occupies the additional commercial space. Taken as a whole, annual revenues from a purely

<sup>15</sup> This alternative is chosen because it will allow the use of most of the EPS parameters and assumptions in producing annual revenues for the alternative project. See the Appendix for a comparison of calculations between this project and the EPS report.



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commercial development are \$6.8 million less than for the project under consideration. Once the expenses related to the activities at the Event Center are taken into consideration, annual net revenues are nearly identical. However, expanding the commercial element of the development has considerable ancillary benefits. Most economic functions both make purchases from the broader economy and also compensate workers, who then in turn make purchases from the broader economy. The gross receipts taxes associated with output in the San Francisco economy that is related to activities in the additional commercial space are estimated to be \$754,000 per year.<sup>16</sup> Once these benefits have been considered, the commercial development results in \$162,000 more in revenues annually than would the arena (last line of Table 6). From a net revenue perspective, a commercial development dominates the Event Center.

As discussed above, merely calculating the one-time costs and an estimate of the ongoing revenue is insufficient. Were it sufficient, a commercial project focused on biotech would clearly dominate the current project. Table 7 provides an evaluation of the 22-year net benefits of an alternative development with space devoted to biotechnology comparable to the evaluation for the current project.

**Table 7. Net Benefits of Alternative Developments after 22 Years**  
(Millions of Present Discounted 2014 Dollars)

	Biotechnology		Net Benefits		
	Benefits	Costs	Biotech	GSW	Difference
One-Time	\$20.0	\$10.9	\$9.1	-\$27.7	\$36.8
Ongoing	\$126.5	\$0.0	\$126.5	\$123.4	\$3.1
<b>Total</b>	<b>\$146.5</b>	<b>\$10.9</b>	<b>\$135.6</b>	<b>\$95.7</b>	<b>\$39.9</b>

Source: Calculations by Marin Economic Consulting

According to these calculations, an alternative development would provide an extra \$39.9 million in revenues for the City of San Francisco (as in Table 7). Net present discounted revenues for the project with an Event Center are \$95.7 million, while a project with commercial space devoted to attracting biotechnology firms has a discounted value of net revenues expected to be \$135.6 million, a difference of \$39.9 million dollars, or an additional \$1.8 million each year on average over the 22 years.

From a cash flow perspective, there is a deep hole early on with the Event Center. The first three columns of Table 8 present annual present discounted flows of revenues into San Francisco City coffers. The final three columns provide a cash flow, or cumulative contribution to City coffers. Several things are immediately apparent from the table:

1. The Event Center puts an enormous hole in the City's budget in the first year (row 1, column 4).

<sup>16</sup>This is half of what is implied by IMPLAN in order to maintain the conservative nature of these estimates.

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2. Substituting a commercial development is cash flow positive in the first year (row 3, column 5).
3. It will take four years of operation of the Event Center to dig the City out of the hole (column 6).
4. Although the gap in annual discounted net revenue closes over time, it remains significant even in year 20 (last row, column 4).
5. In year 20 of Event Center operations, there remains a surplus of revenue in the amount of \$39.9 million for the biotechnology development (last row, last column), which continues to grow in subsequent years.

A final issue that differentiates a biotechnology-centric development over an arena is one of economic impact. It is clear from the economics literature that sports stadiums and arenas provide little economic boost to the local economy. At the same time, it is clear that these facilities are responsible for generating some local economic activity. The failure to add to a region's economy is because they tend to displace other entertainment purchases from the broader economy rather than to stimulate new spending. An individual may go to a basketball game instead of to a play, opera, symphony, or rock concert. These facilities are therefore not additive to the economy.

Nonetheless, it has been estimated that economic activity associated with Oracle Arena accounts for \$44.9 million in economic activity and 494 jobs in Alameda County.<sup>17</sup> It seems likely that the impact of the new arena will be of a similar magnitude.

By comparison, a 522,000 square foot biotechnology facility, with a ratio of space to employee of 250 to 1 can accommodate more than 2,000 employees. That represents four times more employment for biotechnology than for the Arena. It is also consistent with an estimate of economic output on the order of \$1 billion, an order of magnitude higher than for the Arena. Accordingly, the biotechnology development can serve as a much more significant engine of economic growth for the region than can the new event center. Ancillary (indirect and induced) economic benefits for the City of San Francisco are estimated to similarly be in excess of \$1 billion. The gross receipts tax implications for the City of San Francisco are conservatively estimated to be \$754,000 per year.<sup>18</sup>

<sup>17</sup>Memo to Patrick Soluri, Attorney at Law, from Philip King, Ph.D., regarding Urban Decay Analysis of Proposed Relocation of Golden State Warriors from Oakland to San Francisco, page 9.

<sup>18</sup>These estimates are from the 2013 San Francisco County model of IMPLAN and have been scaled to 2014 dollars. The actual estimates of ancillary output generated were divided by two in order to keep the estimates conservative. The actual revenues could be significantly greater.



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**Table 8. Stream of Net Revenues over Time**  
(Thousands of 2014 Discounted Dollars)

Year	Annual			Cumulative		
	Biotech	GSW	Difference	Biotech	GSW	Difference
<b>One-Time Net Revenues:</b>						
2016	\$9,108	-\$27,704	\$36,812	\$9,108	-\$27,704	\$36,812
<b>Start of Ongoing Revenues:</b>						
2017	\$7,600	\$7,440	\$160	\$16,708	-\$20,264	\$36,972
2018	\$7,450	\$7,290	\$160	\$24,158	-\$12,974	\$37,132
2019	\$7,302	\$7,142	\$160	\$31,460	-\$5,831	\$37,292
2020	\$7,157	\$6,998	\$159	\$38,618	\$1,167	\$37,451
2021	\$7,016	\$6,857	\$159	\$45,633	\$8,024	\$37,609
2022	\$6,877	\$6,718	\$158	\$52,510	\$14,742	\$37,768
2023	\$6,740	\$6,583	\$157	\$59,250	\$21,325	\$37,925
2024	\$6,607	\$6,450	\$157	\$65,857	\$27,775	\$38,082
2025	\$6,476	\$6,320	\$156	\$72,333	\$34,095	\$38,238
2026	\$6,348	\$6,192	\$155	\$78,681	\$40,288	\$38,393
2027	\$6,222	\$6,068	\$154	\$84,903	\$46,355	\$38,547
2028	\$6,099	\$5,945	\$154	\$91,001	\$52,300	\$38,701
2029	\$5,978	\$5,825	\$153	\$96,979	\$58,126	\$38,854
2030	\$5,860	\$5,708	\$152	\$102,839	\$63,834	\$39,006
2031	\$5,744	\$5,593	\$151	\$108,583	\$69,427	\$39,157
2032	\$5,630	\$5,480	\$150	\$114,213	\$74,907	\$39,307
2033	\$5,519	\$5,370	\$149	\$119,732	\$80,277	\$39,456
2034	\$5,410	\$5,262	\$148	\$125,142	\$85,538	\$39,603
2035	\$5,303	\$5,156	\$147	\$130,444	\$90,694	\$39,750
<b>Year 20 of Event Center operation:</b>						
2036	\$5,198	\$5,052	\$146	\$135,642	\$95,746	\$39,896

Source: Marin Economic Consulting

### 4: Questioning the Benefits and Costs of the GSW Project

There are few guarantees with economic endeavors. Assuming that the conditions that exist today will exist tomorrow, the day after that, or 20 years from now is of dubious merit. Conditions change. The level of success of a basketball team ebbs and flows (though hopefully not for the Warriors), the economy grows and shrinks, modes of transportation change, and the availability of hotel rooms may decline as demand grows but supply does not.

This certainly holds true for the construction of an arena. While it is quite likely that the Warriors will play at the arena for the foreseeable future and experience a high level of success for some time, it is not certain that the estimated revenues will materialize. As a case in point, the EPS study assumes a sales price for the land of \$172,546,000. It has just been announced that the sales price was \$150,000,000. That represents a reduction in sales price of 13%, with a corresponding reduc-

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tion in revenues that are tied to the sales price: transfer taxes and ongoing property taxes. Although the long-term implications of a decline in ongoing property taxes is likely small, the transfer tax is reduced from \$4.2 million to \$3.65 million, a reduction in one-time revenues of \$549,000. Granted, this is just one percent of the one-time transit costs associated with the project, but it is more than half a million dollars no longer available for other city needs.

Two categories of revenue are particularly suspect: hotels and parking. With regard to hotels, it is not immediately clear that moving the venue from Oakland to San Francisco will necessarily lead to a significant increase in demand for hotel rooms in San Francisco. With regard to parking, the demand for parking ebbs and flows with the economy. It is also likely that demand for parking will decline significantly in the coming years. Estimates included in the EPS report are therefore likely biased upward and those revenues will not fully materialize.

### — Hotel/Motel Occupancy Tax

There are primarily two concerns related to forecasts of increased demand for hotel rooms in San Francisco resulting from the construction of the Event Center. First, San Francisco hotel occupancy rates for much of the year are very high, implying little excess capacity to be filled by basketball fans. During times of high demand for hotel rooms in San Francisco, many of those staying overnight for an event at the arena may choose to stay outside of the City. Alternatively, the demand resulting from arena events may well divert others to hotel rooms outside of the City. Second, it is also likely that many overnight visitors for the Warriors games currently stay in San Francisco, despite attending a game played in Oakland. Despite the change of venue to San Francisco, it is not clear that this shift will result in a significant net increase in demand for San Francisco hotel rooms.

The EPS estimates of revenues associated with the GSW project indicate an increase in hotel room occupancy. However, San Francisco is generally regarded as having a significant shortage of hotel rooms and to be operating near full capacity. Indeed, occupancy rates for San Francisco are high by any standard. San Francisco ranks third nationally in occupancy rates; New York is ranked #1.

The EPS report assumes that 10% of Event Center attendees are potential overnight visitors but that only half of them will constitute new demand for hotel rooms in San Francisco. This assumption represents an increase in demand for hotel rooms of approximately 50,000. However, it is likely that many current overnight visitors to Oracle Arena stay in San Francisco. It is entirely possible that a new arena will have a much smaller net impact on the demand for hotel rooms in San Francisco. This puts some \$1.7 million in expected additional revenues in question. If half of this demand does not materialize, or is displacement of other demand for hotel rooms in the City, this could reduce overall revenues by half, or by \$800,000 to \$900,000 in each year of operation, amounting to more than \$13 million in present discounted terms over 20 years of arena operation.



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### — Parking

Going forward, the use of personal vehicles and hence the demand for parking, as well as transit services, is going to be subject to significant disruption. In particular, ride-sharing services continue to grow, especially in San Francisco. With the use of these vehicles, the demand for parking at an event site will likely decline. There is also growing evidence that autonomous vehicles will be available in the near future. Several automobile and tech companies have announced a target date of 2020 for making these cars, or cars with this capacity, available to the general public. The growth of ride-sharing and the development of autonomous vehicles will likely reduce the demand for parking, particularly the demand related to attending events. The advent of autonomous cars being used in car-sharing will significantly increase the rate at which parking demand declines. Current estimates are that the Event Center will result in the demand for parking spaces on the order of 422,000 per year. Some of this demand for parking is likely to evaporate over time.

There could also be a significant decline in the demand for public transportation resulting from increased car-sharing. This has several implications. First, planned investments in infrastructure designed to expand transit availability to serve events may be rendered to some extent obsolete as people move away from transit and toward the use of autonomous vehicles, whether shared or privately owned. This represents a move away from transit toward private vehicles. Despite the projected decline in parking demand, this represents increased need for traffic mitigation of some sort. There will likely be an increase in vehicular traffic to and from the Event Center that could have implications for the arena's neighbors.

With the advent of autonomous vehicles and greater use of ride-sharing services, it is possible that demand for parking could decline significantly over the coming years. If we assume that it declines at a rate of 1% each year, that would reduce revenues associated with parking by \$3.8 million over the 20-year time horizon. It will also reduce parking demand for a biotechnology development, but by less, just \$1.9 million over 20 years. Should parking demand decline more quickly (5%/year), revenues could decline by as much as \$15 million

### — Net Benefits

The point of this discussion is that estimated revenues are suspect, while estimated costs are much more likely accurate. Fixed investments, in particular, are known and not subject to market whims. However in this case, there are unknowns lurking in the cost estimates. It is likely that the revenue implications are biased high, resulting in uncertainty over their future stream with more downside risk than upside. It is already the case that actual one-time revenues have turned out to be less than anticipated (such as the transfer tax, which was lower by \$549,000) and that the City has revised its

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estimates of one-time costs upward (by nearly \$16 million) and its estimates of ongoing expenses upward (by \$1.4 million in each year). Clearly, there is great uncertainty in almost all of these estimates.

### 5: Some Sensitivity Analysis

In each case, the revenue estimates relating to the GSW project and the revenue estimates relating to a biotechnology center are uncertain. It is therefore worthwhile to experiment with basic assumptions to better understand the implications for City revenues. Table 9 offers some evidence for the implications of particular assumptions. We provide four separate alternatives that relax in different ways the assumptions inherent in the baseline analysis. The top line of the table presents the baseline results of the analysis, the estimates of present discounted net revenues accruing to the City (corresponding to the last row in Table 7). In the case of the biotechnology development net present discounted revenues are \$135.6 million whereas they are just \$95.7 million for the GSW project, a difference of \$39.9 million.

**Table 9. Summary of Net Present Discounted Value Associated with Alternatives (22 Years, 2015-2036)  
Comparing the Multi-Purpose Venue with a Biotechnology Center (Millions)**

Item	Biotech	GSW	Difference	
			Over 22 Years	Per Year
Baseline	\$135.6	\$95.7	\$39.9	\$1.8
Alternative 1	\$135.6	\$82.6	\$53.1	\$2.4
- Hotel/Motel Revenues are overstated by 50% in EPS report		<i>Over Baseline :</i>	\$13.2	
Alternative 2	\$147.0	\$95.7	\$51.2	\$2.3
- Area to employee ratio for Biotech of 200/1		<i>Over Baseline :</i>	\$11.3	
Alternative 3	\$154.5	\$95.7	\$58.7	\$2.7
- Add 200,000 sq ft to New Commercial Space (722,000 total)		<i>Over Baseline :</i>	\$18.0	
Alternative 4 (Extreme)	\$234.2	\$82.6	\$151.6	\$6.9
- Area to employee ratio for Biotech of 150/1		<i>Over Baseline :</i>	\$111.7	
- 100% of Biotech revenues are subject to GRT				
- Hotel/Motel Revenues are overstated by 50%				
- Add 200,000 sq ft to New Commercial Space (722,000 total)				

Source: Marin Economic Consulting

The first alternative scenario assumes that one-half of the demand for hotel rooms in San Francisco fails to materialize with the GSW project. This results in a reduction of approximately \$13.2 million



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in net present discounted revenues. The revenues associated with the biotechnology development are unchanged because there are no transient occupancy tax revenues assumed to occur.

The second alternative assumes a greater density of employment in the new commercial facility, leaving the existing commercial plans constant. If there are 200 square feet per employee, rather than 250, revenues associated with the new facility increase by more than \$11.3 million relative to the baseline. This increase in revenue stems largely from an increase in the output produced by the building's occupants, resulting in increased gross receipts tax revenues. It also increases the occupants' interactions with the broader San Francisco economy, having a positive impact on ancillary benefits. Further reducing the space per employee will have correspondingly larger increases in revenues.

A third alternative assumes a larger facility is constructed, with 722,000 square feet of space rather than 522,000 square feet of space. This increases the number of employees working in the space by nearly 40%, holding the assumption that 250 square feet per employee is required. With greater space comes increased employment and increased output and increased demand for the output of the rest of the San Francisco economy. Accordingly, revenues are estimated to increase by nearly \$18.0 million with an expanded space. Under this scenario, the net discounted value of City revenues increases by \$58.7 million relative to the GSW project. Even larger spaces would have a correspondingly larger impact on City revenues.

Finally, an extreme alternative is offered. Alternative 4 allows for a 150 to 1 ratio of square feet to employees, assumes that all of the revenues accruing to the biotech occupants are subject to the GRT, reduces by one-half assumed hotel/motel TOT revenues associated with the Event Center, and involves a building with 722,000 square feet. Under this alternative, City revenues increase by \$111.7 million relative to the baseline, with biotechnology revenues exceeding GSW revenues by nearly \$151.6 million over 22 years and \$6.9 million per year.

These alternatives are not put forward to suggest that there is \$151.6 million being left on the table (though there may be), but rather to illustrate the range of differences that underlying assumptions can make. At the same time, even the extreme alternative is plausible.

### 6: Re-Evaluating the Net Benefits of Hosting the Warriors

There are two fundamental points made in this report:

1. Estimates of costs and revenues are highly speculative, and the evidence suggests that there is more downside risk to the GSW project than upside.
2. There is significant revenue that is forgone by the City in order to bring the Warriors to town.

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Both of these points raise significant questions about the Warriors arena project from a financial perspective. First, how comfortable are taxpayers in their understanding of the implications of this development? Second, is this the right development?

The respective answers are "not very" and "quite possibly no." There is uncertainty in the information available and replacing the Event Center in the project with additional commercial space has the potential to increase City revenues significantly.

Another way of thinking about the differences in revenues between the GSW project and a biotechnology development is that these differences reflect the price the City is paying in order to bring the Warriors to town. There are certainly other more tangible costs, but these costs are also real.

The above analysis indicates that even with relatively conservative assumptions, in particular those surrounding employment in the new development and the size of the new development, a biotechnology center would increase City revenues significantly relative to the Event Center. Under the baseline scenario, the difference is \$39.9 million over 22 years. Under the most extreme, yet plausible, scenario presented, an additional \$151.6 million could be raised over the 22-year period. This analysis presents a range of increases of between \$1.8 and \$6.9 million per year. It should be noted that the extreme alternative does not include the possibility of a larger facility. Were it to do so, the forgone annual revenues would be significantly higher. This suggests that the City of San Francisco is likely paying more than \$1.8 million and possibly upwards of \$7 million per year in forgone revenues in each of the next 22 years to accommodate the Warriors.

Every economic development represents a choice. That choice is between the proposed development and plausible alternatives. The City has chosen to pursue a basketball team without exploring or disclosing the relative merits of the project compared with plausible alternatives. This report is not designed to condemn the choice, but rather to better inform the debate on the implications of this choice.



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**APPENDIX: Details of Annual Revenue Calculations for Biotech in Comparison with the Warriors Project**

This appendix provides tables illustrating key differences in the assumptions and results between the analysis presented in the EPS report of 9/25/15 and the biotechnology project discussed in the text. The tables very closely mirror those in the EPS report and reproduce assumptions and results from that report. Some tables are not applicable to the biotechnology project and are omitted. In particular, Tables A-9 through A-11 are omitted. It should also be noted that these tables have not been updated to reflect the actual purchase price paid by the Warriors. It does, however, include updates to the City's estimates of one-time and ongoing costs.

**Table A-1. San Francisco Revenue Summary (Thousands of 2014 dollars)  
Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	GSW	Biotech	Difference
<b>Annual General Revenue</b>			
Property Tax (General Fund)	\$912	\$603	-\$309
Property Tax in Lieu of VLF	\$868	\$570	-\$298
Sales Tax	\$521	\$253	-\$268
Hotel/Motel Tax (General Fund)	\$1,667	\$0	-\$1,667
Parking Tax	\$482	\$243	-\$239
Stadium Admission Tax	\$4,336	\$0	-\$4,336
<i>Gross Receipts Tax</i>			
On-site	\$2,431	\$4,078	\$1,647
Off-site	\$42	\$0	-\$42
Utility User Tax	\$254	\$249	-\$5
Subtotal	\$11,513	\$5,996	-\$5,517
<b>Annual Other Dedicated and Restricted Revenue</b>			
Special Fund Property Taxes (Children's, Library, and Open Space)	\$148	\$98	-\$50
Public Safety Sales Tax	\$260	\$127	-\$133
San Francisco County Transportation Authority Sales Tax	\$260	\$127	-\$133
MTA Parking Tax	\$1,929	\$971	-\$958
Subtotal	\$2,597	\$1,322	-\$1,275
<b>TOTAL REVENUES</b>	<b>\$14,110</b>	<b>\$7,318</b>	<b>-\$6,792</b>

Source: EPS and Marin Economic Consulting

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**Table A-2. San Francisco City One-Time Fee Revenue Summary (2014 dollars)  
Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	GSW	Biotech	Difference
New Gross Building Area (sq.ft.)		1,156,500	
<b>City Fees (per gross building sq.ft.)</b>			
Child Care	\$661,870	\$1,263,240	\$601,370
Transit Impact Development Fee	\$17,435,765	\$10,901,655	-\$6,534,110
<b>Total Development Impact Fee</b>	<b>\$18,097,635</b>	<b>\$12,164,895</b>	<b>-\$5,932,740</b>
<b>Other In-Lieu Impact Fees</b>			
<b>Other One-Time Revenues</b>			
Sales Taxes During Construction	\$2,354,634	\$1,617,159	-\$737,475
Gross Receipts Tax During Construction	\$2,953,050	\$2,027,835	-\$925,215
Property Transfer Tax from Initial Land Sale	\$4,200,000	\$4,200,000	\$0

Source: EPS and Marin Economic Consulting

Note: The gross building area for the biotechnology development includes four commercial buildings with 1,044,000 square feet and retail of 112,500 square feet.



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Table A-3. San Francisco Property Tax Estimates (2014 dollars)  
Comparing the Multi-Purpose Venue with a Biotechnology Center

Item	Assumptions	GSW	Biotech	Difference
<b>Secured Assessed Value</b>				
Multi-Purpose Venue		\$550,000,000	\$0	\$550,000,000
<b>Other Development</b>				
Event Management/Team Operations Space		\$14,500,000	\$0	\$14,500,000
Retail		\$41,343,750	\$41,343,750	\$0
Office		\$302,760,000	\$605,520,000	-\$302,760,000
Parking		\$33,250,000	\$33,250,000	\$0
Subtotal		\$941,853,750	\$680,113,750	\$261,740,000
<b>New Taxable Value</b>				
Gross Secured Possessory Interest/Property Tax	1.0% of new AV	\$9,418,538	\$6,801,138	\$2,617,400
Unsecured Tax from the Warriors		\$183,333	\$0	\$183,333
Unsecured Tax from Other Uses		\$391,854	\$0	\$391,854
Subtotal		\$9,993,725	\$6,801,138	\$3,192,587
(less) Existing Taxes		-\$1,795,169	-\$1,795,169	\$0
Total		\$8,198,556	\$5,005,969	\$3,192,587
<b>Property Tax</b>				
Tier 1 Property Tax Pass Through	20.00%	\$1,639,711	\$1,001,194	\$638,517
Tier 2 Property Tax Pass Through	16.8%	\$1,377,357	\$841,003	\$536,355
Tier 1 and 2 Property Tax Pass Throughs	36.80%	\$3,017,068	\$1,842,196	\$1,174,872
Net New General Fund Share (after ERAF)	55.59% property tax tier 1 pass through	\$911,515	\$556,564	\$354,952
Special Funds	9.00% property tax tier 1 pass through	\$147,574	\$90,107	\$57,467
SF Unified School District	7.70% property tax pass through	\$232,314	\$141,849	\$90,465
Affordable Housing Set Aside		\$1,639,711	\$1,001,194	\$638,517

Source: EPS and Marin Economic Consulting

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Table A-4. Property Tax in Lieu of VLF Estimates (2014 dollars)  
Comparing the Multi-Purpose Venue with a Biotechnology Center

Item	GSW	Biotech	Difference
Citywide Total Assessed Value (millions \$)	\$172,489	\$172,489	
Total Assessed Value of Project (millions of \$)	\$941.85	\$680.11	\$261.74
(less) Existing Value	-\$179.52	-\$179.52	
Net Increase in Project Assessed Value (millions \$)	\$762.34	\$500.59	\$261.75
Growth in Citywide AV due to Project	0.442%	0.290%	
Total Property Tax in Lieu of Vehicle License Fee (VLF) (FY2014-15)	\$196,480,000	\$196,480,000	
<b>New Property Tax in Lieu of VLF</b>	<b>\$868,372</b>	<b>\$570,220</b>	<b>\$298,152</b>

Source: EPS and Marin Economic Consulting

Table A-5. Property Transfer Tax (2014 dollars)  
Comparing the Multi-Purpose Venue with a Biotechnology Center

Item	Assumptions	GSW	Biotech
One-Time Transfer Tax			
Estimated Land Sale		\$172,546,000	\$172,546,000
<b>One-Time Transfer Tax</b>	<b>\$24.34 per \$1,000 value</b>	<b>\$4,199,770</b>	<b>\$4,199,770</b>

Source: EPS and Marin Economic Consulting

Note: The actual transaction price for the property is \$150 million.



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**Table A-6. Sales Tax Estimate (thousands of 2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Biotech	Difference
<b>Taxable Sales from Multi-Purpose Venue</b>				
Warriors Game Concessions and Merchandise	\$21.60 per attendee	\$15,768		
Other Event Concessions	\$11.00 per attendee	\$12,859		
Total		\$28,627		
Sales Tax to General Fund	1.0% of taxable sales	\$286		
(less) Existing Sales Shift		-\$18		
Net New Sales Tax		\$267		
<b>Taxable Sales From Commercial Space</b>				
Retail	\$450 per sq ft	\$50,625	\$50,625	\$0
Sales Tax to San Francisco	1.0% of taxable sales	\$506	\$506	\$0
(less) Shift From Existing Sales		-\$253	-\$253	\$0
Net New Sales Tax		\$253	\$253	\$0
<b>Annual Sales Tax after Shift of Existing Sales</b>				
Sales Tax to the City General Fund	1.00%	\$521	\$253	-\$268
Public Safety Sales Tax	0.50% of taxable sales	\$260	\$126	-\$133
San Francisco County Transportation Authority	0.50% of taxable sales	\$260	\$127	-\$134
SF Public Financing Authority (Schools)	0.25% of taxable sales	\$130	\$63	-\$67
<b>One-Time Sales Taxes on Construction Materials and Supplies</b>				
New Taxable Value		\$941,854	\$680,114	-\$261,740
Supply/Materials Portion of Development Value	50.00%	\$470,927	\$340,057	-\$130,870
San Francisco Capture of Taxable Sales	50.00%	\$235,463	\$170,028	-\$65,435
Sales Tax to San Francisco	1.0% of taxable sales	\$2,355	\$1,700	-\$654

Source: EPS and Marin Economic Consulting

**Table A-7. Transient Occupancy Tax Estimates Estimate (2014 dollars)**  
**The implications of over-estimating hotel and motel occupancy.**

Item	Assumptions	GSW	50% of GSW	Difference
<b>Overnight Attendees in San Francisco for Multi-Purpose Venue Events</b>				
Events per Year		205	205	0
Total Turnstile Attendance		1,899,000	1,899,000	0
Potential Overnight Visitors		189,900	189,900	0
Net New Overnight Visitors	50% (25%)	94,950	47,475	-47,475
Hotel Room Demand	1.90 people per room	49,974	24,987	-24,987
Off-Site Hotel/Motel Room Proceeds	\$238 per-room night	\$11,907,203	\$5,946,868	-\$5,960,335
<b>Total Hotel/Motel Tax Revenue</b>	14% of room revenue	\$1,667,012	\$832,562	-\$834,450

Source: EPS and Marin Economic Consulting

## O-MBA23S7

**Table A-8. Parking Tax Estimates (2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Assumptions	50% of GSW	Difference
<b>Total Spaces On-Site</b>		950		950	
<b>Parking Revenues On-Site</b>					
Total	\$25 per day	\$8,668,750	\$20 per day	\$6,935,000	
(less) Vacancy	30%	-\$2,600,625	30%	-\$2,080,500	
Total		\$6,068,125		\$4,854,500	
<b>Spaces Off-Site</b>					
Annual Demand (spaces)		1,178,791			\$0
Total Parking Revenue	\$20 per day	\$3,575,821			\$0
<b>San Francisco Parking Tax</b>					
Parking Tax Allocation to Gen'l Fund/Special Projects	25% of annual revenue	\$2,410,987	25% of annual revenue	\$1,213,625	-\$1,197,362
Parking Tax Allocation to Municipal Transportation Fund	20% of tax proceeds	\$482,197	20% of tax proceeds	\$242,725	-\$239,472
Parking Tax Allocation to Municipal Transportation Fund	80% of tax proceeds	\$1,928,789	80% of tax proceeds	\$970,900	-\$957,889

Source: EPS and Marin Economic Consulting



## O-MBA23S7

**Table A-12. Parking Tax Estimates (2014 dollars)**  
**Comparing the Multi-Purpose Venue with a Biotechnology Center**

Item	Assumptions	GSW	Biotech	Difference
<b>Arena Utility Cost</b>		\$1,490,000	\$0	-\$1,490,000
<b>Other Uses</b>				
Retail	\$2.87 per sq.ft.	\$322,875	\$322,875	\$0
Office (Including Event Management and Team Operations)	\$2.87 per sq.ft.	\$1,569,890	\$2,996,280	\$1,426,390
<b>Total Annual Commercial Utility Cost</b>		\$3,382,765	\$3,319,155	-\$63,610
<b>Utility User Tax</b>	7.5% of commercial utility cost	\$253,707	\$248,937	-\$4,771

Source: EPS and Marin Economic Consulting

## O-MBA24L9

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November 5, 2015

President Rodney Fong and Members of the Planning Commission  
City and County of San Francisco  
1650 Mission Street, Suite 400  
San Francisco, CA 94103

**Re: Warriors Arena Project: Planning Codes section 321 and 305, General Plan Inconsistency and CEQA Findings.**

Dear Commission President Fong and Members of the Commission:

:

This office represents the Mission Bay Alliance (“Alliance”), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (“Warriors Arena Project” or “Project”). The Mission Bay Alliance objects to approval of this Project and certification of the Project SEIR.

**1. The Project is ineligible for any office space allocation under Planning Code section 321 and Motion 17709.**

**a. This Project does not comply with the Design for Development.**

Resolution 14702 and Motion 17709 require that any project in the Alexandria District must comply with the Mission Bay South Design for Development in order to be eligible for any office space allocation. (See Motion 17709, p. 9, Finding 9,<sup>1</sup> Finding 10<sup>2</sup>.)

<sup>1</sup>“This schedule of phased authorization will ensure that, in accord with Resolution 14702, adequate office space can be allocated to those projects within the Development District that are determined to be in compliance with the D for D requirements, while also complying with Section 321 of the Planning Code forbidding exceedance of the square footage available for allocation in any given annual cycle.”

<sup>2</sup>“Pursuant to Resolution 14702, the Commission is charged with determining whether a project seeking authorization conforms to applicable standards in the D for D Document, which supersedes the criteria set forth in Section 321 and other provisions of the Code except as provided in the MBS Plan. The projects previously approved were determined to have met the MBS Redevelopment Plan and the D for D Document standards and guidelines, and requirements for childcare, public art, and other provisions of the Plan Documents, and retain



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This Project does not comply with the Design for Development, as evidenced by the many amendments that the Successor Agency made to the Design for Development to accommodate the Project. Therefore, it is ineligible for allocation of any office space under Planning Code section 321 and Motion 17709.

### b. This Project is inconsistent with the Redevelopment Plan.

A basic premise of the Planning Commission decisions in Resolution 14702 and Motion 17709, and a fundamental rationale for “superseding” section 321’s guidelines in favor of the Redevelopment Plan and Redevelopment Plan documents, were the Commission’s findings that the Redevelopment Plan met standards set in section 321, the San Francisco Master Plan, the priority policies in Planning Code section 101.1, and the requirements of redevelopment law. In short, in order to be eligible for the office space allocation available under motion 17709, the Project must be consistent with the Redevelopment Plan.

This Project is inconsistent with the Redevelopment Plan because, as demonstrated in the November 2, 2015, letter from Susan Brandt-Hawley, my co-counsel for the Alliance (attached as Exhibit 1), this Project is not an allowable secondary use under the Redevelopment Plan. However, in the alternative, as shown in my November 2, 2015, letter (attached as Exhibit 2), if the Project is an allowable secondary use under the Redevelopment Plan, then it requires a variance under section 305 of the Plan before Project approval.

### 2. The office space allocation requested for this Project exceeds the amount authorized for the Alexandria District.

In 1986, San Francisco voters passed Proposition M, a referendum limiting the amount of office space that can be approved each year. Codified as Section 321 of the San Francisco Planning Code, it provides that “[n]o office development may be approved during any approval period if the additional office space in that office development, when added to the additional office space in all other office developments . . . would exceed 950,000 square feet.” (San Francisco Planning Code § 321(a)(1).) Office space is defined to mean “construction . . . of any structure” that has the “effect of creating additional office space.”

The current Project plans call for the construction of two office towers on Mission Bay South Parcels 29 and 31, comprising 309,436 square feet and 267,486 square feet of office space, respectively, for

that design approval, along with all previously imposed conditions of approval. Future projects requesting authorization will be brought before the Commission for design review in accord with Resolution 14702, and upon determination by the Commission that such proposals are in conformity with the D for D and other applicable requirements, office space may be allocated for such new structures from the unassigned amount available in the Development District.”

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[LC-PP-1]

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[LC-PP-2]

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a total of 576,922 square feet of office space. (Executive Summary, p. 2.)

In 2008, the Planning Commission adopted Motion No. 17709. Motion 17709 approved a cumulative total office space allocation for all projects within the Alexandria Development District of 1,350,000 gross square feet. (Motion 17709, p. 9, Finding 9.) Of that amount, 1,222,980 was allocated before the adoption of Motion 17709. (Motion 17709, p. 5, Finding 4, Table 1.) Therefore, at the time Motion 17709 was proposed, 227,020 gsf of unallocated office remained for allocation. (Motion 17709, p. 9, Finding 9, Table 4.)

According to Motion 17709, there were three pending projects at that time, at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street. Motion 17709 states that these projects represented 665,880 square feet of “potential office space.” (Motion 17709, p. 5, Finding 5, Table 2.) Motion 17709 also states an intent to authorize only 57% of “potential office space” for actual office space after 10/18/09, 53% of “potential office space” for actual office space after 10/18/10, and 50% of “potential office space” for actual office space after 10/18/11.

Motion 17709 does not state how much actual office space was approved for the three pending projects at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street. The Planning Department’s Office Development Annual Limitation Program record (attached as Exhibit 3) shows “0\*” in the “size” column for these projects. (Exhibit 3, p. 19.) Assuming the Planning Commission allocated office space to these projects at the 57% ratio, that amount is 379,552 gsf (665,880 x .5). **This amount exceeds the remaining office space available for allocation at that time (i.e., 227,020 gsf).**

According to Motion 17709, there were two additional areas where the applicant indicated an intent to develop “potential office space,” namely, MB South Blocks “29 and 31” and “33-34.” (Motion 17709, p. 5, Finding 6, Table 3.) Motion 17709 states that these possible future projects represented 915,700 square feet of “potential office space,” with Blocks “29 and 31” at 515,700 GSF. (Motion 17709, p. 5, Finding 6, Table 3.)

Assuming, again, that the Planning Commission allocated office space to these areas at the 50% ratio, that amount is 457,850 GSF (915,700 x .5), with 257,850 allocated to Blocks “29 and 31” at 257,850 gsf (515,700 x .5).

The Draft Motion proposed for adoption at today’s hearing states that “Blocks 29-32 are included in the Development District and have been allocated a total of 677,020 sf of office space pursuant to Motion No. 17709.” (Draft Motion, p. 3.) This is incorrect in at least four ways.

First, it is unclear and unstated how Planning staff derived the 677,020 gsf number.

Second, after approval of the office space allocation for the three pending projects at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street, there was no office space left in the

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Alexandria District to allocate - as discussed above.

Third, even if one adds together the “potential office space” numbers for Blocks 29-32 in Motion 17709, the sum is 1,119,999 gsf, and 50% of that is only 560,000 gsf. The two office towers proposed for this Project require 576,922 gsf. (See Executive Summary, pp. 1-2: 309,436 gsf in the South tower and 267,486 gsf in the 16<sup>th</sup> Street tower). This number exceeds 560,000 gsf.

Fourth, when one adds the 25,000 gsf for office space in the arena building (see SEIR p. 3-17), the office space for this project totals 601,922 gsf (i.e., 576,922 plus 25,000), which also exceeds 560,000 gsf.

Fifth, to the extent there was any office space left for Motion 17709 to allocate after approval of the office space allocation for the three pending projects at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street, Motion 17709 allocated only 257,850 gsf to Blocks 29 and 31 (i.e., 50% of 515,700) pursuant to Finding 6, Table 3. **The 576,922 gsf of office space in the two office towers for this Project are located in Blocks 29 and 31; and the total of 576,922 gsf vastly exceeds the 257,850 gsf that may arguably be available.**

Because the office towers called for in the Project exceed the allowable office space cap, Section 321(a)(1) and Motion 17709 require the Planning Commission to deny approval of the Project and of the requested allocations of office space.

### 3. General Plan Inconsistency: BAAQMD.

San Francisco Master Plan Policy 4.1 states:

Support and comply with objectives, policies, and air quality standards of the Bay Area Air Quality Management District.

Regionwide monitoring of air quality and enforcement of air quality standards constitute the primary means of reducing harmful emissions. The conservation of San Francisco's air resource is dependent upon the continuation and strengthening of regional controls over air polluters. San Francisco should do all that is in its power to support the Bay Area Air Quality Management district in its following operations:

- Monitoring both stationary and mobile sources of air pollution within the region and enforcing District regulations for achieving air quality standards.
- Regulating new construction that may significantly impair ambient air quality.
- Maintaining alert, permit, and violations systems.
- Developing more effective controls and method of enforcement, as necessary

The attached letter from the Bay Area Air Quality Management District (Exhibit 4) and the City's response (Exhibit 5) show that this Project does not comply with this policy.

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[LC-PP-3]

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The Alliance previously commented on the Draft SEIR (Comment AQ-7) that the per ton charge for emission offsets is too low to achieve complete offset of the Project's emissions. The City's response to comments on this point is cagey, but it does suggest what now turns out to be fact - that the BAAQMD agreed with the comment - because the response states:

SF Planning has been in communication with BAAQMD with regard to its suggestion that a higher fee may be warranted to offset project emissions to a less than significant level and found that BAAQMD could not establish that an increased rate beyond that of the Carl Moyer Program plus a five percent administrative fee could meet the “rough proportionality” standard required under CEQA.

(RTC, p. 13.13-67.) The RTC's rationale for contending that a higher offset fee would not meet the “rough proportionality” standard is that offset fees in other areas of the state are not higher than the offset fee proposed in the DSEIR. This is an error of law. The “rough proportionality” requirement requires a comparison of the cost of the mitigation to the degree of severity of the impact. The fees charged in other areas of the state are irrelevant to “rough proportionality.”

### 4. CEQA Findings: General

The Commission cannot make any CEQA findings required by CEQA section 21081 or CEQA Guidelines 15091, 15093, 15096(f), because the Project SEIR does not comply with CEQA and is not certifiable, for the reasons described in the Alliance's comments on the SEIR.

### 5. CEQA Findings: BAAQMD.

The Commission cannot find that “Impact AQ-4: Potential conflicts with BAAQMD's 2010 Clean Air Plan” is less than significant with mitigation because the City and Project Sponsor refuse to agree to BAAQMD's offset fees per Mitigation Measure M-AQ-2b. (See Exhibits 4 and 5.) There is also no evidence that the “Option 2” offset idea within Mitigation Measure M-AQ-2b is feasible. There are too many unanswered questions regarding Option 2, including lack of assured verification of offsets to ensure their effectiveness, and lack of assurance that offset sources are available in the quantity required. BAAQMD's offset program at least answers some, if not all, of these questions.

The Commission cannot find that all feasible mitigation measures that would substantially reduce “Impact AQ-1: Impacts of Criteria Air Pollutants from Construction” have been adopted as required by CEQA section 21081, because there is no evidence that paying the offset fees demanded by BAAQMD is infeasible. Also, as discussed above, there is no evidence that the “Option 2” offset idea within Mitigation Measure M-AQ-2b is feasible; therefore, it is not an adequate substitute for BAAQMD's offset program. This also applies to

- Impact AQ-2: Impacts of Criteria Air Pollutants from Project Operations”; Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts;

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[LC-ERP-3]



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- Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts.

**6. CEQA Findings: Pier 80 Alternate Site.**

The Commission cannot find that feasible alternatives that would substantially reduce the Project's significant impacts have been adopted. The SEIR does not analyze the alternate site proposed by the Alliance near Pier 80, and did not circulate that analysis for public comment. Neither OCII nor this Commission has the basis to make conclusory findings rejecting the alternative. Among the relevant facts not considered in the findings is that the site is three times as large as would be required for the Event Center project and need not utilize any of the City-owned property nor any particular configuration of the privately-owned lots should there be an unwilling seller. There is no evidence provided that the site could not be acquired within a reasonable time period.

Case law confirms that assuring a site's consistency with city plans and zoning is within the City's power. Similarly, the scheduling of transportation services to the site can be increased, and the findings provide no studies to back up conclusory statements regarding traffic, air quality, hydrology, or water quality impacts. Since only a third of the site is needed to accommodate the event center, all of the impacts (if shown to have concern after sufficient technical review) can be avoided or mitigated. As stated in the Alliance letter to OCII that proposes this site for consideration as an alternative, here incorporated by reference, the SEIR failed to consider a potentially-feasible off-site alternative and must be revised and recirculated to do so before findings of infeasibility may be considered or adopted. The site suggested by the Alliance is potentially feasible and deserving of study.

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

\\Lgw-12-19-12\\d\\Mission Bay\\Administrative Proceedings\\LOTNL Docs\\C013a Plan Com re variance, Prop M, GP.wpd

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November 2, 2015

Tiffany Bohee, OCII Executive Director  
c/o Brett Bollinger, San Francisco Planning Department  
via email [warriors@sfgov.org](mailto:warriors@sfgov.org)

Subject: Warriors Event Center & Mixed Use Development  
Inconsistency with Mission Bay South Redevelopment Plan  
'Secondary Use' Classification

Dear Director Bohee and Mr. Bollinger:

The Mission Bay Alliance (the Alliance) contends that the Warriors' Event Center is unlawfully inconsistent with every use allowed by the Mission Bay South Redevelopment Plan (the Plan). Although the Alliance raised this issue in comments on the Draft Subsequent EIR (DSEIR), both the Responses to Comments in the Final SEIR and OCII's findings of project consistency remain materially inadequate.

The Plan designates uses allowed at a 'Commercial Industrial/Retail' site. The Alliance notes that while OCII now concedes that a sports arena is not within the scope of allowed 'principal uses' in that zoning, OCII contends that an arena is consistent with 'secondary uses.' As this letter will explain, all such secondary uses are similarly and demonstrably insufficient to permit the Warriors' sports arena.

**Nighttime Entertainment.** The Initial Study concluded, in error, that the DSEIR did not need to address land use issues — at all. It asserted that the entire Event Center, including the sports arena use, somehow met the secondary 'Nighttime Entertainment' use analyzed in the 1998 Plan EIR. Secondary uses were then generally referenced in the DSEIR (*e.g.*, pp. 3-8, 3-51, 4-5, 5.2-115), but there was no discussion of which category of secondary use would be allocated to the Event Center, inferring acceptance of the Nighttime Entertainment category.

The Plan describes Nighttime Entertainment in terms of small-scale local uses like dance halls, bars, nightclubs, discotheques, nightclubs, private clubs, and

**EXHIBIT 1**



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Warriors Event Center  
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restaurants. (Plan, p. 50.) At the time of the 1998 EIR, several small neighborhood bars occasionally offered nighttime entertainment, consistent with the secondary use category. Such minor uses were compatible with the 3rd Street Corridor and the waterfront. Clearly, no mammoth regional entertainment venue was anticipated in Mission Bay South and no such use was considered in the 1998 Plan EIR.

And while professional basketball games are held at night, the Event Center also projects 31 annual events “related to conventions, conferences, civic events, corporate events and other gatherings,” with an estimated attendance of between 9,000 and 18,500 patrons. “[T]he majority of events are expected to occur during day time hours.” Such events are not ‘Nighttime Entertainment.’

The Director’s currently-proposed findings that the sports arena is ‘Nighttime Entertainment’ contemplated as a secondary use in the Plan are unsupported. The findings fail to match the scope and impacts of a professional sports venue with the analysis or description of uses in the Plan or in the 1998 EIR. The findings are fatally conclusory; that somehow a professional sports venue would be “similar” to a nightclub or bar use in the ‘Nighttime Entertainment’ category “because” it will serve alcohol, provide amplified live entertainment, and provide a venue for evening gatherings. The findings fail to address the core inconsistency of a regional sports arena with the intent of the adopted Plan and the Design for Development, which focus on commercial entertainment uses in Mission Bay North to complement the Giants’ ballpark.

OCII’s reliance on the negative; to wit, that the ‘Nighttime Entertainment’ secondary use has no specific size limitations, is not enough. The Plan provides for the continued development of Mission Bay South as a walkable urban community intended to facilitate world-class medical and biotechnology development. The Event Center project violates the Plan Area Map carefully designed in classic, walkable Vara Blocks. (Plan, Attachment 2, p. 40.) Neither the Plan nor the Design for Development contemplate any uses comparable in scope or impact to the Event Center as ‘Nighttime Entertainment.’

That being said, in fact in the Final SEIR and as reflected in the proposed Plan consistency findings, OCII now implicitly agrees with the Alliance that the ‘Nighttime Entertainment’ secondary use standing alone does not encompass a sports arena. Now, OCII additionally relies on the Plan’s alternate ‘secondary uses.’ No such uses are consistent with the Plan, as explained below.

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**Recreation Building.** One of the Plan’s secondary use categories is for an undefined ‘Recreation building.’ (Plan, p. 15.) The Plan describes ‘Outdoor Recreation’ as “an area, not within a building, which is provided *for the recreational uses of patrons* of a commercial establishment.” (Plan, p. 50, italics added.)

OCII’s proposed findings as to the ‘Recreation building’ category stretch the regional sports arena use not only beyond what was contemplated by the Plan or studied in the 1998 EIR, but beyond logic. To state the obvious: there is a difference between ‘recreation’ and ‘entertainment.’ Both involve enjoyment and leisure, and may involve ancillary eating and drinking, and the Alliance has no quarrel with the Director’s reference to recreation as “something people do to relax or have fun; activities done for enjoyment.” (OCII Proposed Secondary Use Determination, p. 6.) But myriad dictionary definitions confirm and it cannot readily be denied that ‘recreation’ is commonly understood to involve one’s personal physical activities while ‘entertainment’ refers to events or performances designed to entertain others.

None of the Plan’s various references to ‘entertainment’ include athletic activities normally considered ‘recreation:’ Adult Entertainment [bookstore or theater], Amusement Enterprise [video games], Bar [drinking and theater], Theater [movies and performance]. (Plan, Attachment 5, pp. 44-51.) Consistently, the 1998 EIR’s discussion of ‘recreational’ land uses focused in turn on open space, bicycles, parks, and water-based activities. (Mission Bay EIR, Volume IIB, pp. V.M. 15-28.)

In context, the Plan’s reference to ‘Recreation building’ as a secondary use contemplates participatory recreational uses like the ‘recreation facilities’ referenced in the 1998 Plan EIR for the existing golf driving range and in-line hockey rink, with the expressed expectation that the size of recreational ‘facilities’ would decrease as redevelopment of the Plan area progressed. (OCII Proposed Secondary Use Determination, p. 6.)

Reliance on the secondary use of ‘Recreation building’ is unsupported.

**Public Structure or Use of a Nonindustrial Character.** As presented in the Plan, the category of “other secondary uses” labeled ‘Public structure or use of a nonindustrial character’ references *one* secondary use, not *two*. (Plan, p. 13.) The use is required to be public, and either a structure *or* a use.



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The interpretation urged by the Director is, again, strained beyond the plain words of the Plan. 'Public' is not defined in the Plan and so its common meaning is assumed. But as proposed in the consistency findings, OCII interprets a 'public' use as simply requiring that the public be somehow 'served.' That would encompass every kind of principal and secondary use listed in the Plan, from child care to animal care to hotel, *etc.*, and renders the category meaningless: *i.e.*, "Any use is ok."

Instead, a public structure or use is commonly understood to be under the control and management of a public agency for the benefit of its constituency — such as the University of California<sup>1</sup> or the City of San Francisco. The Plan provides a description of a range of anticipated public improvements in Attachment 4. This list includes both public buildings and public uses. None of the public improvements listed in Attachment 4 include anything like a private professional sports arena.

The Event Center is a private project and is not within the scope of the secondary use category for a public structure or use of a nonindustrial character.

**Director's Findings.** As explained, the sports arena uses that are the impetus for the Event Center project are not allowed by the Plan's allowed principal or secondary uses. An allowed use is prerequisite for a finding of Plan consistency. The Alliance will not belabor the myriad other inconsistencies with the Plan's objectives, design, incompatibility with UCSF, and creation of significant environmental impacts, as those have been described in the DSEIR comments and throughout the administrative record, but hereby objects to their insufficiencies and lack of supporting substantial evidence for the Plan consistency finding.

Consideration of the Event Center project must be preceded by amendment of the Plan to be consistent with the delineated principal and secondary uses and the adopted Plan Area Map of the Mission Bay South Redevelopment Plan.

Thank you.

Sincerely yours,

  
Susan Brandt-Hawley  
Attorney for Mission Bay Alliance

<sup>1</sup> See attached 2005 Resolution and Secondary Use finding regarding the "UCSF hospital" as a "public structure or use of a non-industrial character" for "a public body specifically created by the California Constitution."

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RESOLUTION NO. 176-2005

Adopted November 1, 2005

APPROVING A MEMORANDUM OF UNDERSTANDING WITH THE  
REGENTS OF THE UNIVERSITY OF CALIFORNIA, A CALIFORNIA  
PUBLIC CORPORATION, AND ACKNOWLEDGING THE EXECUTIVE  
DIRECTOR'S FINDINGS OF CONSISTENCY WITH THE MISSION BAY  
SOUTH REDEVELOPMENT PLAN, FOR THE EXPANSION OF UCSF  
FACILITIES IN THE MISSION BAY SOUTH REDEVELOPMENT  
PROJECT AREA; MISSION BAY SOUTH REDEVELOPMENT  
PROJECT AREA

BASIS FOR RESOLUTION

1. On September 17, 1998, by Resolution No. 193-98, the Redevelopment Agency of the City and County of San Francisco's (the "Agency") Commission (the "Agency Commission") conditionally approved the Mission Bay South Owner Participation Agreement (the "South OPA") and related documents between Catellus Development Corporation (the "Owner") and the Agency for development in the Mission Bay South Redevelopment Project Area (the "Project Area").
2. On November 2, 1998, the Board of Supervisors of the City and County of San Francisco (the "Board") by Ordinance No. 335-98 approved and adopted the Redevelopment Plan for the Mission Bay South Redevelopment Project Area (the "Plan"). The Board's adoption of the Plan satisfied the conditions to the effectiveness of Agency Resolution No. 193-98.
3. On November 16, 1998, the Agency entered into the South OPA with the Owner. The South OPA sets forth phasing principles that govern the development of property in the Project Area. Those principles include the Owner's obligations to deliver to the Agency affordable housing sites as market rate housing is built in the Project Area. They also include the Owner's commitments to construct public open space and other public infrastructure adjacent to – or otherwise triggered by – development on any of the private parcels governed by the South OPA.
4. Under the South OPA and the related Mission Bay South Tax Increment Allocation Pledge Agreement (the "Pledge Agreement"), dated as of November 16, 1998, between the Agency and the City and County of San Francisco (the "City"), approximately 20% of the total property tax increment (plus certain excess tax increment) generated by development in the Project Area is contractually dedicated to develop affordable housing units on parcels that the Owner will contribute to the Agency, to achieve the affordable housing program contemplated by the Plan.



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5. The South OPA requires the Owner to construct the public infrastructure directly related to each of the major phases in accordance with the incremental build-out of each project. Under the South OPA and the Pledge Agreement, the Agency is obligated to fund, repay or reimburse the Owner, subject to certain conditions, for the direct and indirect costs of constructing the infrastructure. The Agency has established a Community Facilities District ("CFD") for infrastructure in the Project Area. The Agency has also established a separate CFD to pay the costs of maintaining the public open space in the Project Area.
6. The South OPA provides that as a condition to any transfer of property in the Project Area, the Owner must obtain the agreement of the transferee to assume all of Owner's obligations under the South OPA with respect to the transferred parcels.
7. The Project Area includes an approximately 43-acre biomedical research and educational campus site (the "Campus Site") for the University of California, San Francisco ("UCSF"). UCSF has already invested about \$675 million on projects completed or underway on the Campus Site within the Plan Area and has plans to invest another \$225 million on projects in design.
8. The Regents of the University of California, a California public corporation ("The Regents") wishes to lease or acquire, and the Owner wishes to transfer Parcels 36, 37, 38 and 39 in the Project Area, comprising approximately 9.65 acres of land for the possible expansion of UCSF in Mission Bay (the "Expansion Parcels"). These parcels are not part of the 43 acres that the Plan originally designated as the Campus Site.
9. On November 30, 2004, The Regents released proposed amendments in draft form to its long range development plan, as LRDP Amendment #2. Those amendments contemplate an expansion of UCSF facilities onto the Expansion Parcels, including the possibility of developing by 2012 new integrated specialty Children's, Women's and Cancer hospitals containing about 210 beds, together with ambulatory and research facilities. In March 2005, The Regents approved LRDP Amendment #2 (the "Project") and certified a related final environmental impact report (the "LRDP #2 FEIR") which analyzed the environmental effects of the proposed UCSF development on the Expansion Parcels. Copies of the LRDP #2 FEIR are on file with the Agency Secretary.
10. The Owner and The Regents have entered into an Option Agreement and Grant of Option to Lease, dated as of January 1, 2005 (the "Option to Lease"), which provides that upon the satisfaction of certain conditions and the exercise by The Regents of its option (i) Catellus, as landlord, and The Regents, as tenant, will enter into a long-term ground lease of the Expansion Parcels (the "Lease") and (ii) the Owner and The Regents will at the same time enter into an Option Agreement and Grant of Option to Purchase (the

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- "Option to Purchase") under which The Regents will have an option to purchase the Expansion Parcels.
11. If The Regents exercises the Option to Lease within the option term, the Lease would allow for The Regents to develop up to 1,020,000 leasable square feet on the Expansion Parcels, provided that (a) any development of those parcels is the subject of further environmental review under the California Environmental Quality Act ("CEQA"), and (b) the Owner does not lose any of its entitled development potential for the balance of its land nor lose any of its other rights and privileges under the South OPA.
  12. Pursuant to Section 302 of the Plan, the development of the contemplated UCSF facilities on the Expansion Parcels is permitted as a subset of "Other Uses" as a secondary use. Such secondary uses are permitted provided that such use generally conforms with redevelopment objectives and planning and design controls established pursuant to the Plan and based on certain findings of consistency by the Agency's Executive Director (the "Consistency Findings"). The Executive Director has made the Consistency Findings, and such findings are hereby incorporated herein by this reference as if fully set forth.
  13. The City must make substantial improvements to San Francisco General Hospital ("SFGH") by 2013 and is evaluating a number of alternatives, including rebuilding on site and co-locating a new SFGH with new UCSF medical facilities in Mission Bay.
  14. As a State agency, The Regents is exempt under the State Constitution from local land use regulation and property taxes to the extent it uses property exclusively in furtherance of its educational mission.
  15. The Agency, City and The Regents negotiated a non-binding term sheet to guide the preparation of final transactional and related documents, such as a Disposition and Development Agreement ("DDA") for The Regents to acquire property for, and to construct and subsidize, affordable housing for low-income workers of UCSF, which DDA is being considered by the Agency Commission concurrently with this Resolution, pursuant to Resolution No. 160-2005, and provided terms for a Memorandum of Understanding regarding design standards and cooperation on the development of the Expansion Parcels (the "MOU"). The Agency Commission approved the non-binding term sheet on May 17, 2005 by Resolution No. 81-2005.
  16. The proposed MOU addresses, among other things: the potential loss of tax increment from the transfer of the Expansion Parcels to a tax-exempt entity; the obligations to build infrastructure associated with development on the Expansion Parcels; the potential assistance of UCSF in the planning of the co-location, if any, of SFGH with the new UCSF facilities; the standards for design review for construction on the Expansion Parcels; local hiring and



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equal opportunity for jobs associated with the development on the Expansion Parcels; and other matters designed to provide the Agency and City with significant public benefits.

17. Agency staff is recommending that the Agency Commission approve the MOU, and the associated Consistency Findings.
18. The Agency Commission has reviewed and considered the information contained in the LRDP #2 FEIR.
19. The Agency Commission hereby finds that the MOU is an action in furtherance of the implementation of the Project for purposes of compliance with CEQA.
20. By Resolution 175-2005, the Agency Commission adopted environmental findings related to the LRDP #2 FEIR, pursuant to CEQA and the CEQA Guidelines (the "Findings"). Such Findings are made pursuant to the Agency's role as the responsible agency under CEQA for the Project. The Findings are hereby incorporated herein by this reference as if fully set forth.

#### RESOLUTION

ACCORDINGLY, IT IS RESOLVED by the Redevelopment Agency of the City and County of San Francisco that the findings of consistency with the Mission Bay South Redevelopment Plan are approved and the Executive Director is authorized to execute the "Expansion of UCSF Facilities in Mission Bay South Redevelopment Project Area (Blocks 36-39) Memorandum of Understanding", substantially in the form lodged with the Agency General Counsel; Mission Bay South Redevelopment Project Area.

#### APPROVED AS TO FORM:

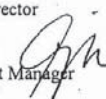
  
James B. Morales  
Agency General Counsel

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#### MEMORANDUM

126-03405-001  
October 12, 2005

To: Marcia Rosen  
Executive Director

From: Amy Neches   
Senior Project Manager

Re: Secondary Use Finding Recommendation for UCSF Hospital in Mission Bay South Redevelopment Area

Pursuant to a Term Sheet dated as of August 1, 2005 between the City, the Agency and The Regents of the University of California, which was endorsed by the Commission on May 17, 2005 (Resolution No. 81-2005), the Agency is considering agreements, including a Memorandum of Understanding ("MOU"), under which the University of California at San Francisco ("UCSF") may develop a hospital in the Mission Bay South Redevelopment Area ("Redevelopment Area").

The UCSF hospital would be located on Blocks 36-39 within the Commercial Industrial land use district of the Redevelopment Area, as described in the Mission Bay South Redevelopment Plan (the "Plan"). The UCSF hospital development may also include all or portions of Block X3 within the Commercial Industrial/Retail land use district. In both of these land use districts "public structure or use of a non-industrial character" is permitted as a subset of "Other Uses" as a secondary use.

The University of California, of which UCSF is a component, is a public body specifically created by the California Constitution. A hospital or medical center is described in §790.44 of the San Francisco Planning Code as a "public or private institutional use which provides medical facilities for inpatient care, medical offices, clinics, and laboratories." The proposed UCSF hospital development will include these components. The hospital will not include manufacturing, warehousing, or distribution of goods, and can reasonably be considered a "non-industrial use." This interpretation is supported by the San Francisco Planning Code, under which hospitals are permitted as a conditional use in all C districts and NC-3 districts.

Section 302 of the Plan provides as follows:

"Secondary uses shall be permitted in a particular land use district...provided that such use generally conforms with redevelopment objectives and planning and design controls established pursuant to this Plan and is determined by the Executive Director to make a positive contribution to the character of the Plan Area, based on



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a finding of consistency with the following criteria: the secondary use, at the size and intensity contemplated and at the proposed location, will provide a development that is necessary or desirable for, and compatible with, the neighborhood or the community."

Staff believes that the UCSF hospital is appropriate as a secondary use, based on the following:


- 1) The proposed hospital will be located on approximately 10 to 14 acres of land adjacent to the Mission Bay UCSF research campus that have been determined to be blighted and are affected by environmental contamination. UCSF plans close integration of its basic academic research activities with the teaching, research and patient care activities within the planned hospital. The plan for development of the UCSF hospital generally conforms to the Redevelopment Project Objectives as described in §103 of the Plan, particularly with objective A of eliminating blight and correcting environmental deficiencies, and objective B of retaining and promoting UCSF's research and academic activities within the City and County of San Francisco.
- 2) Under the MOU, the UCSF hospital development will generally conform to the planning and design controls established pursuant to the Plan, including the street layout, setbacks, and streetscape plan. To accommodate the needs of the hospital, the MOU will include specific adjustments to the existing height and bulk standards of the Commercial Industrial and Commercial Industrial/Retail land use zones of the Mission Bay South Design for Development. These changes will lower the maximum height of a hospital to 105 feet, compared to the existing 160 foot limit, but would allow for somewhat greater bulk in the mid-rise area. These changes have been studied and presented to the public at two well-noticed public meetings. In staff's opinion, the proposed adjustments represent reasonable variation from the existing standards, which will have little if any negative effect on the surrounding community in the context of overall Mission Bay development.
- 3) The hospital will contain no more development, as calculated under the Plan in leasable square feet, than would have been permitted under the principal uses permitted in these land use districts, and there will be no net increase in the overall size of development within the Redevelopment Area. The hospital will be developed on parcels that would otherwise likely have been developed with commercial office or life science/biotechnology uses. These uses would have been constructed in buildings of reasonably similar size and appearance as the proposed hospital use.
- 4) The proposed hospital will allow UCSF to continue to provide needed tertiary health care to the residents of San Francisco in a modern seismically safe hospital, and will assist UCSF in furthering its research and academic mission.

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Based on these factors, staff believes that it is appropriate to make the finding of consistency cited above, and recommends that the Executive Director permit the development of the UCSF hospital as a secondary use in Mission Bay, subject to the approval of the MOU by the Commission.

Approved on October 12, 2005:

  
Marcia Rosen  
Executive Director



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November 2, 2015 [2 of 2]

By personal delivery at Nov. 3, 2015, hearing to:	By email to: <a href="mailto:warriors@sfgov.org">warriors@sfgov.org</a> :
Commission on Community Investment and Infrastructure Attn: Claudia Guerra, Commission Secretary Office of Community Investment and Infrastructure 1 South Van Ness Avenue, 5th Floor San Francisco, CA 94103  and email to: <a href="mailto:claudia.guerra@sfgov.org">claudia.guerra@sfgov.org</a>	Ms Tiffany Bohee OCII Executive Director c/o Mr. Brett Bollinger San Francisco Planning Department 1650 Mission Street, Suite 400 San Francisco, CA 94103

**Re: Warriors Arena Project: Violation of Variance Requirement.**

Dear Ms Bohee and Mr. Bollinger:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project"). The Mission Bay Alliance objects to approval of this Project and certification of the Project SEIR.

I write today regarding the OCII's failure to require a variance or "variation" for this Project under section 305 of the Mission Bay South Redevelopment Plan ("Plan"). The November 2, 2015, letter from Susan Brandt-Hawley, my co-counsel for the Alliance, demonstrates this Project is not an allowable secondary use under the Plan. Thus, a variance is not available because, as shown by Brandt-Hawley, the Project "will change the land uses on this Plan." (Plan, § 305.) However, in the alternative, if the Project is an allowable secondary use under the Plan, then the OCII must process this Project application as a variance and make the findings required by Plan section 305 before Project approval.

Both California and San Francisco planning law provide a process for landowners to obtain a "variance" from the "uniformity" of zoning limits that, while appropriate for the zone district in general, would impose undue hardship due to unique characteristics of a specific parcel. Government Code section 65906 governs the grant of zoning variances by municipalities and prohibits local agencies from granting "special privileges" to individual landowners. Similarly, San

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Commission on Community Investment and Infrastructure  
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Francisco Planning Code, section 305, subdivision (a), provides that a variance permit must be approved for any exception to the requirements of the Planning Code. Subdivision (c) thereof mirrors the requirements of state law, and requires a finding that "owing to such exceptional or extraordinary circumstances the literal enforcement of specified provisions of this Code would result in practical difficulty or unnecessary hardship ...."

Similarly, the Plan includes a variance provision that reflects the same substantive requirements as Government Code section 65906 and Planning Code section 305:

The Agency may modify the land use controls in this Plan where, owing to unusual and special conditions, enforcement would result in undue hardships or would constitute an unreasonable limitation beyond the intent and purposes of these provisions. Upon written request for variation from the Plan's land use provisions from the owner of the property, which states fully the grounds of the application and the facts pertaining thereto, and upon its own further investigation, the Agency may, in its sole discretion, grant such variation from the requirements and limitations of this Plan. The Agency shall find and determine that the variation results in substantial compliance with the intent and purpose of this Plan, provided that in no instance will any variation be granted that will change the land uses on this Plan.

(Plan, § 305.)

Because the Plan's variance provision imposes virtually identical requirements as Planning Code section 305, both apply. (Plan, §'s 101 ["Regardless of any future action by the City or the Agency, whether by ordinance, resolution, initiative or otherwise, the rules, regulations, and official policies applicable to and governing the overall design, construction, fees, use or other aspect of development of the Plan Area shall be (i) this Plan and the other applicable Plan Documents, (ii) to the extent not inconsistent therewith or not superseded by this Plan, the Existing City Regulations and (iii) any new or changed City Regulations permitted under this Plan"]; 304.9.C.(iv)).

Here, the Project creates at least sixteen inconsistencies with the Design for Development (D4D). The OCII now proposes to amend the D4D, the Owner's Participation Agreement (OPA), and other Plan documents to resolve these inconsistencies by, including but not limited to, raising maximum height limits from 90 to 135 feet, allowing a second 160+ foot tower, increasing bulk limits to accommodate the arena, and changing arena setbacks, street wall heights, view corridors, public rights of way, and parking standards. (See e.g., Draft SEIR, pp. 4-7 - 4-9, § 4.2.4; Proposed Resolution 2015, exhibit A; Memorandum to the OCII from Executive Director Tiffany Bohee for Items 5(a), 5(b), 5(c), 5(d) & 5(e) the November 3, 2015, CCII meeting agenda, pp. 4, 22.)

Even if the Project's land uses are allowable secondary uses, these amendments "modify the land use controls in this Plan" as provided in Plan section 305. But the Project Sponsor has made



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no showing that due to “unusual and special conditions, enforcement would result in undue hardships or would constitute an unreasonable limitation beyond the intent and purposes of these provisions.” (Plan, § 305.)

“Variances are, in effect, constitutional safety valves to permit administrative adjustments when application of a general regulation would be confiscatory or produce unique injury.” (Curtin’s California Land Use and Planning Law, p. 55.) Variance requirements also implement the State Planning and Zoning Law’s requirement of “uniformity” of zoning rules within zoning districts. (See Gov. Code, § 65852 [“All such [zoning] regulations shall be uniform for each class or kind of building or use of land throughout each zone, but the regulation in one type of zone may differ from those in other types of zones.”] *Neighbors in Support of Appropriate Land Use v. Cnty. of Tuolumne* (2007) 157 Cal.App.4th 997, 1008 (*Neighbors*).) The State Planning and Zoning Law also requires vertical consistency between local agencies general plans, zoning ordinances, and land use permits. (Gov. Code, § 65860, subd. (c) [“County or city zoning ordinances shall be consistent with the general plan of the county or city...”]; see *DeVita v. Cnty. of Napa* (1995) 9 Cal.4th 763, 772 [“A general plan is a ‘constitution’ for future development [citation omitted] located at the top of ‘the hierarchy of local government law regulating land use’”].)

California courts have vigorously enforced the requirements for granting a variance, and have developed extensive jurisprudence to corral the many stratagems local agencies have used to avoid its requirements. (See e.g., *Topanga Association v. County of Los Angeles* (1974) 11 Cal.3d 506, 511-12 (*Topanga*); *Orinda Assn. v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1166 (*Orinda Assn*) [“A zoning scheme, after all, is similar in some respects to a contract ... If the interest of these parties in preventing unjustified variance awards for neighboring land is not sufficiently protected, the consequence will be subversion of the critical reciprocity upon which zoning regulation rests...”].)

Variance findings must focus on a comparison of the subject property to other properties in the zone district with which the variance is intended to bring it into parity, and the benefits to the community or “public interest” associated with a zoning exception are irrelevant. (*Orinda Assn, supra*, at p. 1166.) By amending the Plan documents to accommodate this Project, the OCII would cast these requirements aside and grant a “special privilege” to this Project Sponsor.

In *Neighbors*, rather than adopt a rezone or grant a variance, the County created a special exception to the zoning ordinance for one landowner by including it in a development agreement adopted under the development agreement law. (*Neighbors, supra*, 157 Cal.App.4th at p. 1003.) In rejecting this stratagem, the Court in *Neighbors* noted that there are limits on the power to rezone: “The foundations of zoning would be undermined, however, if local governments could grant favored treatment to some owners on a purely ad hoc basis ... [R]ezoning, even of the smallest parcels, still necessarily respects the principle of uniformity.” (*Id.* at pp. 1009-10.)

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A similar result occurred in *Trancas Prop. Owners Assn. v. City of Malibu* (2006) 138 Cal.App.4th 172 (*Trancas*). In *Trancas*, the court held an exemption from a city’s zoning requirements accomplished by contract functionally resembled a variance, and held that “such departures from standard zoning by law require administrative proceedings, including public hearings ... followed by findings for which the instant [density] exemption might not qualify... Both the substantive qualifications and the procedural means for a variance discharge public interests. Circumvention of them by contract is impermissible.” (*Id.* at p. 182.)

In sum, the OCII’s proposed grant of zoning exceptions to this Project by way of amending the Plan documents rather than by variance violates the Plan, the variance requirements of the San Francisco Planning Code and state law, and the uniformity requirement of state law.

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

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### Office Development Annual Limitation ("Annual Limit") Program

The Office Development Annual Limit (Annual Limit) Program became effective in 1985 with the adoption of the Downtown Plan Amendments to the Planning Code (Sections 320-325) and was subsequently amended by Propositions M (1986) and C (1987). The Program defines and regulates the allocation of any office development project that exceeds 25,000 gross square feet (gsf) in area.

A total of 950,000 gsf of office development potential becomes available for allocation in each approval period, which begins on October 17th every year. Of the total new available space, 75,000 gsf is reserved for Small Allocation projects (projects with between 25,000 and 49,999 gsf of office space), and the remaining 875,000 gsf is available for Large Allocation projects (projects with at least 50,000 gsf of office space). Any available office space not allocated in a given year is carried over to subsequent years.

This document reflects the status of the Annual Limit Program, including current availability and summaries of previously approved and pending projects.

Information in this document was last updated on **September 1, 2015**. Inquiries should be directed to Corey Teague at (415) 575-9081 or corey.teague@sfgov.org.

#### Summary of Key Figures

	Current Availability	Pending Availability	Pipeline Availability
<b>Small Allocation Projects</b> (<50,000 gsf of office space)	<b>1,188,805 gsf</b> Current total square footage available for allocation.	<b>903,255 gsf</b> Currently available square footage less 285,550 gsf of pending* projects.	<b>776,280 gsf</b> Currently available square footage less 285,550 gsf of pending* projects and 126,975 gsf of pre-application** projects.
<b>Large Allocation Projects</b> (≥50,000 gsf of office space)	<b>1,429,763 gsf</b> Current total square footage available for allocation.	<b>-1,676,791 gsf</b> Currently available square footage less 3,108,554 gsf of pending* projects.	<b>-8,529,408 gsf</b> Currently available square footage less 3,108,554 gsf of pending* projects and 6,850,617 gsf of pre-application** projects.

\* A 'pending project' is one for which an office allocation application has been submitted but not yet acted upon.

\*\* A 'pre-application' project is one for which an environmental review application, preliminary project assessment application, or other similar application has been submitted but for which no office allocation application has yet been submitted.

### EXHIBIT 3

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### PENDING OFFICE PROJECTS\*

\*Projects that have submitted an application (B or OFA) pursuant to Planning Code Section 321 (Office Development Annual Limit) but on which no Commission action has yet occurred.

Small Office Cap					
Case No.	Address	Sq. Ft.	Status	Staff	Comments
2009.0065	3433 Third Street	49,229	B filed 1/27/09	Julian Banales	New 5-story office building for Carpenter's Union on vacant lot. May be cancelled due to inactivity (2/18/14).
2014.0567	2101 Mission Street	48,660	B filed on 4/17/14	Brittany Bendix	Legalize change of use from retail and warehouse to office. Planning Commission hearing scheduled for 9/3/15.
2012.1410	77-85 Federal Street	49,730	B filed on 6/5/14	Scott MacPherson	Demo two existing office buildings and construct a 5-story building with ground floor retail and office above.
2015-000509	1125 Mission Street	37,944	B filed on 1/15/15	Julian Banales	Change of use from auto repair.
2014.1315	135 Townsend Street	49,995	B filed on 3/11/15	Rich Sucre	Conversion of existing self storage building.
2013.1511	360 Spear Street (aka 100 Harrison St)	49,992	B filed on 4/3/15	Rich Sucre	Partial conversion of existing ISE.
<b>Subtotal</b>		<b>285,550</b>			

Large Office					
Case No.	Address	Sq. Ft.	Status	Staff	Comments
2012.0640	598 Brannan Street	700,456	B filed on 10/24/12	Elizabeth Puri	Demo of 2 industrial buildings; 2 new office buildings (Central SolMa Project).
2013.1545	645 Harrison Street	99,698	B filed on 7/18/13	Kimberly Durandet	LoD confirmed 14,520gsf as existing legal office space. Revised proposal to convert additional 99,698gsf, plus retain 33,758gsf of PDR on first and second floors.
2013.1593	2 Henry Adams	245,697	B filed on 2/6/14	Rich Sucre	Owner-initiated Article 10 Landmark designation and an Office Allocation. Eligible area limited by recent legislation.
2011.0409	925 Mission Street	803,300	B filed on 8/19/14	Kevin Guy	"SM" Project. Planning Commission informational hearing scheduled for 9/3/15.
2006.1523	50 First Street	1,050,000	B filed on 6/4/14	Kevin Guy	Demo and construction of a mixed-use building with two towers.
2014-002701	GSW Development	0	B filed on 12/12/14	David Winslow	Design approval only. Allocation already approved in Alexandria District.
2014.1063	633 Folsom Street	89,804	B filed on 12/23/14	Mark Luellen	Four story office addition to existing seven story building.
2014.0154	1800 Mission Street	119,599	OFA filed on 1/27/15	Rich Sucre	Conversion in the Armory.
<b>Subtotal</b>		<b>3,108,554</b>			

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# **PRE-APPLICATION OFFICE PROJECTS\***

\*Projects that have submitted for initial Department review (e.g. environmental review (EE) or Preliminary Project Assessment (PPA)), but have not submitted an application pursuant to Planning Code Section 321 (Office Development Annual Limit).

Small Office Cap					
Case No.	Address	Sq. Ft.	Status	Staff	Comments
2014.1616	1200 Van Ness Ave	27,000	PPA issued 1/14/15.	Mary Woods	Exact office square footage TBD.
2015-010219	462 Bryant Street	49,995	PPA filed on 8/12/15.		An existing single story office building and basement will remain, and five stories of new office space will be added (approximately 49,995 gsf of new office space).
2015-010374	598 Bryant Street	49,980	PPA filed on 8/12/15.	Kansai Uchida	Demo existing gas station and construct a 9-story mixed-use office building with underground parking.
<b>Subtotal</b>		<b>126,975</b>			

Large Office Cap					
Case No.	Address	Sq. Ft.	Status	Staff	Comments
2005.0759	725-735 Harrison	730,940	PPA letter issued 5/16/2013. Revised EE pending.	Debra Dwyer	"Harrison Gardens" (Central SoMa Project). Original proposal changed to office per 2/21/13 application amendment.
2014.0416	610-620 Brannan Street	561,065	EE filed 6/19/14	Elizabeth Puri	Demo and new 11-story mixed use bldg (Central SoMa Project).
2013.0478	559 6th Street	123,972	PPA issued on 6/17/13. PPA expired on 12/17/14.	Kimia Haddadan	Demolish 3 bldgs and construct a mixed-use project (Central SoMa Project)
2013.0970	Pier 70 (Forest City Only)	1,810,000	EE filed on 11/10/14.	Andrea Contreras	SF Port project
n/a	2525 16th Street	60,980	Legitimization request filed 11/30/12	Corey Teague	EN Legitimization
2014.0858	565-585 Bryant Street	188,280	PPA issued on 7/25/14	Jeremy Shaw	Demo four existing bldgs and construct an 11-story mixed-use bldg. 2nd PPA proposes only 46,990sf of office (Central SoMa Project).
2014.0405	330 Townsend Street	394,300	PPA issued on 5/15/14	Steve Wertheim	Demo existing bldg and construct a 21-story office bldg. 2nd PPA proposes only 212,300sf of office (Central SoMa Project).
2013.0208	SWL 337 ("Mission Rock")	1,300,000	EE filed on 6/4/13	Josh Switzky	Large mixed-use project on Port property.
2015-004256	630-698 Brannan St	1,512,260	PPA issued on 7/24/15. EE filed 7/24/15.	Lisa Chen	Flower Mart replacement project (Central SoMa Project). Two Previous PPAs. 2015-001903 analysed proposed 1,492,450gsf. 2013.0370 was under different ownership, only included Lot 5, and analysed 655,150gsf.

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2014.1208	1500 Mission Street	0	EE filed on 10/23/14	Chelsea Fordham	Demo and new construction of mixed use bldg with 462,800gsf of <b>City</b> office space.
2015-009704	505 Brannan Street	168,820	PPA filed on 7/27/15	Steve Wertheim	"Phase II" addition (165', 11 stories) of office space onto an approved 85' "Phase I" office building approved by the Planning Commission on 12/11/14. With this newly planned addition, total building height would now be 250' and contain a total of 306,266 sf.
<b>Subtotal</b>		<b>6,850,617</b>			

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ANNUAL LIMIT FOR "SMALL" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: **1,188,805**

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Small" Office Annual Limit	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
1985-1986	0	75,000	75,000	No Projects	N/A	0	0	
1986-1987	75,000	75,000	150,000	1199 Bush	1985,244	46,645	46,645	
1987-1988	103,355	75,000	178,355	3235-18th Street	1988,349	45,350	45,350	aka 2180 Harrison Street
1988-1989	133,005	75,000	208,005	2601 Mariposa	1988,568	49,850	49,850	
1989-1990	158,155	75,000	233,155	No Projects	N/A	0	0	
1990-1991	233,155	75,000	308,155	No Projects	N/A	0	0	
1991-1992	308,155	75,000	383,155	1075 Front	1990,568	32,000	32,000	
1992-1993	351,155	75,000	426,155	No Projects	N/A	0	0	
1993-1994	426,155	75,000	501,155	No Projects	N/A	0	0	
1994-1995	501,155	75,000	576,155	No Projects	N/A	0	0	
1995-1996	576,155	75,000	651,155	No Projects	N/A	0	0	
1996-1997	651,155	75,000	726,155	No Projects	N/A	0	0	
1997-1998	726,155	75,000	801,155	No Projects	N/A	0	0	
1998-1999	801,155	75,000	876,155	1301 Sansome	1998,362	31,606	31,606	
1999-2000	844,549	75,000	919,549	435 Pacific	1998,369	32,500		
				2801 Leavenworth	200,459	40,000		
				215 Fremont	1998,497	47,950		
				845 Market	1998,090	49,100	169,550	
2000-2001	749,999	75,000	824,999	530 Folsom	2000,967	45,944		
				35 Stanford	2000,1162	48,000		
				2800 Leavenworth	2000,774	34,945		
				500 Pine	2000,539	44,450	173,339	See also 350 Bush Street - Large
2001-2002	651,660	75,000	726,660	No Projects	N/A	0	0	
2002-2003	726,660	75,000	801,660	501 Folsom	2002,0223	32,000	32,000	
2003-2004	769,660	75,000	844,660	No Projects	N/A	0	0	
2004-2005	844,660	75,000	919,660	185 Berry Street	2005,0106	49,000	49,000	
2005-2006	870,660	75,000	945,660	No Projects	N/A	0	0	
2006-2007	945,660	75,000	1,020,660	No Projects	N/A	0	0	
2007-2008	1,020,660	75,000	1,095,660	654 Minnesota	no case number	43,939	0	UCSF
2008-2009	1,095,660	75,000	1,170,660	No Projects	N/A	0	0	
2009-2010	1,170,660	75,000	1,245,660	660 Alabama Street	2009,0847	39,691	39,691	
2010-2011	1,205,969	75,000	1,280,969	No Projects	N/A	0	0	
2011-2012	1,280,969	75,000	1,355,969	208 Utah / 201 Potrero	2011,0468	48,732		EN Legitimization

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O-MBA24L9

ANNUAL LIMIT FOR "SMALL" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: **1,188,805**

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Small" Office Annual Limit	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
				808 Brannan Street	2012,0014	43,891		EN Legitimization
				275 Brannan Street	2011,1410	48,500		
				385 7th/1098 Harrison	2011,1049	42,039		EN Legitimization
				375 Alabama Street	2012,0128	48,189	231,341	EN Legitimization
2012-2013	1,124,628	75,000	1,199,628	No Projects	N/A	0	0	
2013-2014	1,199,628	75,000	1,274,628	3130 20th Street	2013,0992	32,081		
				660 3rd Street	2013,0627	40,000	72,081	
2014-2015	1,202,547	75,000	1,277,547	340 Bryant Street	2013,1600	47,536		
				101 Townsend Street	2014-002385	41,206	88,742	
				<b>Total</b>		<b>1,105,134</b>		

<sup>1</sup> Each approval period begins on October 17

<sup>2</sup> Carried over from previous year

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O-MBA24L9

ANNUAL LIMIT FOR "LARGE" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,429,763

Approval Period	Unallocated Sq. Ft.	"Large" Office Annual Limit	Reduction per Section 321.1	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
1985-1986	0	875,000	(475,000)	400,000	No Projects	N/A	0	0	
1986-1987	400,000	875,000	(475,000)	800,000	600 California	1986.085	318,000		
					235 Pine	1984.432	147,500		
					343 Sansome	1985.079	160,449	625,979	
1987-1988	174,021	875,000	(475,000)	574,021	No Projects	N/A	0	0	
1988-1989	574,021	875,000	(475,000)	974,021	No Projects	N/A	0	0	
1989-1990	974,021	875,000	(475,000)	1,374,021	100 California	1987.813	195,503	195,503	
1990-1991	1,178,518	875,000	(475,000)	1,578,518	No Projects	N/A	0	0	
1991-1992	1,578,518	875,000	(475,000)	1,978,518	300 Howard	1989.589	382,582	382,582	aka 199 Fremont Street
1992-1993	1,995,936	875,000	(475,000)	1,995,936	No Projects	N/A	0	0	
1993-1994	1,995,936	875,000	(475,000)	2,395,936	No Projects	N/A	0	0	
1994-1995	2,395,936	875,000	(475,000)	2,795,936	No Projects	N/A	0	0	
1995-1996	2,795,936	875,000	(475,000)	3,195,936	No Projects	N/A	0	0	
1996-1997	3,195,936	875,000	(475,000)	3,595,936	101 Second	1997.484	368,800	368,800	aka One Second Street
1997-1998	3,227,136	875,000	(37,582)	4,064,554	55 Second Street	1997.215	283,301		aka 275 Sacramento Street
					244-256 Front	1996.643	58,160		aka 699-08th Street
					650 Townsend	1997.787	269,680		State office building - see also Case No. 1993.707
					455 Golden Gate	1997.478	420,000		
					945 Battery	1997.874	52,715		
					475 Brannan	1997.470	61,000		
					250 Stewart	1998.144	540,000	1,685,346	aka 2 Folsom/250 Embarcadero
					One Market	1998.136	51,822		
1998-1999	2,379,208	875,000	0	3,254,208	Pier One	1998.646	88,350		Port office building
					554 Mission	1998.321	645,000		aka 560/584 Mission Street
					700 Seventh	1999.167	273,650		aka 625 Townsend Street
					475 Brannan	1999.566	2,500	1,061,322	addition to previous approval - 1997.478
1999-2000	2,192,886	875,000	0	3,067,886	670 Second	1999.106	60,000		
					160 King	1999.027	176,000		
					350 Rhode Island	1998.714	250,000		
					First & Howard	1998.902	854,000		First & Howard bldg #2 (405 Howard), #3 (505-525 Howard) & #4 (500 Howard)
					235 Second	1999.176	180,000		
					500 Terry Francois	2000.127	280,000		Mission Bay 26a
					550 Terry Francois	2000.329	225,004		Mission Bay 28
					899 Howard	1999.583	153,500	2,178,504	
2000-2001	889,382	875,000	0	1,764,382	First & Howard	1998.902	295,000		First & Howard bldg #1 (400 Howard)
					550 Terry Francois	2000.1293	60,150	355,150	Additional allocation (see also 2000.329)
2001-2002	1,409,232	875,000	0	2,284,232	350 Bush	2000.541	344,500		See also 500 Pine Street - Small
					38-44 Tehama	2001.0444	75,000		

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O-MBA24L9

ANNUAL LIMIT FOR "LARGE" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,429,763

Approval Period	Unallocated Sq. Ft.	"Large" Office Annual Limit	Reduction per Section 321.1	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
					235 Second	2000.319	64,000		modify 1999.176
					250 Brannan	2001.0689	113,540		
					555 Mission	2001.0798	548,000		
					1700 Owens	2002.0300	0"	1,148,040	Alexandria District - West Campus (160,100)
2002-2003	1,138,192	875,000	0	2,013,192	7th & Mission GSA	No Case	514,727	514,727	Federal Building
2003-2004	1,408,465	875,000	0	2,273,465	Presidio Dig Arts	No Case	839,301	839,301	Presidio Trust
2004-2005	1,534,164	875,000	0	2,409,164	No Projects	N/A	0	0	
2005-2006	2,409,164	875,000	0	3,284,164	201 16th Street	2006.0384	430,000	430,000	aka 1409/1499 Illinois
2006-2007	2,854,164	875,000	0	3,729,164	1500 Owens	2006.1212	0"		Alexandria District - West Campus (158,500)
					1455 Third Street/455 Mission Bay South Blvd/450 South Street	2006.1509	0"		Alexandria District - North Campus (228,000)
					1515 Third Street	2006.1536	0"		Alexandria District - North Campus (373,487)
					660 Townsend	2005.1062	375,151		Alexandria District - North Campus (202,893)
					120 Howard	2006.0616	67,931		
					535 Mission	2006.1273	293,750	736,832	
2007-2008	2,992,332	875,000	0	3,867,332	100 California	2006.0660	76,500		Additional allocation for First & Howard Building #3
					505-525 Howard	2008.0001	74,500		Redevelopment - Yerba Buena
					680 Folsom Street	No Case	117,000		Establishes Alexandria Mission Bay Life Sciences and Technology Development District ("Alexandria District") for which previously allocated office space and future allocations would be limited to 1,350,000 sq ft to be distributed among designated buildings within district.
					Alexandria District	2008.0850	1,122,980		Alexandria District - East Campus (312,932)
					600 Terry Francois	2008.0484	0"		

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O-MBA24L9

ANNUAL LIMIT FOR "LARGE" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,429,763

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Large" Office Annual Limit <sup>2</sup>	Reduction per Section 321.1	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
					650 Terry Francois	2008.0483	0"		Alexandria District - East Campus (291,367)
					1450 Owens	2008.0690	0"	1,390,986	Alexandria District - West Campus (61,581)
2008-2009	2,476,352	875,000	0	3,351,352	No Projects	N/A	0	0	
2009-2010	3,351,352	875,000	0	4,226,352	850-870 Brannan Street	2009.1026	138,560		aka 888 Brannan Street
					222 Second Street	2006.1106	430,650	569,230	LEED
2010-2011	3,657,122	875,000	0	4,532,122	350 Mission Street	2006.1524	340,320		
					Alexandria District	n/a	200,000		under terms of Motion 17709
					Treasure Island	2007.0903	0	540,326	Priority Resolution Only
2011-2012	3,991,802	875,000	0	4,866,802	Alexandria District	n/a	27,020		under terms of Motion 17709
					850-870 Brannan St.	2011.0583	113,753		aka 888 Brannan Street
					444 DeHaro St	2012.0041	90,500		
					460-462 Bryant St	2011.0895	59,475		
					185 Berry St	2012.0409	101,362		aka China Basin Landing
					120 Potrero Ave	2012.0371	70,070		EN Legitimization
					601 Townsend Street	2011.1147	72,600	535,400	EN Legitimization
2012-2013	4,331,402	875,000	0	5,206,402	101 1st Street	2012.0257	1,370,577		Transbay Tower; aka 425 Mission new office/residential building
					181 Fremont Street	2007.0456	404,000		EN Legitimization
					1550 Bryant Street	2012.1046	108,359		CPMC Cathedral Hill MOB
					1100 Van Ness Ave	2009.0885	242,987		CPMC St. Luke's MOB
					3615 Cesar Chavez	2009.0886	84,799		
					345 Brannan Street	2007.0385	102,285		
					270 Brannan Street	2012.0799	189,000		
					333 Brannan Street	2012.0906	175,450		
					350 Mission Street	2013.0276	79,680		Salesforce (No. 2)
					999 Brannan Street	2013.0585	143,292		EN Legitimization - Dolby
					1800 Owens Street	2012.1482	700,000	3,610,469	Mission Bay Block 40
2013-2014	1,595,933	875,000	0	2,470,933	300 California Street	2012.0605	56,459		
					665 3rd Street	2013.0226	123,700		
					410 Townsend Street	2013.0544	76,000		
					888 Brannan Street	2013.0493	10,000		AirBnB - See Also 2011.0583B
					81-85 Bluxome Street	2013.0007	55,000	321,159	
2014-2015	2,149,774	875,000	0	3,024,774	801-505 Brannan Street	2012.1187	137,446		
					100 Hooper Street	2012.0203	284,471		
					390 Main Street	n/a	137,286		MTC Project - Verified on 4/14/15
					250 Howard Street	2014-002085	766,745		aka Transbay Block 5 (195 Beale St)
					510 Townsend Street	2014.0679	260,063	1,595,011	
					Total		19,662,655		

<sup>1</sup> Each approval period begins on October 17

O-MBA24L9

ANNUAL LIMIT FOR "LARGE" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,429,763

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Large" Office Annual Limit <sup>2</sup>	Reduction per Section 321.1	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
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<sup>1</sup> Carried over from previous year

<sup>2</sup> Excludes 75,000 sqft dedicated to "small" projects per Section 321(b)(4)



O-MBA24L9

SMALL OFFICE APPROVALS - STATUS OF ALL PROJECTS

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
1989-1987	1989-244	1189 Bush	0282-031	48,843	11528	complete	1991	St. Francis Hospital
1987-1988	1988-349	5235 18th Street	091030	45,350	11461	complete	1991	PG&E aka 2189 Harrison Street
1988-1989	1988-588	1801 Mariposa	4016-001	49,850	11588	complete	1991	NGED
1988-1989	1988-287	1501 Bond	7555-002	39,000	11587	doesn't count	n/a	revoked 12/00
1988-1990								
1990-1991	1990-238	160 Pacific	0166-006	45,718	13114	doesn't count	n/a	revoked 12/00
1991-1992	1990-568	1075 Front	0111-001	32,000	13381	complete	1993	revoked 12/00
1991-1992	1987-847	801 Duboce	3539-001	36,000	13254	doesn't count	n/a	revoked 12/00
1992-1993								No Projects Approved During Allocation Period
1993-1994								No Projects Approved During Allocation Period
1994-1995								No Projects Approved During Allocation Period
1995-1996								No Projects Approved During Allocation Period
1996-1997								No Projects Approved During Allocation Period
1997-1998								No Projects Approved During Allocation Period
1998-1999	1998-362	1301 Sansome	0085-005	31,600	14784	complete	1999	
1999-2000	1998-369	435 Pacific	0176-008	22,500	14871	complete	2003	
1999-2000	2000-458	1801 Larkin	0110-001	40,000	15522	complete	2001	The Cannery
	1998-487	215 Fremont	3738-012	47,850	15839	complete	2002	
1999-2000	1998-688	2434 Fellows	3738-111	49,850	15887	doesn't count	n/a	approved as large project
	1998-090	845 Market	3705-00-18 (into 3705-049)	49,100	15949	complete	2006	Boomerang's 18mos exp 8/15/02 - CPC approved conversion to residential submitted on 8/24/01 - 8/4/08 CPC approves conversion to Residential (M17888) - Revoked on 1/23/09
2000-2001	1999-821	178 Townsend	3788-012	49,002	16025	doesn't count	n/a	
	2000-987	133 Fulton	3738-017	45,844	16023	complete	2006	
	1999-309	172 Main	3739-006	46,500	16049	doesn't count	n/a	18mos exp 8/15/02 - permit 20000218881 (1801 2006 - 12/15/08 - Building Permit Application No. 20001115470 issued for demolition of two buildings on property. To be used for temp Transbay facility. REVOCATION LETTER ISSUED 3/16/09
2000-1182	25 Stanford	3788-038	48,000	16070	complete	2007		
2000-774	2801 Larkin	007008	34,940	16071	complete	2001		The Anchorage
2000-582	189 New Montgomery	3722-021	49,345	16104	doesn't count	n/a		revoked 12/05
2000-1289	3433 Third	5203-23	42,000	16107	doesn't count	n/a		building permit application no. 200011014657 withdrawn on 11/9/06. REVOCATION LETTER ISSUED 9/25/07

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O-MBA24L9

SMALL OFFICE APPROVALS - STATUS OF ALL PROJECTS

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
1999-795	177 Townsend	3784-47	46,775	16122	doesn't count	n/a		revoked 18/05
2000-539	500 Pine	258-4 to 9033	44,450	16113	approved	n/a		18mos exp 9/15/02 - CPC received project status update on 10/11/07 (project is associated with 359 Bush Street - Large Office Approval). Building permit application no. 200011024683 approved by CPB on 8/4/08. Building permit application no. 20000275338 submitted for shoring work (8/4/08 - under review by DPW-BSM)
2000-988	450 Powell	327-22	39,174	23	doesn't count	n/a		time limit for construction extended (see Case No. 2002-03638). Project converted to residential use (see Case No. 2006-1299)
1999-281	105 Barry	3603-009	49,500	16143	doesn't count	n/a		see approval 2005
2000-180	201 Second	3736-007	44,500	16148	doesn't count	n/a		converted to residential use
2000-860	35 Hawthorne	3735-047	40,350	16174	doesn't count	n/a		converted to residential use - see 2004-0852 and building permit application no. 20050908299
2000-122	48 Tehama	084085	49,300	16235	doesn't count	n/a		revoked at Planning Commission hearing on 6/9/11
2000-723	639 Second	005867-371	49,500	16241	doesn't count	n/a		revoked 1/6/05
1999-423	299 Second	3769	68,500	16240	doesn't count	n/a		revoked 1/10/05
2001-2002	2001-0050	5251 18th Street	3621-018	49,600	16451	doesn't count	n/a	6/28/07 - building permit application no. 200706380460 submitted to revise project and reduce office space to approx. 10,000 sq. ft. - REVOCATION LETTER ISSUED 8/16/07
2002-2003	2002-0229	201 Fulton Street	3742-001	32,000	16516	complete	2006	
2003-2004	2003-0108	186 Barry Street	3603-006	49,000	17070	complete	2008	No Projects Approved During Allocation Period
2004-2005	No Case	954 Minnesota	3342-003 & 004	43,939	none	complete	2009	No Projects Approved During Allocation Period
2006-2007	No Case	954 Minnesota	3342-003 & 004	43,939	none	complete	2009	Confirmed by UCSF via 7/13/2007 letter from UCSF and associated LCO
2007-2008	No Case	954 Minnesota	3342-003 & 004	43,939	none	complete	2009	No Projects Approved During Allocation Period
2008-2009	2008-1294	110 The Embarcadero	3715-002	41,840	17804	doesn't count	n/a	18mos exp 7/14/10 - E appealed to Roll and overturned on 11/10/09. Application withdrawn and case closed on 12/20/09
2009-2010	2009-0847	660 Alabama Street	4020-002	39,691	17973	complete	2011	CPC for building permit application no. 201001144798 issued on 3/29/11
2010-2011	2010-0468	208 Utah / 201 Potrero	3632-017	48,732	18608	complete	2012	No Projects Approved During Allocation Period
2011-2012	2011-0468	208 Utah / 201 Potrero	3632-017	48,732	18608	complete	2012	BPA No. 20120506093
2012-2013	2012-0014	408 Franklin Street	3789-040	43,861	18659	complete	2013	BPA No. 20120103344
2012-2013	2012-0128	375 Alabama Street	3666-002	46,189	18674	complete	2013	BPA No. 20120501008
2012-2013	2011-1048	385 7th / 1088 Harrison	3754-017	42,039	18700	complete	2013	BPA No. 201212115895
2012-2013	2011-1410	275 Blinn Street	3789-009	49,500	18672	complete	2013	BPA No. 201207164825
2013-2014	2013-0992	1139 20th Street	4083-002	32,081	19189			No Projects Approved During Allocation Period
2013-2014	2013-0627	650 5th Street	3788-008	40000	19234	complete	2016	DPW has approved the design of the approved by planning on 1/6/15 and now awaiting changes from architect as requested by DPW as of 2/2/16.

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O-MBA24L9

SMALL OFFICE APPROVALS - STATUS OF ALL PROJECTS

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
2014-2015	2013.1600	340 Bryant Street	3764-061	47536	19311	under construction		EPA 201305177189 issued 7/15/15

COMPLETE
REVOKED
18 MOS. EXPIRED
NO INFORMATION / NOT APPLICABLE
UNDER CONSTRUCTION
AWAITING ADDITIONAL INFORMATION

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O-MBA24L9

LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
1986-1987	1986.085	600 California	0241-003 into 0241-027	318,030	11077	complete	1992	
	1984.432	235 Pine	0267-015	147,500	11075	complete	1991	
	1984.274	33 Columbus	0195-004	81,300	11070	doesn't count	n/a	revoked 12/00
	1985.079	343 Sansome	0239-002	160,449	11076	complete	1991	
1987-1988								No Projects Approved During Allocation Period
1988-1989	1984.199	624 Howard	3721-013	199,965	11683	doesn't count	n/a	reapproved in 1998 under Case No. 1998.843.
1989-1990	1987.613	150 California	0236-003 into 0236-019	195,503	11828	complete	2001	
1990-1991	1989.589	300 Howard	3719-005 into 3719-018	382,582	13218	complete	2001	aka 199 Fremont Street
1991-1992								No Projects Approved During Allocation Period
1992-1993								No Projects Approved During Allocation Period
1993-1994								No Projects Approved During Allocation Period
1994-1995	1994.105	101 Second Street	3721-072	386,655	13886	doesn't count	n/a	Reapproved in 1997 under Case No. 1997.484.
1995-1996								No Projects Approved During Allocation Period
1996-1997	1997.484	101 Second Street	3721-72.75 into 3721-089	368,800	14454	complete	2000	
1997-1998	1997.215	65 Second Street	3708-019A/033/034 into 3708-086	283,301	14542	complete	2002	aka One Second Street
	1996.643	344-256 Front	0236-018	58,650	14601	complete	2001	aka 275 Sacramento Street
	1997.767	650 Townsend	3783-009	269,680	14520	complete	2001	aka 699-08th Street
	No Case	455 Golden Gate	0765-002/003	420,000	none	complete	1998	State office building. See also case no. 1993.707.
	1997.674	345 Battery	0135-001	52,715	14672	complete	1998	
	1997.470	475 Brannan	3787-031	61,000	14685	complete	2001	
	1998.144	250 Stewart	3741-028 into 3741-035	540,000	14504	complete	2002	aka 2 Folsom/250 Embarcadero
1998-1999	1998.135	One Market	3713-006	51,822	14756	complete	2000	
	1998.843	524 Howard	3721-013	201,989	14801	doesn't count	n/a	revoked 6/11 under Case No. 2011.0503
	1998.646	Per One	9900-001	88,350	none	complete	2003	Port office building

COMPLETE
REVOKED
18 MOS. EXPIRED
NO INFORMATION / NOT APPLICABLE
UNDER CONSTRUCTION
AWAITING ADDITIONAL INFORMATION

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**O-MBA24L9**

### LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS								<div>COMPLETE</div> <div>REVOKED</div> <div>18 MOS. EXPIRED</div> <div>NO INFORMATION / NOT APPLICABLE</div> <div>UNDER CONSTRUCTION</div> <div>AWAITING ADDITIONAL INFORMATION</div>
Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
	1998.321	554 Mission	3708-015/017/018 into 3708-095	645,000	14893	complete	2003	aka 560/584 Mission
	1999.167	700 Seventh	3799-001 into 3799-008	273,650	14895	complete	2006	aka 525 Townsend
	1999.566	475 Brannan	3787-031	2,500	14884	complete	2001	addition to previous approval - 1997.470
	1998.268	631 Folsom	3750-090	170,000	14750	doesn't count	n/a	project converted to residential - allocation revoked 12/00.
1999-2000	1999.106	670 Second	3788-043/044	60,000	14907	complete	2001	
	1999.027	160 King	3794-025	176,000	14956	complete	2002	
	1998.714	350 Rhode Island	3957-001	250,000	14988	complete	2004	
								18 mos exp 9/2/01. Includes 3 of 4 buildings at First & Howard (see bldg #1 - 400 Howard - below); bldg #2 - 405 Howard (3737-030) - 460,000 gsf office - 2000002172133 - complete); bldg #3 - 505-525 Howard - 2005; 505-525 Howard - 178,000 gsf office - 200610316514 - currently (8/4/08) under review by Planning (see also under review; 2008.0001 for additional allocation); bldg #4 - 500 Howard (3721-119) - 216,000 gsf office - 200006172952 - complete).
	1998.902	First & Howard	3721; 3736; 3737	854,000	15006	complete/approved	2003	
	1999.176	235 Second	3736/061 into 3736-123	180,000	15004	complete	2002	

LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS								COMPLETE
								REVOKED
								18 MOS. EXPIRED
								NO INFORMATION / NOT APPLICABLE
								UNDER CONSTRUCTION
								AWAITING ADDITIONAL INFORMATION
Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
	2000.127	500 Terry Francois	3838, 3839 into 8721-001/010	280,000	15010	complete	2008	MB 26a
	1998.766	535 Mission	3721-068	252,000	15027	doesn't count	n/a	revoked and reapproved as residential project converted to residential - allocation revoked 1/10/05
	1998.635	2101 Bryant	4080-007	148,000	15044	doesn't count	n/a	
	2000.329	550 Terry Francois	3838, 3840 into 8721-001/011	225,004	15055	complete	2002	MB 28
	1999.583	899 Howard	3733-079	153,500	15062	complete	2005	
2000-2001	1998.902	First & Howard	3720-008	295,000	16069	complete	2008	First & Howard - Building #1 (400 Howard)
	2000.1293	550 Terry Francois	3838, 3840 into 8721-001/011	60,150	16110	complete	2002	addition to 2000.329.
	2000.1295	Mission Bay 26/2	3840, 3841 into 8721-001-012	145,750	16111	doesn't count	n/a	AKA MB 26 East. returned to cap for approval of 2002.0301
	1999.603	555 Mission	3721-69,70,78	499,000	16130	doesn't count	n/a	project reviewed - allocation revoked and reapproved under Case No. 2007.0798.
	2000.277	801 Market	3705-48	112,750	16140	doesn't count	n/a	project abandoned per letter from sponsor
								18mos exp 5/8/03 - CPC received project status update on 10/11/07 (associated with 500 Pine Street Small Office Approval). Sponsor email reports that month period expired May 22, 2005 due to appeals. Building permit application no. 200708078958 currently under review by DB/DFD/DPW.
2001-2002	2000.541	350 Bush	269-2, 2a, 3, 22	344,500	16273	approved	n/a	
	2001.0444	38-44 Tehama	3736-111	75,000	16280	complete	2003	mostly 1998.176 - convert warehouse from PDR to office.
	2000.319	235 Second	3736-61, 62, 64-67	64,000	16279	complete	2002	
	2001.0689	250 Brannan	3774-25	113,540	16285	complete	2002	
	2001.0798	555 Mission	3721-69,70,78-81, 120	549,000	16302	complete	2008	
	2002.0301	Mission Bay 42/4	87-010	80,862	16397	doesn't count	n/a	revoked and reapproved as 2002.1216 (1600 Owens)
	2002.0300	1700 Owens	8709-007	97	16398	complete	2007	Alexandria District (160,100). West Campus. 164,82
2002-2003	No Case	Mission GSA	3702-15	514,727	none	complete	2007	Federal Building
	2002.0681	499 Illinois/201 -168	3040-001	429,542	16483	doesn't count	n/a	revoked and reapproved as 2006.0384 (201 168 Street) MB-Rick 34.



O-MBA24L9

LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

								COMPLETE
								REVOKED
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								UNDER CONSTRUCTION
								AWAITING ADDITIONAL INFORMATION
Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
2003-2004	2001.1039	55 9th Street	3701-063	268,000	16760	doesn't count	n/a	200408111247 issued 5/19/05 - Authorization REVOKED by Planning Commission Motion Nos. 17521 and 17522 for proposal to convert project to residential use.
	2000.1229	Per 30-32	3770-001	370,000	none	doesn't count	n/a	E, K & I Cases created, no B case created. BCDC permit approved in 2003 and allocation made for accounting purposes, but permit never acted upon. 2/09 - 370,000 added back to cap because project does not appear to be moving forward.
	No Case	Pyrodo - Lefferman Digital Arts		839,301	none	complete	2006	
2004-2005								No Projects Approved During Allocation Period
2005-2006	2006.0384	201-16th Street	3940-001	430,000	17223	complete	2008	aka 1429-1499 Mirco MBS Block X-4. 18 mos exp 10/6/07. Project (200607186938) complete 11/19/08. Alexandria District - West Campus (158500); 20061128094 issued 5/24/07 (aka MBS Bk 41-43, Parcel 5). Under construction. Estimated completion in March 2009.
2006-2007	2006.1212	1500 Owens	8709-006	0"	17333	complete	2009	Bk 41-43, Parcel 4. 200711097802 issued 6/3/08. Piles driven, no further work performed. Not currently active 5/18/2011
	2006.1216	1600 Owens	8709-004/010	0"	17332	approved	n/a	
	2006.1509	Alexandria District - North Campus (MB 26/1-3; 1455 Third Street/455 Mission Bay South Blvd/450 South Street)	8721-012/8720-011/016/017	0"	17401	complete/approved	n/a	MBS Bk 26, Parcels 1-3, project proposes 3 buildings - building permit application no. 200704279921 (455 Mission Bay South Blvd.) COMPLETE on 11/17/09 for 5 story office/lab; 200705090778 (450 South Street) COMPLETE on 10/23/09 for "parking garage with 7 stories new building." 200806104062 filed on 6/10/08 for new 10-story office building - Issued 4/23/10, but not under construction.
	2006.1536	1515 Third Street	8721-012	0"	17400	approved	n/a	MBS Bk 27, Parcel 1 - see also 2006.1509. 200806265407 filed 6/26/08 for 6-story office building - currently (9/29/08) being reviewed by SFFD. Sold to salesforce.com with 202,983 sf allocation as of April 2011.
	2005.1062	650 Townsend	3783-009	375,151	17440	complete	2009	18 mos exp 12/7/08. 200705151356 issued 2/20/08 - Conversion of existing structure into office - no major construction required. Final Inspection (3/16/09)

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LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

								COMPLETE
								REVOKED
								18 MOS. EXPIRED
								NO INFORMATION / NOT APPLICABLE
								UNDER CONSTRUCTION
								AWAITING ADDITIONAL INFORMATION
Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
	2006.0616	120 Howard	3717-019	67931	17466	complete	n/a	Construction completed in 2012
	2006.1273	535 Mission	3721-068, 083	293,750	17470	approved	n/a	18 mos exp 2/2/09; 2/12/08 - 200508049463 issued by CPB on 8/21/08. Appealed to Board of Permit Appeals on 8/29/08 (Appeal No. 08-137) - appeal withdrawn and permit reinstated on 8/29/08. Separate permits issued for pile indicators, site cleanup and fencing. 10/24/08 - Construction started in early 2013.
2007-2008	2006.0660	100 California	0236-017	76,500	17544	approved	n/a	18 mos exp 7/31/09. No building permit on file as of 5/18/11. Beacon Capital started the process and then allegedly sold to Broadway Partners, who are reputed to be current owners - no current status. 6/16/14 update - Broadway Partners website lists the property as theirs. No building permits relating to project on file. Site visit on 6/17/14 shows no signs of upcoming construction activity.

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LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
								COMPLETE
								REVOKED
								18 MOS. EXPIRED
								NO INFORMATION / NOT APPLICABLE
								UNDER CONSTRUCTION
								AWAITING ADDITIONAL INFORMATION
	2008.0001	505-525 Howard	3736-001-004/114/121	74,500	17641	approved	n/a	18 mos exp 12/26/16 - 2008/03/16/14 for new construction COMPLETED on 3/11/14. "First & Howard" bldg 3 - see 1998.902, 2005.0733 on file to legalize existing surface parking lot.
	No Case	680 Folsom Street	3735-013	117,000	none	approved	n/a	Redevelopment (Yerba Buena)
	2008.0850	Alexandria District	various	1122980	17709	approved	n/a	Establishes Alexandria Mission Bay Life Sciences and Technology Development District ("Alexandria District") to consolidate previous and future allocations.
	2008.0484	600 Terry Francois	8722-001	0"	17710	approved	n/a	Alexandria District - East Campus (312,932) - schematic design.
	2008.0483	650 Terry Francois	8722-001	0"	17711	approved	n/a	Alexandria District - East Campus (291,367) - schematic design.
	2008.0690	1450 Owens	8709-006	0"	17712	approved	n/a	Alexandria District - West Campus (61,581) - schematic design as of 4/20/11
2008-2009								No Projects Approved During Allocation Period
2009-2010	2009.1026	850-870 Brannan Street	3780-006/007/007A/072	138,580	18095	complete	2013	aka 888 Brannan Street
	2007.0946	Candlestick Point - Hunter's Point	Candlestick Point and Hunter's Point Shipyard	800000	18102	approved	n/a	NO ALLOCATION GRANTED YET. First 800,000 sq ft of office development within the Candlestick Point - Hunter's Point Project Area to receive priority office allocation over all projects except the Transbay Transit Tower or those within Mission Bay South.
	2006.1106	222 Second Street	3735-063	430,850	18170	approved	n/a	BPA No. 2007/1308366
2010-2011	No Case	Alexandria District	various	200000	17709	approved	n/a	additional allocation per terms of Motion 17709 by Letter of Determination
	2006.1524	350 Mission Street	3710-017	335,000	18268	approved	n/a	Priority Resolution Only for 100,000sqft.
	2007.0903	Treasure Island	1839-001/002	0	18332	approved	n/a	additional allocation per terms of Motion 17709 by Letter of Determination
2011-2012	No Case	Alexandria District	various	27020	17709	approved	n/a	Letter of Determination
	2011.0583	850-870 Brannan Street	3780-006, 007, 007A, and 072	113,753	18527	approved	2013	aka 888 Brannan Street
	2011.1147	601 Townsend Street	3799-001	72,600	18619	approved	n/a	BPA No. 201408063120 approved by Planning on 8/6/14, but not yet issued by DBI
	2009.0885	1100 Van Ness Ave	0694-010	242,987	18599	doesn't count	n/a	CPMC - Cal Hill MOB, rescinded & reallocated in 2013 cycle
	2011.0895	460-462 Bryant St	3763-015A	59,475	18685	under construction	n/a	BPA No. 201312194664 issued on 5/22/14.
	2012.0041	444 DeHaro St	3979-001	90500	18653	under construction	2013	BPA No. 201312194626 issued on 12/31/13.
	2012.0409	185 Berry St	3803-005	101,982	18690	under construction	n/a	aka China Basin Landing.

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LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
								COMPLETE
								REVOKED
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	2012.0371	100 Potrero Ave.	3920-001	70070	18704	complete	2013	EN Legitimization, BPA No. 2012122889/3 issued 5/6/13.
	2009.0886	3615 Cesar Chavez	6576-021	99,848	18595	doesn't count	n/a	CPMC - St. Luke's MOB, rescinded & reallocated in 2013 cycle
2012-2013	2012.0257	101 1st Street	3720-001	1,370,577	18725	under construction	n/a	Transbay Tower, aka 425 Mission St. BPA No. 201303132080.
	2007.0456	181 Fremont Street	0308-001	361038	18764	under construction	n/a	BPA No. 201305015894 issued 12/26/13.
	2012.1046	1550 Bryant Street	3923-006	108,399	18732	complete	2013	EN Legitimization, BPA No. 201302069627
	2012.1482	1900 Owens	8727-005	700000	18807	approved	n/a	currently under review at OCIL, DBI and SFPD. Approved 2/14/15
	2009.0885	1100 Van Ness Ave	0694-010	242987	18890	under construction	n/a	CPMC - Cal Hill MOB
	2009.0886	3615 Cesar Chavez	6576-021	94,799	18886	approved	n/a	CPMC - St. Luke's MOB
	2007.0385	345 Brannan Street	3788-039	102285	19000	under construction	n/a	Construction started in early 2014.
	2012.0799	270 Brannan Street	3774-026	189000	18988	under construction	n/a	BPA No. 201315174400 issued on 4/25/14. Foundation and Superstructure Addendum approved. Architectural Addendum under review by DBI/DPW/PUC. "Groundbreaking" in August 2014.
	2012.0906	333 Brannan Street	3788-042	175,450	18952	under construction	n/a	BPA No. 201308280744 issued 1/5/14. Planning approved Arch addendum on 2/20/14.
	2013.0276	350 Mission Street	3710-017	79,680	18956	under construction	n/a	Salafence (No. 2). BPA No. 201308011461 issued 9/5/12. Planning approved Arch addendum on 9/11/14. EN Legitimization, BPA No. 201306280728 issued 4/28/14.
	2013.0585	999 Brannan Street	3782-003	143292	18950	complete	2014	Approved 12/5/13. No BPA filed.
2013-2014	2012.0605	300 California Street	0238-002	56459	19034	approved	n/a	BPA No. 201311222636 issued on 12/31/13 to legalize office space.
	2013.0226	665 3rd Street	3788-041	123,700	19012	complete	2013	BPA No. 201308280744 approved by Planning on 7/30/14, but now "in hold" at DBI as of 12/3/14.
	2013.0544	410 Townsend Street	3785-002A	76000	19062	approved	n/a	no BPA filed. The applicant previously was submitting a "Phase II" for an additional 11 stories and 168,820 sq ft of office space.
	2013.0493	888 Brannan Street	3780-006, 007, 007A, and 072	10000	19049	complete	2014	AirBnB (No. 2) to convert GF parking to office.
	2013.0007	81-85 Bluxome Street	3786-018	55,000	19088	under construction	n/a	BPA No. 201404072588 issued 12/17/14. Arch addendum approved by all agencies except Planning.
2014-2015	2012.1187	501-505 Brannan Street	3786-038	137446	19295	approved	n/a	no BPA filed. The applicant previously was submitting a "Phase II" for an additional 11 stories and 168,820 sq ft of office space.
	2012.0203	100 Hooper Street	3808-003	284471	19315	approved	n/a	BPA No. 201410283735 filed 2/24/14. BPA No. 201410283737 approved by Planning on 4/13/15, approved by DBI 8/24/15. Currently under review by SFPD and SFPUC.

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O-MBA24L9



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

November 2, 2015

Tiffany Bohee  
Executive Director  
Office of Community Investment and Infrastructure  
One S. Van Ness Ave., 5<sup>th</sup> Floor  
San Francisco, CA 94103

ALAMEDA COUNTY  
Tom Bates  
Margaret Fujoka  
Scott Haggerty  
Nate Milley

CONTRA COSTA COUNTY  
John Giola  
David Hudson  
Karen Mitchell  
Mark Ross

MARIN COUNTY  
Katie Rice

NAPA COUNTY  
Brad Wagenknecht

SAN FRANCISCO COUNTY  
John Avalos  
Edwin M. Lee  
Eric Mar  
(Vice-Chair)

SAN MATEO COUNTY  
David J. Canepa  
Carole Groom  
(Chair)

SANTA CLARA COUNTY  
Cindy Chavez  
Liz Kniss  
(Secretary)  
Jan Pepper  
Rod G. Sinks

SOLANO COUNTY  
James Sperring

SONOMA COUNTY  
Teresa Barrett  
Shirlee Zano

Jack P. Broadbent  
EXECUTIVE OFFICER/APCO

Subject: Response to Comments on the DSEIR for the Event Center & Mixed-Use Development at Mission Bay Blocks 29-32 (Project).

Dear Ms. Bohee:

The Bay Area Air Quality Management District (Air District) is willing to assist the City and County of San Francisco (City) by administering an off-site mitigation program to reduce this Project's significant air quality impacts to the extent feasible. As we have discussed extensively with City staff, the \$321,646 identified in M-AQ-2b is not sufficient to achieve the 17 tons per year of ozone precursor emission reductions needed for this Project. Due to the nature of air quality impacts that need to be mitigated, comparison of the Air District off-site mitigation program identified for this Project to other air district programs is inappropriate and incorrect.

The amount of funds required to reduce 4.4 tons of reactive organic gases (ROG) and 12.6 tons of oxides of nitrogen (NOx), including a 5 percent administration fee, is \$620,922. This amount is based on a study of the Air District's Vehicle Buy Back (VBB) program funds spent over the last 3 years and represents the average cost of reducing ROG and NOx during that three year period. Only through the VBB program can the Air District achieve the contemporaneous emission reductions and other conditions set forth in M-AQ-2b.

Air District staff continues to be willing to assist the City in implementing an off-site mitigation program. However, the Final Environmental Impact Report Response to Comments includes the following statement: "Acceptance of this fee by the BAAQMD shall serve as an acknowledgement and commitment by the BAAQMD to: (1) Implement an emissions reduction project(s) within one year of receipt of the mitigation fee to achieve the emission reduction objectives specified above [i.e. 17 tons of ozone precursors per year]". Given this language, unless the City amends M-AQ-2b to fund this feasible mitigation measure at the \$620,922 level previously discussed with City staff, the Air District will be unable to participate in offsetting this Project's air quality impacts.

EXHIBIT 4

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O-MBA24L9

Tiffany Bohee

November 2, 2015

If you have any questions, please contact Allison Kirk, Senior Environmental Planner, at (415) 749-5169 or akirk@baaqmd.gov.

Sincerely,

Jean Roggenkamp  
Deputy Executive Officer

cc: BAAQMD Vice Chair Eric Mar  
BAAQMD Director John Avalos  
BAAQMD Director Edwin M. Lee



O-MBA24L9



DATE: November 2, 2015

TO: Tiffany Bohee, OCII Executive Director

FROM: Chris Kern, City Planning Department  
Sally Oerth, OCII Staff

SUBJECT: BAAQMD November 2, 2015 letter re Ozone Precursors Offset Mitigation Fee

The City Planning Department and the staff of the Office of Community Investment and Infrastructure (OCII) have reviewed the November 2, 2015 letter from the Bay Area Air Quality Management District regarding the Warriors Event Center and Mixed Use Development Subsequent Environmental Impact Report (SEIR). The letter states that the \$18,030 per weighted ton per year plus a 5% administrative fee mitigation fee identified in Mitigation Measure M-AQ-2b of the SEIR is insufficient to achieve the required reduction of 17.0 tons per year of ozone precursors. The letter proposes that the mitigation fee should be based on the BAAQMD's Vehicle Buy Back Program, at a cost of \$620,922 (or approximately \$36,525 per weighted ton per year) to achieve the required emissions reduction.

As discussed in the Draft SEIR (pages 5.4-41 through 5.4-42) and the Responses to Comments document (pages 13.13-65 through 13.13-69), the offset fee identified in Mitigation Measure M-AQ-2b is based on the California Air Resources Board (CARB) Carl Moyer program cost-effectiveness criteria. These criteria were developed by CARB to establish the upper limit for emissions offset projects eligible to receive funding through the Carl Moyer program.

Planning staff has been in communication with BAAQMD with regard to its suggestion that a higher fee may be warranted to offset project emissions to a less than significant level and found that BAAQMD could not establish that an increased rate beyond that of the Carl Moyer Program plus a five percent administrative fee could meet the "rough proportionality" standard required under CEQA. The Carl Moyer fee structure was reviewed and updated by CARB in March of 2015 and became fully implemented on July 1, 2015. The offset costs cited in Mitigation Measure M-AQ-2b Emission Offsets are consistent with those of the CARB and other operating California air districts. For example, in the Sacramento Metropolitan Air Quality Management District, the off-site construction mitigation fee rate is \$18,030 per ton of excess NOx emissions as of July 1, 2015 (plus an administrative fee of 5 percent) and is based on the cost effectiveness formula established in California's Carl Moyer Incentive Program. In the San Joaquin Valley Air Pollution Control District, the Indirect Source Review (ISR) program requires that an offsite reduction fee of \$9,350/ton plus a 4 percent administration fee be applied

Edwin M. Lee  
MAYOR

Tiffany Bohee  
EXECUTIVE DIRECTOR

Mara Rosales  
CHAIR

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Marilyn Mondejar  
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EXHIBIT 5

O-MBA24L9

Tiffany Bohee, OCII Executive Director  
Page 2

ER-2014-919-97  
November 2, 2015

for NOx emission reductions that cannot be achieved through onsite emission reduction measures. Furthermore, the offset costs in Mitigation Measure M-AQ-2b is consistent or even higher than comparable offset programs in the SFBAAB.<sup>1</sup>

The BAAQMD's November 2, 2015, letter does not establish that the CARB cost-effectiveness criteria are inappropriate for determining the offset costs under Mitigation Measure M-AQ-2b. Based on the information and analysis presented in the Draft SEIR, the Responses to Comments and supporting technical analyses, Planning Department and OCII staffs continue to believe that the offset fee established in Mitigation Measure M-AQ-2b is sufficient to achieve the required emissions offsets. In addition, as discussed in the Responses to Comments document, Mitigation Measure M-AQ-2b has been revised since publication of the Draft SEIR to allow the project sponsor to directly implement an emissions offset project as an alternative to entering into an agreement with the BAAQMD.

Therefore, for the reasons summarized above and discussed in greater detail in the SEIR and Responses to Comments, the November 2, 2015, letter from the BAAQMD does not alter the analysis or conclusions reached in the SEIR.

<sup>1</sup> Keinath, Michael, Rambol Environ, 2015. Analysis of the Proposed Offset Program for the Golden State Warriors. October 19, 2015.



O-MBA25L10

Law Offices of  
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November 6, 2015

San Francisco Public Works  
Bureau of Street-Use and Mapping  
1155 Market Street, 3rd Floor  
San Francisco, CA 94103

**Re: Warriors Arena Project Subdivision Map Application, Block 8722/001, 008  
(Project ID # 8593)**

Dear Bureau of Street-Use and Mapping:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project").

The Mission Bay Alliance requests notice of any public hearing, to be provided to my office, on this application.

The Mission Bay Alliance objects to approval of the Project's subdivision map application for the following reasons.

1. The Project SEIR does not comply with CEQA, as described in the Alliance's many comments on the SEIR submitted to the Successor Agency. 1  
[LC-ERP-1]
2. The Project does not comply with the Mission Bay South Redevelopment Plan as discussed in my November 5, 2015, letter to the Planning Commission attached as Exhibit 1. 2  
[LC-PP-1]
3. The Project does not comply with the San Francisco General Plan as discussed in my November 5, 2015, letter to the Planning Commission attached as Exhibit 1. 3  
[LC-PP-3]
4. The Project does not comply with Proposition M, as codified at Planning Code Section 320 et seq and Planning Commission Motion 17709, and is it is ineligible for allocation of any office space under Planning Code section 321 and Motion 17709, as discussed in my November 5, 2015, letter to the Planning Commission attached as Exhibit 1. 4  
[LC-PP-2]

O-MBA25L10

San Francisco Public Works  
Bureau of Street-Use and Mapping  
Re: Warriors Arena Project Subdivision Map (Project ID # 8593)  
November 6, 2015  
Page 2

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

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O-MBA25L10

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November 5, 2015

President Rodney Fong and Members of the Planning Commission  
City and County of San Francisco  
1650 Mission Street, Suite 400  
San Francisco, CA 94103

**Re: Warriors Arena Project: Planning Codes section 321 and 305, General Plan  
Inconsistency and CEQA Findings.**

Dear Commission President Fong and Members of the Commission:  
:

This office represents the Mission Bay Alliance (“Alliance”), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (“Warriors Arena Project” or “Project”). The Mission Bay Alliance objects to approval of this Project and certification of the Project SEIR.

**1. The Project is ineligible for any office space allocation under Planning Code section 321 and Motion 17709.**

**a. This Project does not comply with the Design for Development.**

Resolution 14702 and Motion 17709 require that any project in the Alexandria District must comply with the Mission Bay South Design for Development in order to be eligible for any office space allocation. (See Motion 17709, p. 9, Finding 9,<sup>1</sup> Finding 10<sup>2</sup>.)

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<sup>1</sup>“This schedule of phased authorization will ensure that, in accord with Resolution 14702, adequate office space can be allocated to those projects within the Development District that are determined to be in compliance with the D for D requirements, while also complying with Section 321 of the Planning Code forbidding exceedance of the square footage available for allocation in any given annual cycle.”

<sup>2</sup>“Pursuant to Resolution 14702, the Commission is charged with determining whether a project seeking authorization conforms to applicable standards in the D for D Document, which supersedes the criteria set forth in Section 321 and other provisions of the Code except as provided in the MBS Plan. The projects previously approved were determined to have met the MBS Redevelopment Plan and the D for D Document standards and guidelines, and requirements for childcare, public art, and other provisions of the Plan Documents, and retain

**EXHIBIT 1**

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This Project does not comply with the Design for Development, as evidenced by the many amendments that the Successor Agency made to the Design for Development to accommodate the Project. Therefore, it is ineligible for allocation of any office space under Planning Code section 321 and Motion 17709.

**b. This Project is inconsistent with the Redevelopment Plan.**

A basic premise of the Planning Commission decisions in Resolution 14702 and Motion 17709, and a fundamental rationale for “superseding” section 321’s guidelines in favor of the Redevelopment Plan and Redevelopment Plan documents, were the Commission’s findings that the Redevelopment Plan met standards set in section 321, the San Francisco Master Plan, the priority policies in Planning Code section 101.1, and the requirements of redevelopment law. In short, in order to be eligible for the office space allocation available under motion 17709, the Project must be consistent with the Redevelopment Plan.

This Project is inconsistent with the Redevelopment Plan because, as demonstrated in the November 2, 2015, letter from Susan Brandt-Hawley, my co-counsel for the Alliance (attached as Exhibit 1), this Project is not an allowable secondary use under the Redevelopment Plan. However, in the alternative, as shown in my November 2, 2015, letter (attached as Exhibit 2), if the Project is an allowable secondary use under the Redevelopment Plan, then it requires a variance under section 305 of the Plan before Project approval.

**2. The office space allocation requested for this Project exceeds the amount authorized for the Alexandria District.**

In 1986, San Francisco voters passed Proposition M, a referendum limiting the amount of office space that can be approved each year. Codified as Section 321 of the San Francisco Planning Code, it provides that “[n]o office development may be approved during any approval period if the additional office space in that office development, when added to the additional office space in all other office developments . . . would exceed 950,000 square feet.” (San Francisco Planning Code § 321(a)(1).) Office space is defined to mean “construction . . . of any structure” that has the “effect of creating additional office space.”

The current Project plans call for the construction of two office towers on Mission Bay South Parcels 29 and 31, comprising 309,436 square feet and 267,486 square feet of office space, respectively, for

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that design approval, along with all previously imposed conditions of approval. Future projects requesting authorization will be brought before the Commission for design review in accord with Resolution 14702, and upon determination by the Commission that such proposals are in conformity with the D for D and other applicable requirements, office space may be allocated for such new structures from the unassigned amount available in the Development District.”



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a total of 576,922 square feet of office space. (Executive Summary, p. 2.)

In 2008, the Planning Commission adopted Motion No. 17709. Motion 17709 approved a cumulative total office space allocation for all projects within the Alexandria Development District of 1,350,000 gross square feet. (Motion 17709, p. 9, Finding 9.) Of that amount, 1,222,980 was allocated before the adoption of Motion 17709. (Motion 17709, p. 5, Finding 4, Table 1.) Therefore, at the time Motion 17709 was proposed, 227,020 gsf of unallocated office remained for allocation. (Motion 17709, p. 9, Finding 9, Table 4.)

According to Motion 17709, there were three pending projects at that time, at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street. Motion 17709 states that these projects represented 665,880 square feet of “potential office space.” (Motion 17709, p. 5, Finding 5, Table 2.) Motion 17709 also states an intent to authorize only 57% of “potential office space” for actual office space after 10/18/09, 53% of “potential office space” for actual office space after 10/18/10, and 50% of “potential office space” for actual office space after 10/18/11.

Motion 17709 does not state how much actual office space was approved for the three pending projects at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street. The Planning Department’s Office Development Annual Limitation Program record (attached as Exhibit 3) shows “0\*” in the “size” column for these projects. (Exhibit 3, p. 19.) Assuming the Planning Commission allocated office space to these projects at the 57% ratio, that amount is 379,552 gsf (665,880 x .5). **This amount exceeds the remaining office space available for allocation at that time (i.e., 227,020 gsf).**

According to Motion 17709, there were two additional areas where the applicant indicated an intent to develop “potential office space,” namely, MB South Blocks “29 and 31” and “33-34.” (Motion 17709, p. 5, Finding 6, Table 3.) Motion 17709 states that these possible future projects represented 915,700 square feet of “potential office space,” with Blocks “29 and 31” at 515,700 GSF. (Motion 17709, p. 5, Finding 6, Table 3.)

Assuming, again, that the Planning Commission allocated office space to these areas at the 50% ratio, that amount is 457,850 GSF (915,700 x .5), with 257,850 allocated to Blocks “29 and 31” at 257,850 gsf (515,700 x .5).

The Draft Motion proposed for adoption at today’s hearing states that “Blocks 29-32 are included in the Development District and have been allocated a total of 677,020 sf of office space pursuant to Motion No. 17709.” (Draft Motion, p. 3.) This is incorrect in at least four ways.

First, it is unclear and unstated how Planning staff derived the 677,020 gsf number.

Second, after approval of the office space allocation for the three pending projects at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street, there was no office space left in the

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Alexandria District to allocate - as discussed above.

Third, even if one adds together the “potential office space” numbers for Blocks 29-32 in Motion 17709, the sum is 1,119,999 gsf, and 50% of that is only 560,000 gsf. The two office towers proposed for this Project require 576,922 gsf. (See Executive Summary, pp. 1-2: 309,436 gsf in the South tower and 267,486 gsf in the 16<sup>th</sup> Street tower). This number exceeds 560,000 gsf.

Fourth, when one adds the 25,000 gsf for office space in the arena building (see SEIR p. 3-17), the office space for this project totals 601,922 gsf (i.e., 576,922 plus 25,000), which also exceeds 560,000 gsf.

Fifth, to the extent there was any office space left for Motion 17709 to allocate after approval of the office space allocation for the three pending projects at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street, Motion 17709 allocated only 257,850 gsf to Blocks 29 and 31 (i.e., 50% of 515,700) pursuant to Finding 6, Table 3. **The 576,922 gsf of office space in the two office towers for this Project are located in Blocks 29 and 31; and the total of 576,922 gsf vastly exceeds the 257,850 gsf that may arguably be available.**

Because the office towers called for in the Project exceed the allowable office space cap, Section 321(a)(1) and Motion 17709 require the Planning Commission to deny approval of the Project and of the requested allocations of office space.

### 3. General Plan Inconsistency: BAAQMD.

San Francisco Master Plan Policy 4.1 states:

Support and comply with objectives, policies, and air quality standards of the Bay Area Air Quality Management District.

Regionwide monitoring of air quality and enforcement of air quality standards constitute the primary means of reducing harmful emissions. The conservation of San Francisco's air resource is dependent upon the continuation and strengthening of regional controls over air polluters. San Francisco should do all that is in its power to support the Bay Area Air Quality Management district in its following operations:

- Monitoring both stationary and mobile sources of air pollution within the region and enforcing District regulations for achieving air quality standards.
- Regulating new construction that may significantly impair ambient air quality.
- Maintaining alert, permit, and violations systems.
- Developing more effective controls and method of enforcement, as necessary

The attached letter from the Bay Area Air Quality Management District (Exhibit 4) and the City’s response (Exhibit 5) show that this Project does not comply with this policy.



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The Alliance previously commented on the Draft SEIR (Comment AQ-7) that the per ton charge for emission offsets is too low to achieve complete offset of the Project's emissions. The City's response to comments on this point is cagey, but it does suggest what now turns out to be fact - that the BAAQMD agreed with the comment - because the response states:

SF Planning has been in communication with BAAQMD with regard to its suggestion that a higher fee may be warranted to offset project emissions to a less than significant level and found that BAAQMD could not establish that an increased rate beyond that of the Carl Moyer Program plus a five percent administrative fee could meet the "rough proportionality" standard required under CEQA.

(RTC, p. 13.13-67.) The RTC's rationale for contending that a higher offset fee would not meet the "rough proportionality" standard is that offset fees in other areas of the state are not higher than the offset fee proposed in the DSEIR. This is an error of law. The "rough proportionality" requirement requires a comparison of the cost of the mitigation to the degree of severity of the impact. The fees charged in other areas of the state are irrelevant to "rough proportionality."

### 4. CEQA Findings: General

The Commission cannot make any CEQA findings required by CEQA section 21081 or CEQA Guidelines 15091, 15093, 15096(f), because the Project SEIR does not comply with CEQA and is not certifiable, for the reasons described in the Alliance's comments on the SEIR.

### 5. CEQA Findings: BAAQMD.

The Commission cannot find that "Impact AQ-4: Potential conflicts with BAAQMD's 2010 Clean Air Plan" is less than significant with mitigation because the City and Project Sponsor refuse to agree to BAAQMD's offset fees per Mitigation Measure M-AQ-2b. (See Exhibits 4 and 5.) There is also no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible. There are too many unanswered questions regarding Option 2, including lack of assured verification of offsets to ensure their effectiveness, and lack of assurance that offset sources are available in the quantity required. BAAQMD's offset program at least answers some, if not all, of these questions.

The Commission cannot find that all feasible mitigation measures that would substantially reduce "Impact AQ-1: Impacts of Criteria Air Pollutants from Construction" have been adopted as required by CEQA section 21081, because there is no evidence that paying the offset fees demanded by BAAQMD is infeasible. Also, as discussed above, there is no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible; therefore, it is not an adequate substitute for BAAQMD's offset program. This also applies to

- Impact AQ-2: Impacts of Criteria Air Pollutants from Project Operations"; Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts;

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- Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts.

### 6. CEQA Findings: Pier 80 Alternate Site.

The Commission cannot find that feasible alternatives that would substantially reduce the Project's significant impacts have been adopted. The SEIR does not analyze the alternate site proposed by the Alliance near Pier 80, and did not circulate that analysis for public comment. Neither OCII nor this Commission has the basis to make conclusory findings rejecting the alternative. Among the relevant facts not considered in the findings is that the site is three times as large as would be required for the Event Center project and need not utilize any of the City-owned property nor any particular configuration of the privately-owned lots should there be an unwilling seller. There is no evidence provided that the site could not be acquired within a reasonable time period.

Case law confirms that assuring a site's consistency with city plans and zoning is within the City's power. Similarly, the scheduling of transportation services to the site can be increased, and the findings provide no studies to back up conclusory statements regarding traffic, air quality, hydrology, or water quality impacts. Since only a third of the site is needed to accommodate the event center, all of the impacts (if shown to have concern after sufficient technical review) can be avoided or mitigated. As stated in the Alliance letter to OCII that proposes this site for consideration as an alternative, here incorporated by reference, the SEIR failed to consider a potentially-feasible off-site alternative and must be revised and recirculated to do so before findings of infeasibility may be considered or adopted. The site suggested by the Alliance is potentially feasible and deserving of study.

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

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November 2, 2015

Tiffany Bohee, OCII Executive Director  
c/o Brett Bollinger, San Francisco Planning Department  
via email [warriors@sfgov.org](mailto:warriors@sfgov.org)

Subject: Warriors Event Center & Mixed Use Development  
Inconsistency with Mission Bay South Redevelopment Plan  
'Secondary Use' Classification

Dear Director Bohee and Mr. Bollinger:

The Mission Bay Alliance (the Alliance) contends that the Warriors' Event Center is unlawfully inconsistent with every use allowed by the Mission Bay South Redevelopment Plan (the Plan). Although the Alliance raised this issue in comments on the Draft Subsequent EIR (DSEIR), both the Responses to Comments in the Final SEIR and OCII's findings of project consistency remain materially inadequate.

The Plan designates uses allowed at a 'Commercial Industrial/Retail' site. The Alliance notes that while OCII now concedes that a sports arena is not within the scope of allowed 'principal uses' in that zoning, OCII contends that an arena is consistent with 'secondary uses.' As this letter will explain, all such secondary uses are similarly and demonstrably insufficient to permit the Warriors' sports arena.

**Nighttime Entertainment.** The Initial Study concluded, in error, that the DSEIR did not need to address land use issues — at all. It asserted that the entire Event Center, including the sports arena use, somehow met the secondary 'Nighttime Entertainment' use analyzed in the 1998 Plan EIR. Secondary uses were then generally referenced in the DSEIR (*e.g.*, pp. 3-8, 3-51, 4-5, 5.2-115), but there was no discussion of which category of secondary use would be allocated to the Event Center, inferring acceptance of the Nighttime Entertainment category.

The Plan describes Nighttime Entertainment in terms of small-scale local uses like dance halls, bars, nightclubs, discotheques, nightclubs, private clubs, and

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restaurants. (Plan, p. 50.) At the time of the 1998 EIR, several small neighborhood bars occasionally offered nighttime entertainment, consistent with the secondary use category. Such minor uses were compatible with the 3rd Street Corridor and the waterfront. Clearly, no mammoth regional entertainment venue was anticipated in Mission Bay South and no such use was considered in the 1998 Plan EIR.

And while professional basketball games are held at night, the Event Center also projects 31 annual events "related to conventions, conferences, civic events, corporate events and other gatherings," with an estimated attendance of between 9,000 and 18,500 patrons. "[T]he majority of events are expected to occur during day time hours." Such events are not 'Nighttime Entertainment.'

The Director's currently-proposed findings that the sports arena is 'Nighttime Entertainment' contemplated as a secondary use in the Plan are unsupported. The findings fail to match the scope and impacts of a professional sports venue with the analysis or description of uses in the Plan or in the 1998 EIR. The findings are fatally conclusory; that somehow a professional sports venue would be "similar" to a nightclub or bar use in the 'Nighttime Entertainment' category "because" it will serve alcohol, provide amplified live entertainment, and provide a venue for evening gatherings. The findings fail to address the core inconsistency of a regional sports arena with the intent of the adopted Plan and the Design for Development, which focus on commercial entertainment uses in Mission Bay North to complement the Giants' ballpark.

OCII's reliance on the negative; to wit, that the 'Nighttime Entertainment' secondary use has no specific size limitations, is not enough. The Plan provides for the continued development of Mission Bay South as a walkable urban community intended to facilitate world-class medical and biotechnology development. The Event Center project violates the Plan Area Map carefully designed in classic, walkable Vara Blocks. (Plan, Attachment 2, p. 40.) Neither the Plan nor the Design for Development contemplate any uses comparable in scope or impact to the Event Center as 'Nighttime Entertainment.'

That being said, in fact in the Final SEIR and as reflected in the proposed Plan consistency findings, OCII now implicitly agrees with the Alliance that the 'Nighttime Entertainment' secondary use standing alone does not encompass a sports arena. Now, OCII additionally relies on the Plan's alternate 'secondary uses.' No such uses are consistent with the Plan, as explained below.



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**Recreation Building.** One of the Plan's secondary use categories is for an undefined 'Recreation building.' (Plan, p. 15.) The Plan describes 'Outdoor Recreation' as "an area, not within a building, which is provided *for the recreational uses of patrons* of a commercial establishment." (Plan, p. 50, italics added.)

OCII's proposed findings as to the 'Recreation building' category stretch the regional sports arena use not only beyond what was contemplated by the Plan or studied in the 1998 EIR, but beyond logic. To state the obvious: there is a difference between 'recreation' and 'entertainment.' Both involve enjoyment and leisure, and may involve ancillary eating and drinking, and the Alliance has no quarrel with the Director's reference to recreation as "something people do to relax or have fun; activities done for enjoyment." (OCII Proposed Secondary Use Determination, p. 6.) But myriad dictionary definitions confirm and it cannot readily be denied that 'recreation' is commonly understood to involve one's personal physical activities while 'entertainment' refers to events or performances designed to entertain others.

None of the Plan's various references to 'entertainment' include athletic activities normally considered 'recreation:' Adult Entertainment [bookstore or theater], Amusement Enterprise [video games], Bar [drinking and theater], Theater [movies and performance]. (Plan, Attachment 5, pp. 44-51.) Consistently, the 1998 EIR's discussion of 'recreational' land uses focused in turn on open space, bicycles, parks, and water-based activities. (Mission Bay EIR, Volume IIB, pp. V.M. 15-28.)

In context, the Plan's reference to 'Recreation building' as a secondary use contemplates participatory recreational uses like the 'recreation facilities' referenced in the 1998 Plan EIR for the existing golf driving range and in-line hockey rink, with the expressed expectation that the size of recreational 'facilities' would decrease as redevelopment of the Plan area progressed. (OCII Proposed Secondary Use Determination, p. 6.)

Reliance on the secondary use of 'Recreation building' is unsupported.

**Public Structure or Use of a Nonindustrial Character.** As presented in the Plan, the category of "other secondary uses" labeled 'Public structure or use of a nonindustrial character' references *one* secondary use, not *two*. (Plan, p. 13.) The use is required to be public, and either a structure *or* a use.

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The interpretation urged by the Director is, again, strained beyond the plain words of the Plan. 'Public' is not defined in the Plan and so its common meaning is assumed. But as proposed in the consistency findings, OCII interprets a 'public' use as simply requiring that the public be somehow 'served.' That would encompass every kind of principal and secondary use listed in the Plan, from child care to animal care to hotel, *etc.*, and renders the category meaningless: *i.e.*, "Any use is ok."

Instead, a public structure or use is commonly understood to be under the control and management of a public agency for the benefit of its constituency — such as the University of California<sup>1</sup> or the City of San Francisco. The Plan provides a description of a range of anticipated public improvements in Attachment 4. This list includes both public buildings and public uses. None of the public improvements listed in Attachment 4 include anything like a private professional sports arena.

The Event Center is a private project and is not within the scope of the secondary use category for a public structure or use of a nonindustrial character.

**Director's Findings.** As explained, the sports arena uses that are the impetus for the Event Center project are not allowed by the Plan's allowed principal or secondary uses. An allowed use is prerequisite for a finding of Plan consistency. The Alliance will not belabor the myriad other inconsistencies with the Plan's objectives, design, incompatibility with UCSF, and creation of significant environmental impacts, as those have been described in the DSEIR comments and throughout the administrative record, but hereby objects to their insufficiencies and lack of supporting substantial evidence for the Plan consistency finding.

Consideration of the Event Center project must be preceded by amendment of the Plan to be consistent with the delineated principal and secondary uses and the adopted Plan Area Map of the Mission Bay South Redevelopment Plan.

Thank you.

Sincerely yours,

  
Susan Brandt-Hawley  
Attorney for Mission Bay Alliance

<sup>1</sup> See attached 2005 Resolution and Secondary Use finding regarding the "UCSF hospital" as a "public structure or use of a non-industrial character" for "a public body specifically created by the California Constitution."



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RESOLUTION NO. 176-2005

Adopted November 1, 2005

APPROVING A MEMORANDUM OF UNDERSTANDING WITH THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, A CALIFORNIA PUBLIC CORPORATION, AND ACKNOWLEDGING THE EXECUTIVE DIRECTOR'S FINDINGS OF CONSISTENCY WITH THE MISSION BAY SOUTH REDEVELOPMENT PLAN, FOR THE EXPANSION OF UCSF FACILITIES IN THE MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA; MISSION BAY SOUTH REDEVELOPMENT PROJECT AREA

BASIS FOR RESOLUTION

1. On September 17, 1998, by Resolution No. 193-98, the Redevelopment Agency of the City and County of San Francisco's (the "Agency") Commission (the "Agency Commission") conditionally approved the Mission Bay South Owner Participation Agreement (the "South OPA") and related documents between Catellus Development Corporation (the "Owner") and the Agency for development in the Mission Bay South Redevelopment Project Area (the "Project Area").
2. On November 2, 1998, the Board of Supervisors of the City and County of San Francisco (the "Board") by Ordinance No. 335-98 approved and adopted the Redevelopment Plan for the Mission Bay South Redevelopment Project Area (the "Plan"). The Board's adoption of the Plan satisfied the conditions to the effectiveness of Agency Resolution No. 193-98.
3. On November 16, 1998, the Agency entered into the South OPA with the Owner. The South OPA sets forth phasing principles that govern the development of property in the Project Area. Those principles include the Owner's obligations to deliver to the Agency affordable housing sites as market rate housing is built in the Project Area. They also include the Owner's commitments to construct public open space and other public infrastructure adjacent to – or otherwise triggered by – development on any of the private parcels governed by the South OPA.
4. Under the South OPA and the related Mission Bay South Tax Increment Allocation Pledge Agreement (the "Pledge Agreement"), dated as of November 16, 1998, between the Agency and the City and County of San Francisco (the "City"), approximately 20% of the total property tax increment (plus certain excess tax increment) generated by development in the Project Area is contractually dedicated to develop affordable housing units on parcels that the Owner will contribute to the Agency, to achieve the affordable housing program contemplated by the Plan.

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5. The South OPA requires the Owner to construct the public infrastructure directly related to each of the major phases in accordance with the incremental build-out of each project. Under the South OPA and the Pledge Agreement, the Agency is obligated to fund, repay or reimburse the Owner, subject to certain conditions, for the direct and indirect costs of constructing the infrastructure. The Agency has established a Community Facilities District ("CFD") for infrastructure in the Project Area. The Agency has also established a separate CFD to pay the costs of maintaining the public open space in the Project Area.
6. The South OPA provides that as a condition to any transfer of property in the Project Area, the Owner must obtain the agreement of the transferee to assume all of Owner's obligations under the South OPA with respect to the transferred parcels.
7. The Project Area includes an approximately 43-acre biomedical research and educational campus site (the "Campus Site") for the University of California, San Francisco ("UCSF"). UCSF has already invested about \$675 million on projects completed or underway on the Campus Site within the Plan Area and has plans to invest another \$225 million on projects in design.
8. The Regents of the University of California, a California public corporation ("The Regents") wishes to lease or acquire, and the Owner wishes to transfer Parcels 36, 37, 38 and 39 in the Project Area, comprising approximately 9.65 acres of land for the possible expansion of UCSF in Mission Bay (the "Expansion Parcels"). These parcels are not part of the 43 acres that the Plan originally designated as the Campus Site.
9. On November 30, 2004, The Regents released proposed amendments in draft form to its long range development plan, as LRDP Amendment #2. Those amendments contemplate an expansion of UCSF facilities onto the Expansion Parcels, including the possibility of developing by 2012 new integrated specialty Children's, Women's and Cancer hospitals containing about 210 beds, together with ambulatory and research facilities. In March 2005, The Regents approved LRDP Amendment #2 (the "Project") and certified a related final environmental impact report (the "LRDP #2 FEIR") which analyzed the environmental effects of the proposed UCSF development on the Expansion Parcels. Copies of the LRDP #2 FEIR are on file with the Agency Secretary.
10. The Owner and The Regents have entered into an Option Agreement and Grant of Option to Lease, dated as of January 1, 2005 (the "Option to Lease"), which provides that upon the satisfaction of certain conditions and the exercise by The Regents of its option (i) Catellus, as landlord, and The Regents, as tenant, will enter into a long-term ground lease of the Expansion Parcels (the "Lease") and (ii) the Owner and The Regents will at the same time enter into an Option Agreement and Grant of Option to Purchase (the



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"Option to Purchase") under which The Regents will have an option to purchase the Expansion Parcels.

11. If The Regents exercises the Option to Lease within the option term, the Lease would allow for The Regents to develop up to 1,020,000 leasable square feet on the Expansion Parcels, provided that (a) any development of those parcels is the subject of further environmental review under the California Environmental Quality Act ("CEQA"), and (b) the Owner does not lose any of its entitled development potential for the balance of its land nor lose any of its other rights and privileges under the South OPA.
12. Pursuant to Section 302 of the Plan, the development of the contemplated UCSF facilities on the Expansion Parcels is permitted as a subset of "Other Uses" as a secondary use. Such secondary uses are permitted provided that such use generally conforms with redevelopment objectives and planning and design controls established pursuant to the Plan and based on certain findings of consistency by the Agency's Executive Director (the "Consistency Findings"). The Executive Director has made the Consistency Findings, and such findings are hereby incorporated herein by this reference as if fully set forth.
13. The City must make substantial improvements to San Francisco General Hospital ("SFGH") by 2013 and is evaluating a number of alternatives, including rebuilding on site and co-locating a new SFGH with new UCSF medical facilities in Mission Bay.
14. As a State agency, The Regents is exempt under the State Constitution from local land use regulation and property taxes to the extent it uses property exclusively in furtherance of its educational mission.
15. The Agency, City and The Regents negotiated a non-binding term sheet to guide the preparation of final transactional and related documents, such as a Disposition and Development Agreement ("DDA") for The Regents to acquire property for, and to construct and subsidize, affordable housing for low-income workers of UCSF, which DDA is being considered by the Agency Commission concurrently with this Resolution, pursuant to Resolution No. 160-2005, and provided terms for a Memorandum of Understanding regarding design standards and cooperation on the development of the Expansion Parcels (the "MOU"). The Agency Commission approved the non-binding term sheet on May 17, 2005 by Resolution No. 81-2005.
16. The proposed MOU addresses, among other things: the potential loss of tax increment from the transfer of the Expansion Parcels to a tax-exempt entity; the obligations to build infrastructure associated with development on the Expansion Parcels; the potential assistance of UCSF in the planning of the co-location, if any, of SFGH with the new UCSF facilities; the standards for design review for construction on the Expansion Parcels; local hiring and

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equal opportunity for jobs associated with the development on the Expansion Parcels; and other matters designed to provide the Agency and City with significant public benefits.

17. Agency staff is recommending that the Agency Commission approve the MOU, and the associated Consistency Findings.
18. The Agency Commission has reviewed and considered the information contained in the LRDP #2 FEIR.
19. The Agency Commission hereby finds that the MOU is an action in furtherance of the implementation of the Project for purposes of compliance with CEQA.
20. By Resolution 175-2005, the Agency Commission adopted environmental findings related to the LRDP #2 FEIR, pursuant to CEQA and the CEQA Guidelines (the "Findings"). Such Findings are made pursuant to the Agency's role as the responsible agency under CEQA for the Project. The Findings are hereby incorporated herein by this reference as if fully set forth.

RESOLUTION

ACCORDINGLY, IT IS RESOLVED by the Redevelopment Agency of the City and County of San Francisco that the findings of consistency with the Mission Bay South Redevelopment Plan are approved and the Executive Director is authorized to execute the "Expansion of UCSF Facilities in Mission Bay South Redevelopment Project Area (Blocks 36-39) Memorandum of Understanding", substantially in the form lodged with the Agency General Counsel; Mission Bay South Redevelopment Project Area.

APPROVED AS TO FORM:

  
James B. Morales  
Agency General Counsel

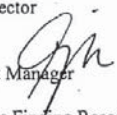


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MEMORANDUM

126-03405-001  
October 12, 2005

To: Marcia Rosen  
Executive Director

From: Amy Neches   
Senior Project Manager

Re: Secondary Use Finding Recommendation for UCSF Hospital in Mission Bay South Redevelopment Area

Pursuant to a Term Sheet dated as of August 1, 2005 between the City, the Agency and The Regents of the University of California, which was endorsed by the Commission on May 17, 2005 (Resolution No. 81-2005), the Agency is considering agreements, including a Memorandum of Understanding ("MOU"), under which the University of California at San Francisco ("UCSF") may develop a hospital in the Mission Bay South Redevelopment Area ("Redevelopment Area").

The UCSF hospital would be located on Blocks 36-39 within the Commercial Industrial land use district of the Redevelopment Area, as described in the Mission Bay South Redevelopment Plan (the "Plan"). The UCSF hospital development may also include all or portions of Block X3 within the Commercial Industrial/Retail land use district. In both of these land use districts "public structure or use of a non-industrial character" is permitted as a subset of "Other Uses" as a secondary use.

The University of California, of which UCSF is a component, is a public body specifically created by the California Constitution. A hospital or medical center is described in §790.44 of the San Francisco Planning Code as a "public or private institutional use which provides medical facilities for inpatient care, medical offices, clinics, and laboratories." The proposed UCSF hospital development will include these components. The hospital will not including manufacturing, warehousing, or distribution of goods, and can reasonably be considered a "non-industrial use." This interpretation is supported by the San Francisco Planning Code, under which hospitals are permitted as a conditional use in all C districts and NC-3 districts.

Section 302 of the Plan provides as follows:

"Secondary uses shall be permitted in a particular land use district...provided that such use generally conforms with redevelopment objectives and planning and design controls established pursuant to this Plan and is determined by the Executive Director to make a positive contribution to the character of the Plan Area, based on

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a finding of consistency with the following criteria: the secondary use, at the size and intensity contemplated and at the proposed location, will provide a development that is necessary or desirable for, and compatible with, the neighborhood or the community."

Staff believes that the UCSF hospital is appropriate as a secondary use, based on the following:

- 1) The proposed hospital will be located on approximately 10 to 14 acres of land adjacent to the Mission Bay UCSF research campus that have been determined to be blighted and are affected by environmental contamination. UCSF plans close integration of its basic academic research activities with the teaching, research and patient care activities within the planned hospital. The plan for development of the UCSF hospital generally conforms to the Redevelopment Project Objectives as described in §103 of the Plan, particularly with objective A of eliminating blight and correcting environmental deficiencies, and objective B of retaining and promoting UCSF's research and academic activities within the City and County of San Francisco.
- 2) Under the MOU, the UCSF hospital development will generally conform to the planning and design controls established pursuant to the Plan, including the street layout, setbacks, and streetscape plan. To accommodate the needs of the hospital, the MOU will include specific adjustments to the existing height and bulk standards of the Commercial Industrial and Commercial Industrial/Retail land use zones of the Mission Bay South Design for Development. These changes will lower the maximum height of a hospital to 105 feet, compared to the existing 160 foot limit, but would allow for somewhat greater bulk in the mid-rise area. These changes have been studied and presented to the public at two well-noticed public meetings. In staff's opinion, the proposed adjustments represent reasonable variation from the existing standards, which will have little if any negative effect on the surrounding community in the context of overall Mission Bay development.
- 3) The hospital will contain no more development, as calculated under the Plan in leasable square feet, than would have been permitted under the principal uses permitted in these land use districts, and there will be no net increase in the overall size of development within the Redevelopment Area. The hospital will be developed on parcels that would otherwise likely have been developed with commercial office or life science/biotechnology uses. These uses would have been constructed in buildings of reasonably similar size and appearance as the proposed hospital use.
- 4) The proposed hospital will allow UCSF to continue to provide needed tertiary health care to the residents of San Francisco in a modern seismically safe hospital, and will assist UCSF in furthering its research and academic mission.

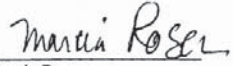


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Based on these factors, staff believes that it is appropriate to make the finding of consistency cited above, and recommends that the Executive Director permit the development of the UCSF hospital as a secondary use in Mission Bay, subject to the approval of the MOU by the Commission.

Approved on October 12, 2005:

  
Marcia Rosen  
Executive Director

O-MBA25L10

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By personal delivery at Nov. 3, 2015, hearing to:

Commission on Community Investment and Infrastructure  
Attn: Claudia Guerra, Commission Secretary  
Office of Community Investment and Infrastructure  
1 South Van Ness Avenue, 5th Floor  
San Francisco, CA 94103

and email to: [claudia.guerra@sfgov.org](mailto:claudia.guerra@sfgov.org)

By email to: [warriors@sfgov.org](mailto:warriors@sfgov.org):

Ms Tiffany Bohee  
OCII Executive Director  
c/o Mr. Brett Bollinger  
San Francisco Planning Department  
1650 Mission Street, Suite 400  
San Francisco, CA 94103

**Re: Warriors Arena Project: Violation of Variance Requirement.**

Dear Ms Bohee and Mr. Bollinger:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project"). The Mission Bay Alliance objects to approval of this Project and certification of the Project SEIR.

I write today regarding the OCII's failure to require a variance or "variation" for this Project under section 305 of the Mission Bay South Redevelopment Plan ("Plan"). The November 2, 2015, letter from Susan Brandt-Hawley, my co-counsel for the Alliance, demonstrates this Project is not an allowable secondary use under the Plan. Thus, a variance is not available because, as shown by Brandt-Hawley, the Project "will change the land uses on this Plan." (Plan, § 305.) However, in the alternative, if the Project is an allowable secondary use under the Plan, then the OCII must process this Project application as a variance and make the findings required by Plan section 305 before Project approval.

Both California and San Francisco planning law provide a process for landowners to obtain a "variance" from the "uniformity" of zoning limits that, while appropriate for the zone district in general, would impose undue hardship due to unique characteristics of a specific parcel. Government Code section 65906 governs the grant of zoning variances by municipalities and prohibits local agencies from granting "special privileges" to individual landowners. Similarly, San

**EXHIBIT 2**



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Francisco Planning Code, section 305, subdivision (a), provides that a variance permit must be approved for any exception to the requirements of the Planning Code. Subdivision (c) thereof mirrors the requirements of state law, and requires a finding that “owing to such exceptional or extraordinary circumstances the literal enforcement of specified provisions of this Code would result in practical difficulty or unnecessary hardship ....”

Similarly, the Plan includes a variance provision that reflects the same substantive requirements as Government Code section 65906 and Planning Code section 305:

The Agency may modify the land use controls in this Plan where, owing to unusual and special conditions, enforcement would result in undue hardships or would constitute an unreasonable limitation beyond the intent and purposes of these provisions. Upon written request for variation from the Plan’s land use provisions from the owner of the property, which states fully the grounds of the application and the facts pertaining thereto, and upon its own further investigation, the Agency may, in its sole discretion, grant such variation from the requirements and limitations of this Plan. The Agency shall find and determine that the variation results in substantial compliance with the intent and purpose of this Plan, provided that in no instance will any variation be granted that will change the land uses on this Plan.

(Plan, § 305.)

Because the Plan’s variance provision imposes virtually identical requirements as Planning Code section 305, both apply. (Plan, §’s 101 [“Regardless of any future action by the City or the Agency, whether by ordinance, resolution, initiative or otherwise, the rules, regulations, and official policies applicable to and governing the overall design, construction, fees, use or other aspect of development of the Plan Area shall be (i) this Plan and the other applicable Plan Documents, (ii) to the extent not inconsistent therewith or not superseded by this Plan, the Existing City Regulations and (iii) any new or changed City Regulations permitted under this Plan”]; 304.9.C.(iv)).

Here, the Project creates at least sixteen inconsistencies with the Design for Development (D4D). The OCII now proposes to amend the D4D, the Owner’s Participation Agreement (OPA), and other Plan documents to resolve these inconsistencies by, including but not limited to, raising maximum height limits from 90 to 135 feet, allowing a second 160+ foot tower, increasing bulk limits to accommodate the arena, and changing arena setbacks, street wall heights, view corridors, public rights of way, and parking standards. (See e.g., Draft SEIR, pp. 4-7 - 4-9, § 4.2.4; Proposed Resolution 2015, exhibit A; Memorandum to the OCII from Executive Director Tiffany Bohee for Items 5(a), 5(b), 5(c), 5(d) & 5(e) the November 3, 2015, CCII meeting agenda, pp. 4, 22.)

Even if the Project’s land uses are allowable secondary uses, these amendments “modify the land use controls in this Plan” as provided in Plan section 305. But the Project Sponsor has made

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no showing that due to “unusual and special conditions, enforcement would result in undue hardships or would constitute an unreasonable limitation beyond the intent and purposes of these provisions.” (Plan, § 305.)

“Variances are, in effect, constitutional safety valves to permit administrative adjustments when application of a general regulation would be confiscatory or produce unique injury.” (Curtin’s California Land Use and Planning Law, p. 55.) Variance requirements also implement the State Planning and Zoning Law’s requirement of “uniformity” of zoning rules within zoning districts. (See Gov. Code, § 65852 [“All such [zoning] regulations shall be uniform for each class or kind of building or use of land throughout each zone, but the regulation in one type of zone may differ from those in other types of zones;” *Neighbors in Support of Appropriate Land Use v. Cnty. of Tuolumne* (2007) 157 Cal.App.4th 997, 1008 (*Neighbors*).) The State Planning and Zoning Law also requires vertical consistency between local agencies general plans, zoning ordinances, and land use permits. (Gov. Code, § 65860, subd. (c) [“County or city zoning ordinances shall be consistent with the general plan of the county or city... .”]; see *DeVita v. Cnty. of Napa* (1995) 9 Cal.4th 763, 772 [“A general plan is a ‘constitution’ for future development [citation omitted] located at the top of ‘the hierarchy of local government law regulating land use’”].)

California courts have vigorously enforced the requirements for granting a variance, and have developed extensive jurisprudence to corral the many stratagems local agencies have used to avoid its requirements. (See e.g., *Topanga Association v. County of Los Angeles* (1974) 11 Cal.3d 506, 511-12 (*Topanga*); *Orinda Assn. v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1166 (*Orinda Assn*) [“A zoning scheme, after all, is similar in some respects to a contract ... If the interest of these parties in preventing unjustified variance awards for neighboring land is not sufficiently protected, the consequence will be subversion of the critical reciprocity upon which zoning regulation rests...”].)

Variance findings must focus on a comparison of the subject property to other properties in the zone district with which the variance is intended to bring it into parity, and the benefits to the community or “public interest” associated with a zoning exception are irrelevant. (*Orinda Assn, supra*, at p. 1166.) By amending the Plan documents to accommodate this Project, the OCII would cast these requirements aside and grant a “special privilege” to this Project Sponsor.

In *Neighbors*, rather than adopt a rezone or grant a variance, the County created a special exception to the zoning ordinance for one landowner by including it in a development agreement adopted under the development agreement law. (*Neighbors, supra*, 157 Cal.App.4th at p. 1003.) In rejecting this stratagem, the Court in *Neighbors* noted that there are limits on the power to rezone: “‘The foundations of zoning would be undermined, however, if local governments could grant favored treatment to some owners on a purely ad hoc basis ... [R]ezoning, even of the smallest parcels, still necessarily respects the principle of uniformity.’” (*Id.* at pp. 1009-10.)



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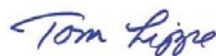
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A similar result occurred in *Trancas Prop. Owners Assn. v. City of Malibu* (2006) 138 Cal.App.4th 172 (*Trancas*). In *Trancas*, the court held an exemption from a city's zoning requirements accomplished by contract functionally resembled a variance, and held that "such departures from standard zoning by law require administrative proceedings, including public hearings ... followed by findings for which the instant [density] exemption might not qualify... Both the substantive qualifications and the procedural means for a variance discharge public interests. Circumvention of them by contract is impermissible." (Id. at p. 182.)

In sum, the OCII's proposed grant of zoning exceptions to this Project by way of amending the Plan documents rather than by variance violates the Plan, the variance requirements of the San Francisco Planning Code and state law, and the uniformity requirement of state law.

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

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### Office Development Annual Limitation ("Annual Limit") Program

The Office Development Annual Limit (Annual Limit) Program became effective in 1985 with the adoption of the Downtown Plan Amendments to the Planning Code (Sections 320-325) and was subsequently amended by Propositions M (1986) and C (1987). The Program defines and regulates the allocation of any office development project that exceeds 25,000 gross square feet (gsf) in area.

A total of 950,000 gsf of office development potential becomes available for allocation in each approval period, which begins on October 17th every year. Of the total new available space, 75,000 gsf is reserved for Small Allocation projects (projects with between 25,000 and 49,999 gsf of office space), and the remaining 875,000 gsf is available for Large Allocation projects (projects with at least 50,000 gsf of office space). Any available office space not allocated in a given year is carried over to subsequent years.

This document reflects the status of the Annual Limit Program, including current availability and summaries of previously approved and pending projects.

Information in this document was last updated on **September 1, 2015**. Inquiries should be directed to Corey Teague at (415) 575-9081 or corey.teague@sfgov.org.

### Summary of Key Figures

	Current Availability	1,188,805 gsf	Pending Availability	903,255 gsf	Pipeline Availability	776,280 gsf
<b>Small Allocation Projects</b> (<50,000 gsf of office space)	Current total square footage available for allocation.		Currently available square footage less 285,550 gsf of pending* projects.		Currently available square footage less 285,550 gsf of pending* projects and 126,975 gsf of pre-application** projects.	
<b>Large Allocation Projects</b> (≥50,000 gsf of office space)	Current total square footage available for allocation.	1,429,763 gsf	Pending Availability -1,678,791 gsf	Currently available square footage less 3,108,554 gsf of pending* projects.	Pipeline Availability -8,529,408 gsf	Currently available square footage less 3,108,554 gsf of pending* projects and 6,850,617 gsf of pre-application** projects.

\* A 'pending project' is one for which an office allocation application has been submitted but not yet acted upon.

\*\* A 'pre-application' project is one for which an environmental review application, preliminary project assessment application, or other similar application has been submitted but for which no office allocation application has yet been submitted.

### EXHIBIT 3



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PENDING OFFICE PROJECTS\*

\*Projects that have submitted an application (B or OFA) pursuant to Planning Code Section 321 (Office Development Annual Limit) but on which no Commission action has yet occurred.

Small Office Cap					
Case No.	Address	Sq. Ft.	Status	Staff	Comments
2009.0065	3433 Third Street	49,229	B filed 1/27/09	Julian Banales	New 5-story office building for Carpenter's Union on vacant lot. May be cancelled due to inactivity (2/18/14).
2014.0567	2101 Mission Street	48,660	B filed on 4/17/14	Brittany Bendix	Legalize change of use from retail and warehouse to office. Planning Commission hearing scheduled for 9/3/15.
2012.1410	77-85 Federal Street	49,730	B filed on 6/5/14	Scott MacPherson	Demo two existing office buildings and construct a 5-story building with ground floor retail and office above.
2015-000509	1125 Mission Street	37,944	B filed on 1/15/15	Julian Banales	Change of use from auto repair.
2014.1315	135 Townsend Street	49,995	B filed on 3/11/15	Rich Sucre	Conversion of existing self storage building.
2013.1511	360 Spear Street (aka 100 Harrison St)	49,992	B filed on 4/3/15	Rich Sucre	Partial conversion of existing ISE.
<b>Subtotal</b>		<b>285,550</b>			

Large Office					
Case No.	Address	Sq. Ft.	Status	Staff	Comments
2012.0640	598 Brannan Street	700,456	B filed on 10/24/12	Elizabeth Puri	Demo of 2 industrial buildings; 2 new office buildings (Central SoMa Project).
2013.1545	645 Harrison Street	99,698	B filed on 7/18/13	Kimberly Durandet	LoD confirmed 14,520gsf as existing legal office space. Revised proposal to convert additional 99,698gsf, plus retain 33,758gsf of PDR on first and second floors.
2013.1593	2 Henry Adams	245,697	B filed on 2/6/14	Rich Sucre	Owner-initiated Article 10 Landmark designation and an Office Allocation. Eligible area limited by recent legislation.
2011.0409	925 Mission Street	803,300	B filed on 8/19/14	Kevin Guy	"5M" Project. Planning Commission informational hearing scheduled for 9/3/15.
2006.1523	50 First Street	1,050,000	B filed on 6/4/14	Kevin Guy	Demo and construction of a mixed-use building with two towers.
2014-002701	GSW Development	0	B filed on 12/12/14	David Winslow	Design approval only. Allocation already approved in Alexandria District.
2014.1063	633 Folsom Street	89,804	B filed on 12/23/14	Mark Luellen	Four story office addition to existing seven story building.
2014.0154	1800 Mission Street	119,599	OFA filed on 1/27/15	Rich Sucre	Conversion in the Armory.
<b>Subtotal</b>		<b>3,108,554</b>			

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PRE-APPLICATION OFFICE PROJECTS\*

\*Projects that have submitted for initial Department review (e.g. environmental review (EE) or Preliminary Project Assessment (PPA)), but have not submitted an application pursuant to Planning Code Section 321 (Office Development Annual Limit).

Small Office Cap					
Case No.	Address	Sq. Ft.	Status	Staff	Comments
2014.1616	1200 Van Ness Ave	27,000	PPA issued 1/14/15.	Mary Woods	Exact office square footage TBD.
2015-010219	462 Bryant Street	49,995	PPA filed on 8/12/15.		An existing single story office building and basement will remain, and five stories of new office space will be added (approximately 49,995 gsf of new office space).
2015-010374	598 Bryant Street	49,980	PPA filed on 8/12/15.	Kansai Uchida	Demo existing gas station and construct a 9-story mixed-use office building with underground parking.
<b>Subtotal</b>		<b>126,975</b>			

Large Office Cap					
Case No.	Address	Sq. Ft.	Status	Staff	Comments
2005.0759	725-735 Harrison	730,940	PPA letter issued 5/16/2013. Revised EE pending.	Debra Dwyer	"Harrison Gardens" (Central SoMa Project). Original proposal changed to office per 2/21/13 application amendment.
2014.0416	610-620 Brannan Street	561,065	EE filed 6/19/14	Elizabeth Puri	Demo and new 11-story mixed use bldg (Central SoMa Project).
2013.0478	559 6th Street	123,972	PPA issued on 6/17/13. PPA expired on 12/17/14.	Kimia Haddadan	Demolish 3 bldgs and construct a mixed-use project (Central SoMa Project).
2013.0970	Pier 70 (Forest City Only)	1,810,000	EE filed on 11/10/14	Andrea Contreras	SF Port project
n/a	2525 16th Street	60,980	Legitimization request filed 11/30/12	Corey Teague	EN Legitimization
2014.0858	565-585 Bryant Street	188,280	PPA issued on 7/25/14	Jeremy Shaw	Demo four existing bldgs and construct an 11-story mixed-use bldg. 2nd PPA proposes only 46,990gsf of office (Central SoMa Project).
2014.0405	330 Townsend Street	394,300	PPA issued on 5/15/14	Steve Wertheim	Demo existing bldg and construct a 21-story office bldg. 2nd PPA proposes only 212,300gsf of office (Central SoMa Project).
2013.0208	SWL 337 ("Mission Rock")	1,300,000	EE filed on 6/4/13	Josh Switzky	Large mixed-use project on Port property.
2015-004256	630-698 Brannan St	1,512,260	PPA issued on 7/24/15. EE filed 7/24/15.	Lisa Chen	Flower Mart replacement project (Central SoMa Project). Two Previous PPAs. 2015-001903 analysed proposed 1,492,450gsf. 2013.0370 was under different ownership, only included Lot 5, and analysed 655,150gsf.

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2014-1208	1500 Mission Street	0	EE filed on 10/23/14	Chelsea Fordham	Demo and new construction of City office space, bldg with 462,800 sq ft of City office space.
2015-009704	505 Brannan Street	168,820	PPA filed on 7/27/15	Steve Wertheim	"Phase II" addition (165', 11 stories) of office space onto an approved 85' "Phase I" office building approved by the Planning Commission on 12/11/14. With this newly planned addition, total building height would now be 250' and contain a total of 306,266 sq ft.
<b>Subtotal</b>		<b>6,850,617</b>			

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#### ANNUAL LIMIT FOR "SMALL" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: **1,188,805**

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Small" Office Annual Limit	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
1985-1986	0	75,000	75,000	No Projects	N/A	0	0	
1986-1987	75,000	75,000	150,000	1199 Bush	1985.244	46,645	46,645	
1987-1988	103,355	75,000	178,355	3235-18th Street	1988.349	45,350	45,350	aka 2180 Harrison Street
1988-1989	133,005	75,000	208,005	2601 Mariposa	1988.568	49,850	49,850	
1989-1990	158,155	75,000	233,155	No Projects	N/A	0	0	
1990-1991	233,155	75,000	308,155	No Projects	N/A	0	0	
1991-1992	308,155	75,000	383,155	1075 Front	1990.568	32,000	32,000	
1992-1993	351,155	75,000	426,155	No Projects	N/A	0	0	
1993-1994	426,155	75,000	501,155	No Projects	N/A	0	0	
1994-1995	501,155	75,000	576,155	No Projects	N/A	0	0	
1995-1996	576,155	75,000	651,155	No Projects	N/A	0	0	
1996-1997	651,155	75,000	726,155	No Projects	N/A	0	0	
1997-1998	726,155	75,000	801,155	No Projects	N/A	0	0	
1998-1999	801,155	75,000	876,155	1301 Sansome	1998.362	31,606	31,606	
1999-2000	844,549	75,000	919,549	435 Pacific	1998.369	32,500		
				2801 Leavenworth	200.459	40,000		
				215 Fremont	1998.497	47,950		
				845 Market	1998.090	49,100	169,550	
2000-2001	749,999	75,000	824,999	530 Folsom	2000.987	45,944		
				35 Stanford	2000.1162	49,000		
				2800 Leavenworth	2000.774	34,945		
				500 Pine	2000.539	44,450	173,339	See also 350 Bush Street - Large
2001-2002	651,660	75,000	726,660	No Projects	N/A	0	0	
2002-2003	726,660	75,000	801,660	501 Folsom	2002.0223	32,000	32,000	
2003-2004	769,660	75,000	844,660	No Projects	N/A	0	0	
2004-2005	844,660	75,000	919,660	185 Berry Street	2005.0106	49,000	49,000	
2005-2006	870,660	75,000	945,660	No Projects	N/A	0	0	
2006-2007	945,660	75,000	1,020,660	No Projects	N/A	0	0	
2007-2008	1,020,660	75,000	1,095,660	654 Minnesota	no case number	43,838	0	UCSF
2008-2009	1,095,660	75,000	1,170,660	No Projects	N/A	0	0	
2009-2010	1,170,660	75,000	1,245,660	660 Alabama Street	2009.0847	39,691	39,691	
2010-2011	1,205,969	75,000	1,280,969	No Projects	N/A	0	0	
2011-2012	1,280,969	75,000	1,355,969	208 Utah / 201 Potrero	2011.0468	48,732		EN Legitimization

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ANNUAL LIMIT FOR "SMALL" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: **1,188,805**

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Small" Office Annual Limit	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
				808 Brannan Street	2012.0014	43,881		EN Legitimization
				275 Brannan Street	2011.1410	48,500		
				385 7th/10th Harrison	2011.1049	42,039		EN Legitimization
				375 Alabama Street	2012.0128	48,189	231,341	EN Legitimization
2012-2013	1,124,628	75,000	1,199,628	No Projects	N/A	0	0	
2013-2014	1,199,628	75,000	1,274,628	3130 20th Street	2013.0992	32,061		
				680 3rd Street	2013.0627	40,000	72,061	
2014-2015	1,202,547	75,000	1,277,547	340 Bryant Street	2013.1650	47,536		
				101 Townsend Street	2014-002385	41,206	88,742	
				<b>Total</b>		<b>1,105,134</b>		

<sup>1</sup> Each approval period begins on October 17

<sup>2</sup> Carried over from previous year

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O-MBA25L10

ANNUAL LIMIT FOR "LARGE" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: **1,429,763**

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Large" Office Annual Limit <sup>3</sup>	Reduction per Section 321.1	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
1985-1986	0	875,000	(475,000)	400,000	No Projects	N/A	0	0	
1986-1987	400,000	875,000	(475,000)	800,000	600 California	1986.085	318,030		
					235 Pine	1984.432	147,500		
					343 Sansome	1985.079	160,449	625,979	
1987-1988	174,021	875,000	(475,000)	574,021	No Projects	N/A	0	0	
1988-1989	574,021	875,000	(475,000)	574,021	No Projects	N/A	0	0	
1989-1990	974,021	875,000	(475,000)	1,374,021	150 California	1987.513	195,503	195,503	
1990-1991	1,178,518	875,000	(475,000)	1,578,518	No Projects	N/A	0	0	
1991-1992	1,578,518	875,000	(475,000)	1,978,518	300 Howard	1989.589	382,582	382,582	aka 199 Fremont Street
1992-1993	1,995,936	875,000	(475,000)	1,995,936	No Projects	N/A	0	0	
1993-1994	1,995,936	875,000	(475,000)	2,395,936	No Projects	N/A	0	0	
1994-1995	2,395,936	875,000	(475,000)	2,795,936	No Projects	N/A	0	0	
1995-1996	2,795,936	875,000	(475,000)	3,195,936	No Projects	N/A	0	0	
1996-1997	3,195,936	875,000	(475,000)	3,595,936	101 Second	1997.484	368,800	368,800	
1997-1998	3,227,136	875,000	(37,582)	4,064,554	55 Second Street	1997.215	283,301		aka One Second Street
					244-256 Front	1998.643	58,650		aka 275 Sacramento Street
					650 Townsend	1997.787	269,680		aka 699-98th Street
					455 Golden Gate	1997.478	420,000		State office building - see also Case No. 1993.707
					945 Battery	1997.674	52,715		
					475 Brannan	1997.470	61,000		
					250 Stewart	1998.144	540,000	1,685,346	aka 2 Folsom/250 Embarcadero
1998-1999	2,379,208	875,000	0	3,254,208	One Market	1998.135	51,822		
					Pier One	1998.646	88,350		Port office building
					554 Mission	1998.321	645,000		aka 560/584 Mission Street
					700 Seventh	1999.167	273,650		aka 625 Townsend Street
1999-2000	2,192,886	875,000	0	3,067,886	475 Brannan	1999.566	2,500	1,061,322	addition to previous approval - 1997.470
					670 Second	1999.106	93,000		
					160 King	1999.027	176,000		
					350 Rhode Island	1998.714	250,000		
					First & Howard	1998.902	854,000		First & Howard bldg #2 (405 Howard), #3 (585-585 Howard), & #4 (580 Howard)
					235 Second	1999.176	180,000		
					500 Terry Francois	2000.127	280,000		Mission Bay 26a
					550 Terry Francois	2000.329	225,004		Mission Bay 28
					899 Howard	1999.583	153,500	2,178,504	
2000-2001	889,382	875,000	0	1,764,382	First & Howard	1998.902	295,000		First & Howard bldg #1 (400 Howard)
					550 Terry Francois	2000.1293	60,150	355,150	Additional allocation (see also 2000.329)
2001-2002	1,409,232	875,000	0	2,284,232	350 Bush	2000.541	344,500		See also 500 Pine Street - Small
					38-44 Tehama	2001.0444	75,000		

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O-MBA25L10

ANNUAL LIMIT FOR "LARGE" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,429,763

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Large" Office Annual Limit <sup>3</sup>	Reduction per Section 321.1	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
					235 Second	2000.319	64,000		modify 1999.176
					250 Brannan	2001.0689	113,540		
					555 Mission	2001.0798	549,000		
					1700 Owens	2002.0300	0*	1,146,040	Alexandria District - West Campus (160,100)
2002-2003	1,138,192	875,000	0	2,013,192	7th & Mission GSA	No Case	514,727	514,727	Federal Building
2003-2004	1,498,465	875,000	0	2,373,465	Presidio Dig Arts	No Case	839,301	839,301	Presidio Trust
2004-2005	1,534,164	875,000	0	2,409,164	No Projects	N/A	0	0	
2005-2006	2,409,164	875,000	0	3,284,164	201 16th Street	2006.0384	430,000	430,000	aka 1409/1499 Illinois
2006-2007	2,854,164	875,000	0	3,729,164	1500 Owens	2006.1212	0*		Alexandria District - West Campus (158,500)
					1600 Owens	2006.1216	0*		Alexandria District - West Campus (228,000)
					1455 Third Street/455 Mission Bay South Blvd/450 South Street	2006.1509	0*		Alexandria District - North Campus (373,487)
					1515 Third Street	2006.1536	0*		Alexandria District - North Campus (202,893)
					650 Townsend	2005.1062	375,151		
					120 Howard	2006.0616	67,931		
					535 Mission	2006.1273	293,750	736,832	
					100 California	2006.0660	76,500		
2007-2008	2,992,332	875,000	0	3,867,332	505-525 Howard	2008.0001	74,500		Additional allocation for First & Howard Building #2
					680 Folom Street	No Case	117,000		Redevelopment - Yerba Buena
					Alexandria District	2008.0850	1,122,980		Establishes Alexandria Mission Bay Life Sciences and Technology Development District ("Alexandria District") for which previously allocated office space and future allocations would be limited to 1,350,000 sq ft to be distributed among designated buildings within district.
					800 Terry Francois	2008.0484	0*		Alexandria District - East Campus (312,932)

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O-MBA25L10

ANNUAL LIMIT FOR "LARGE" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,429,763

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Large" Office Annual Limit <sup>3</sup>	Reduction per Section 321.1	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
					650 Terry Francois	2008.0483	0*		Alexandria District - East Campus (291,867)
					1450 Owens	2008.0690	0*	1,390,980	Alexandria District - West Campus (61,581)
2008-2009	2,476,352	875,000	0	3,351,352	No Projects	N/A	0	0	
2009-2010	3,351,352	875,000	0	4,226,352	850-870 Brannan Street	2009.1026	139,580		aka 888 Brannan Street
					222 Second Street	2006.1106	430,600	560,230	LEED
2010-2011	3,657,122	875,000	0	4,532,122	350 Mission Street	2006.1524	340,320		
					Alexandria District	n/a	200,000		under terms of Motion 17709
					Treasure Island	2007.0903	0	540,320	Priority Resolution Only
2011-2012	3,991,802	875,000	0	4,866,802	Alexandria District	n/a	27,020		under terms of Motion 17709
					850-870 Brannan St	2011.0583	113,753		aka 888 Brannan Street
					444 DeHaro St	2012.0041	90,500		
					460-462 Bryant St	2011.0895	56,475		
					185 Berry St	2012.0409	101,982		aka China Basin Landing
					100 Potrero Ave	2012.0371	70,070		EN Legitimization
					601 Townsend Street	2011.1147	72,600	535,400	EN Legitimization
2012-2013	4,331,402	875,000	0	5,206,402	101 1st Street	2012.0257	1,370,577		Transbay Tower, aka 425 Mission
					181 Fremont Street	2007.0456	404,000		new office/residential building
					1550 Bryant Street	2012.1046	108,399		EN Legitimization
					1100 Van Ness Ave	2009.0885	242,987		CPMC Cathedral Hill MOB
					3615 Cesar Chavez	2009.0886	94,799		CPMC St. Luke's MOB
					345 Brannan Street	2007.0385	102,285		
					270 Brannan Street	2012.0799	189,000		
					333 Brannan Street	2012.0906	175,450		
					350 Mission Street	2013.0276	79,680		Salesforce (No. 2)
					999 Brannan Street	2013.0585	143,292		EN Legitimization - Dolby
2013-2014	1,595,933	875,000	0	2,470,933	1800 Owens Street	2012.1482	700,000	3,610,469	Mission Bay Block 40
					300 California Street	2012.0505	56,450		
					665 3rd Street	2013.0226	123,700		
					410 Townsend Street	2013.0544	76,000		
					889 Brannan Street	2013.0493	10,000		AirBnB - See Also 2011.0583B
					8145 Buome Street	2013.0007	65,000	321,159	
2014-2015	2,149,774	875,000	0	3,024,774	301-505 Brannan Street	2012.1187	137,446		
					100 Hooper Street	2012.0203	284,471		
					390 Main Street	n/a	137,296		MTC Project - Verified on 4/4/15
					250 Howard Street	2014-002085	786,745		aka Transbay Block 5 (195 Beale St)
					510 Townsend Street	2014.0679	269,063	1,595,011	
					Total		19,082,655		

<sup>1</sup> Each approval period begins on October 17

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# O-MBA25L10

## ANNUAL LIMIT FOR "LARGE" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,429,763

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Large" Office Annual Limit <sup>3</sup>	Reduction per Section 321.1	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
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<sup>1</sup> Carried over from previous year

<sup>2</sup> Excludes 75,000 sqf dedicated to "small" projects per Section 321(b)(4)

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# O-MBA25L10

## SMALL OFFICE APPROVALS - STATUS OF ALL PROJECTS

COMPLETE
REVOKED
IN MOD. EXPIRES
NO INFORMATION / NOT APPLICABLE
UNDER CONSTRUCTION
AWAITING ADDITIONAL INFORMATION

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
1986-1987	1985-244	1199 Bush	0289-031	46,845	11026	complete	1991	St. Francis Hospital
1987-1988	1988-249	32-25 18th Street	001-030	46,350	11451	complete		ROBE, aka 2180 Harrison Street
1988-1989	1988-568	2601 Mariposa	4015-001	43,950	11558	complete	1991	ROED
	1988-287	1601 Sisco	7255-002	39,000	11567	doesn't count	n/a	revoked 12/00
1989-1990	1990-238	300 Pacific	0165-008	45,718	13114	doesn't count	n/a	revoked 12/00
1990-1991	1990-568	1075 Front	0111-001	32,000	13381	complete	1993	
1991-1992	1987-847	601 Duboce	3039-001	36,000	13254	doesn't count	n/a	revoked 12/00
1992-1993								No Projects Approved During Allocation Period
1993-1994								No Projects Approved During Allocation Period
1994-1995								No Projects Approved During Allocation Period
1995-1996								No Projects Approved During Allocation Period
1996-1997								No Projects Approved During Allocation Period
1997-1998								No Projects Approved During Allocation Period
1998-1999	1998-362	1301 Sansome	0085-008	31,608	14784	complete	1999	
1999-2000	1998-369	425 Pacific	0175-028	32,500	14871	complete	2003	
	2000-459	2801 Leavenworth	0010-001	40,000	15522	complete	2001	The Cannery
	1998-487	215 Fremont	3738-012	47,950	15939	complete	2002	
	1999-058	38-44 Tehama	3735-111	45,950	15987	doesn't count	n/a	reapproved as large project
	1998-090	845 Market	3705-0918 etc 3705-049	49,100	15940	complete	2006	Bloomington's
2000-2001	1999-821	178 Townsend	3788-012	49,002	16025	doesn't count	n/a	Remov exp 5/2/02; 2008-0470 new E & K appl for residential, building permit application no.200808290851 for residential submitted on 8/29/07; 19408 CPC approves conversion to Residential (M17688) - Revoked on 1/23/09
	2000-087	530 Fulton	3736-017	45,944	16023	complete	2006	Remov exp 6/7/02; permit 20050011808111681 2/06; 12/15/08 - Building Permit Application No. 200811136470 issued for demolition of two buildings on property. To be used for temp Transbay facility. REVOCATION LETTER ISSUED 3/16/09
	1999-300	272 Main	3739-006	46,500	16049	doesn't count	n/a	
	2000-1162	15 Stanford	3785-038	48,000	16070	complete	2007	
	2000-774	2800 Leavenworth	007-008	34,945	16071	complete	2001	The Anchorage
	2000-552	189 New Montgomery	3722-021	49,345	16104	doesn't count	n/a	revoked 18/05
	2000-1269	3433 Third	5203-23	42,000	16107	doesn't count	n/a	building permit application no. 200011014657 withdrawn on 11/8/06. REVOCATION LETTER ISSUED 8/25/07

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O-MBA25L10

SMALL OFFICE APPROVALS - STATUS OF ALL PROJECTS

									COMPLETE
									REVOKED
									IS MOS, EXPIRED
									NO INFORMATION / NOT APPLICABLE
									UNDER CONSTRUCTION
									AWAITING ADDITIONAL INFORMATION
Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments	
	1999.795	177 Townsend	3784-4.7	46,775	16192	doesn't count	n/a	revoked 1/6/05	
	2000.539	300 Pine	256-4 to 9/033	44,450	16113	approved	n/a	18mos exp 9/15/02 - CPC received project status update on 10/11/07 (project is associated with 350 Bush Street - Large Office Approval). Building permit application no. 200011034683 approved by CPS on 9/4/08. Building permit application no. 200806275535 submitted for shoring work (9/4/08 - under review by CPW-BSM)	
	2000.886	150 Powell	327-22	39,174	16119/164	doesn't count	n/a	time limit for construction extended (see Case No. 2002.03638)	
	1998.281	185 Berry	3803-008	49,500	16143	doesn't count	n/a	Project converted to residential use (see Case No. 2006.1299) new approval 2006	
	2000.190	201 Second	3736-097	44,500	16148	doesn't count	n/a	converted to residential use	
	2000.660	35 Hawthorne	3735-047	40,350	16174	doesn't count	n/a	converted to residential use - see 2004.0852 and building permit application no. 200509082369	
	2000.122	48 Tehama	3706-084/085	49,300	16235	doesn't count	n/a	revoked at Planning Commission hearing on 6/9/11	
	2000.723	639 Second	3769-000867371	49,500	16241	doesn't count	n/a	revoked 1/6/05	
	1999.423	695 Second	3769-004867371	49,500	16240	doesn't count	n/a	revoked 5/10/05	
2001-2002	2001.0050	3551 18th Street	3591-018	49,500	16461	doesn't count	n/a	6/28/07 - building permit application no. 200708285480 submitted to revise project and reduce office space to approx. 10,000 sq. ft. REVOCATION LETTER ISSUED 8/16/07	
2002-2003	2002.0223	501 Folsom Street	3743-001	32,000	16616	complete	2006		
2003-2004								No Projects Approved During Allocation Period	
2004-2005	2005.0106	185 Berry Street	3803-006	49,000	17070	complete	2008		
2005-2006								No Projects Approved During Allocation Period	
2006-2007	No Case	854 Minnesota	042-003 & 04	43,939	none	complete	2009	Confirmed by UCSF via 7/13/2007 letter from UCSF and associated Ld	
2007-2008								No Projects Approved During Allocation Period	
2008-2009	2006.1294	110 The Embarcadero	3715-002	41,940	17904	doesn't count	n/a	18mos exp 7/14/10 - E appealed to BofI and overturned on 3/17/09. Application withdrawn and case closed on 12/30/09	
2009-2010	2009.0847	660 Alabama Street	4020-002	39,691	17973	complete	2011	CPC for building permit application no. 201001144798 issued on 3/23/11	
2010-2011								No Projects Approved During Allocation Period	
2011-2012	2011.0468	208 Utah / 201 Polanco	3932-017	48,732	18609	complete	2012	BPA No. 201202080093	
	2012.0014	808 Brannan Street	3786-0040	43,881	18559	complete	2013	BPA No. 201201031584	
	2012.0036	375 Alabama Street	3665-002	48,189	18574	complete	2013	BPA No. 201208201308	
	2011.1048	325 7th / 1009 Harrison	3754-017	42,038	18700	complete	2013	BPA No. 201212115895	
	2011.1410	275 Brannan Street	3789-009	48,500	18672	complete	2013	BPA No. 201207164805	
2012-2013								No Projects Approved During Allocation Period	
2013-2014	2013.0092	3130 20th Street	4083-002	32,081	19186			BPA No. 20130227604 for change of use approved by Planning on 1/6/15 and new existing charges from architect as requested by DBI as of 2/3/15.	
	2013.0627	660 3rd Street	3788-008	40000	19234	complete	2015	BPA No. 201411252480 issued on 2/24/15.	

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SMALL OFFICE APPROVALS - STATUS OF ALL PROJECTS

									COMPLETE
									REVOKED
									IS MOS, EXPIRED
									NO INFORMATION / NOT APPLICABLE
									UNDER CONSTRUCTION
									AWAITING ADDITIONAL INFORMATION
Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments	
2014-2015	2013.1600	340 Bryant Street	3764-061	47506	19311	under construction		SPA 201306177189 issued 7/16/15	

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LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

COMPLETE
REVOKED
18 MOS. EXPIRED
NO INFORMATION / NOT APPLICABLE
UNDER CONSTRUCTION
AWAITING ADDITIONAL INFORMATION

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
1986-1987	1986.085	800 California	0241-003 into 0241-027	318,030	11077	complete	1992	
	1984.432	235 Pine	0267-015	147,500	11075	complete	1991	
	1984.274	83 Columbus	0195-004	81,300	11070	doesn't count	n/a	revoked 12/00
	1985.079	343 Sansome	0239-002	160,449	11076	complete	1991	
1987-1988								No Projects Approved During Allocation Period
1988-1989	1984.199	524 Howard	3721-013	199,965	11683	doesn't count	n/a	Reapproved in 1998 under Case No. 1998.843.
1989-1990	1987.613	150 California	0236-003 into 0236-019	195,503	11828	complete	2001	
1990-1991	1989.589	300 Howard	3719-005 into 3719-018	382,582	13218	complete	2001	aka 199 Fremont Street
1991-1992								No Projects Approved During Allocation Period
1992-1993								No Projects Approved During Allocation Period
1993-1994								No Projects Approved During Allocation Period
1994-1995	1994.105	101 Second Street	3721-072	386,655	13886	doesn't count	n/a	Reapproved in 1997 under Case No. 1997.484.
1995-1996								No Projects Approved During Allocation Period
1996-1997	1997.484	101 Second Street	3721-7275 into 3721-089	368,800	14454	complete	2000	
1997-1998	1997.215	65 Second Street	3708-019A/033/034 into 3708-096	283,301	14542	complete	2002	aka One Second Street
	1996.643	244-256 Front	0236-018	58,650	14601	complete	2001	aka 275 Sacramento Street
	1997.787	650 Townsend	3783-009	269,680	14520	complete	2001	aka 689-68th Street
	No Case	655 Golden Gate	0765-002/003	420,000	none	complete	1998	State office building. See also case no. 1993.707.
	1997.674	945 Battery	0135-001	52,715	14672	complete	1998	
	1997.470	475 Brannan	3787-031	61,000	14685	complete	2001	
	1998.144	250 Stewart	3741-028 into 3741-035	540,000	14604	complete	2002	aka 2 Folsom/250 Embarcadero
	1998.135	One Market	3713-006	51,822	14756	complete	2000	
1998-1999	1998.843	524 Howard	3721-013	201,989	14801	doesn't count	n/a	revoked 6/11 under Case No. 2011.0503
	1998.646	Pier One	9900-001	88,350	none	complete	2003	Port office building

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O-MBA25L10

LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

COMPLETE
REVOKED
18 MOS. EXPIRED
NO INFORMATION / NOT APPLICABLE
UNDER CONSTRUCTION
AWAITING ADDITIONAL INFORMATION

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
	1998.321	554 Mission	3708-015/017/018 into 3708-095	645,000	14893	complete	2003	aka 560/584 Mission
	1999.167	700 Seventh	3799-001 into 3799-008	273,650	14895	complete	2006	aka 625 Townsend
	1999.566	475 Brannan	3787-031	2,500	14884	complete	2001	addition to previous approval - 1997.470
	1998.268	631 Folsom	3750-090	170,000	14750	doesn't count	n/a	project converted to residential - allocation revoked 12/00.
1999-2000	1999.106	670 Second	3788-043/044	60,000	14907	complete	2001	
	1999.027	160 King	3794-025	175,000	14356	complete	2002	
	1998.714	350 Rhode Island	3957-001	250,000	14988	complete	2004	
								18 mos exp 9/2/01. Includes 3 of 4 buildings at First & Howard (see bldg #1 - 400 Howard - below); bldg #2 - 405 Howard (3737-039) - 460,000 gsf office - 200002172133 - complete); bldg #3 - 505-525 Howard (3736-121/114) - 178,000 gsf office - 200610316514 - currently (8/4/08) under review by Planning (see also 2008.001 for additional allocation); bldg #4 - 500 Howard (3721-119) - 216,000 gsf office - 200006172952 - complete).
	1998.902	First & Howard	3721; 3736; 3737	854,000	15006	complete/approved	2003	
	1999.176	235 Second	3736-061 into 3736-123	180,000	15004	complete	2002	

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O-MBA25L10

LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

COMPLETE
REVOKED
18 MOS. EXPIRED
NO INFORMATION / NOT APPLICABLE
UNDER CONSTRUCTION
AWAITING ADDITIONAL INFORMATION

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
	2000.127	500 Terry Francois	3838; 3839 into 8721-001/010	280,000	15010	complete	2008	MB 26a
	1998.766	535 Mission	3721-068	252,000	15027	doesn't count	n/a	revoked and reapproved as residential
	1998.635	2101 Bryant	4080-007	148,000	15044	doesn't count	n/a	project converted to residential - allocation revoked 1/10/05
	2000.329	550 Terry Francois	3839; 3840 into 8721-001/011	225,004	15055	complete	2002	MB 28
	1999.563	899 Howard	3733-079	153,500	15062	complete	2005	
2000-2001	1998.902	First & Howard	3723-008	295,000	16069	complete	2008	First & Howard - Building #1 (400 Howard)
	2000.1293	550 Terry Francois	3839; 3840 into 8721-001/011	60,150	16110	complete	2002	addition to 2000.329.
	2000.1295	Mission Bay 26/2	3840; 3841 into 8721-001-012	145,750	16111	doesn't count	n/a	AKA MB 26 East. returned to cap for approval of 2002.0307
	1999.603	555 Mission	3721-69,70,78...	499,000	16130	doesn't count	n/a	Project revised - allocation revoked and reapproved under Case No. 2007.0798.
	2000.277	801 Market	3705-48	112,750	16140	doesn't count	n/a	project abandoned per letter from sponsor
2001-2002	2000.541	350 Bush	269-2,2a,3,22...	344,500	16273	approved	n/a	18mos exp 5/8/03 - CPC received project status update on 10/11/07 (associated with 500 Pine Street - Small Office Approval). Sponsor email reports that 18-month period expired May 22, 2005 due to appeals. Building permit application no. 200708078938 currently under review by DB/PO/DPW.
	2001.0444	38-44 Tehama	3736-111	75,000	16280	complete	2003	
	2000.319	235 Second	3736-61,62,64-67	64,000	16279	complete	2002	modify 1999.176 - convert warehouse from PDR to office.
	2001.0698	250 Brannan	3774-25	113,540	16285	complete	2002	
	2001.0798	555 Mission	3721-69,70,78-81, 120	549,000	16302	complete	2008	
	2002.0301	Mission Bay 42/4	8709-10	80,922	16397	doesn't count	n/a	revoked and reapproved as 2002.1216 (1600 Owens)
	2002.0300	1700 Owens	8709-007	0"	16398	complete	2007	Alexandria District (160,100). West Campus. 164,828
2002-2003	No Case	7th/Mission GSA	3702-15	514,727	none	complete	2007	Federal Building
	2002.0691	659 Times/201-16th Street	3940-001	429,542	16483	doesn't count	n/a	revoked and reapproved as 2006.0384 (201 16th Street) MB Block X4

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O-MBA25L10

LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

COMPLETE
REVOKED
18 MOS. EXPIRED
NO INFORMATION / NOT APPLICABLE
UNDER CONSTRUCTION
AWAITING ADDITIONAL INFORMATION

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
2003-2004	2001.1039	55 9th Street	3701-063	268,000	16760	doesn't count	n/a	200408111247 issued 5/19/05 - Authorization REVOKED by Planning Commission Motion Nos. 17521 and 17522 for proposal to convert project to residential use.
	2000.1229	Pier 30-32	3770-001	370,000	none	doesn't count	n/a	E, R & T Cases created, no B case created. B/CDC permit approved in 2003 and allocation made for accounting purposes, but permit never acted upon. 2/09 - 370,000 added back to cap because project does not appear to be moving forward.
	No Case	Presidio - Letterman Digital Arts		839,301	none	complete	2006	
2004-2005								No Projects Approved During Allocation Period
2005-2006	2006.0384	201-16th Street	3940-001	430,000	17223	complete	2008	aka 1409-1409 Illinois MB Block X4. 18 mos exp 10/6/07. Project (200607186938) complete 11/19/08
2006-2007	2006.1212	1500 Owens	8709-006	0"	17333	complete	2009	Alexandria District - West Campus (158,500) 20061129869 issued 5/24/07 (aka MBS Blk 41-43, Parcel 5). Under construction. Estimated completion in March 2009.
	2006.1216	1600 Owens	8709-004/010	0"	17332	approved	n/a	Blk 41-43, Parcel 4. 200711097802 issued 6/3/08. Piles driven, no further work performed. Not currently active 5/18/2011
		Alexandria District - North Campus (MB 26/1-3; 1455 Third Street/455 Mission Bay South Blvd/1450 South Street)	8721-012/8720-011/016/017	0"	17401	complete/approved	n/a	MBS Blk 26, Parcels 1-3, project proposes 3 buildings - building permit application no. 200704279921 (455 Mission Bay South Blvd) COMPLETE on 11/17/09 for 6 story office/lab. 200705090778 (450 South Street) COMPLETE on 10/23/09 for parking garage with 7 stories new building. 200806104062 filed on 6/10/08 for new 10-story office building - issued 4/23/10, but not under construction.
	2006.1536	1515 Third Street	8721-012	0"	17400	approved	n/a	MBS Blk 27, Parcel 1 see also 2006.1509. 200806265407 filed 6/26/08 for 6-story office building - currently (9/29/08) being reviewed by SFED. Sold to salesforce.com with 202,983 sf allocation as of April 2011.
	2005.1062	650 Townsend	3783-009	375,151	17440	complete	2009	18 mos exp 12/7/08. 200705151356 issued 2/26/08 - Conversion of existing structure into office - no major construction required. Final Inspection (3/16/09)

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## O-MBA25L10

## LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

COMPLETE
REVOKED
18 MOS. EXPIRED
NO INFORMATION / NOT APPLICABLE
UNDER CONSTRUCTION
AWAITING ADDITIONAL INFORMATION

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
	2006.0616	120 Howard	3717-019	67931	17466	complete	n/a	Construction completed in 2012
	2006.1273	535 Mission	3721-068, 083	293,750	17470	approved	n/a	18 mos exp 2/2/09; 2/12/08 - 200508049463 issued by CPB on 8/21/08. Appealed to Board of Permit Appeals on 8/29/08 (Appeal No. 08-137) - appeal withdrawn and permit reinstated on 8/29/08. Separate permits issued for pile indicators, site cleanup and fencing. 10/24/08 - Construction started in early 2013.
2007-2008	2006.0660	100 California	0236-017	76,500	17544	approved	n/a	18 mos exp 7/31/09. No building permit on file as of 5/18/11. Beacon Capital started the process and then allegedly sold to Broadway Partners, who are reputed to be current owners- no current status  6/16/14 update - Broadway Partners website lists the property as theirs. No building permits relating to project on file. Site visit on 6/17/14 shows no signs of upcoming construction activity.

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## O-MBA25L10

## LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

COMPLETE
REVOKED
18 MOS. EXPIRED
NO INFORMATION / NOT APPLICABLE
UNDER CONSTRUCTION
AWAITING ADDITIONAL INFORMATION

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
	2008.0001	505-525 Howard	3736-001-004/114/121	74,500	17641	approved	n/a	18 mos exp 12/28/08. 2008.10316514 for new construction COMPLETED on 3/11/14. "First & Howard" bldg 3 - see 1998.902. 2005.0733 on file to legalize existing surface parking lot.
	No Case	580 Folsom Street	3735-013	117,000	none	approved	n/a	Redevelopment (Yerba Buena)
	2008.0850	Alexandria District	various	1122980	17709	approved	n/a	Establishes Alexandria Mission Bay Life Sciences and Technology Development District ("Alexandria District") to consolidate previous and future allocations.
	2008.0484	600 Terry Francois	8722-001	0"	17710	approved	n/a	Alexandria District - East Campus (312,932) - schematic design.
	2008.0483	650 Terry Francois	8722-001	0"	17711	approved	n/a	Alexandria District - East Campus (291,367) - schematic design.
	2008.0690	1450 Owens	8709-006	0"	17712	approved	n/a	Alexandria District - West Campus (61,581) - schematic design as of 4/2011.
2008-2009								No Projects Approved During Allocation Period
2009-2010	2009.1028	850-870 Brannan Street	3780-006/007/007A/072	138,580	18095	complete	2013	aka 888 Brannan Street
	2007.0946	Candlestick Point - Hunter's Point	Candlestick Point and Hunter's Point Shipyard	800,000	18102	approved	n/a	NO ALLOCATION GRANTED YET: First 800,000 sq ft of office development within the Candlestick Point - Hunter's Point Project Area to receive priority office allocation over all projects except the Transbay Transit Tower or those within Mission Bay South.
	2006.1106	222 Second Street	3735-063	430,650	18170	approved	n/a	BPA No. 200711309386
2010-2011	No Case	Alexandria District	various	200,000	17709	approved	n/a	additional allocation per terms of Motion 17709 by Letter of Determination
	2006.1524	350 Mission Street	3710-017	335,000	18268	approved	n/a	
	2007.0903	Treasure Island	1939-001/002	0	18332	approved	n/a	Priority Resolution Only for 100,000sqft.
2011-2012	No Case	Alexandria District	various	27020	17709	approved	n/a	additional allocation per terms of Motion 17709 by Letter of Determination
	2011.0583	850-870 Brannan Street	3780-006, 007, 007A, and 072	113,753	18527	approved	2013	aka 888 Brannan Street
	2011.1147	601 Townsend Street	3799-001	72,600	18619	approved	n/a	BPA No. 201408063120 approved by Planning on 8/8/14, but not yet issued by DBI
	2009.0885	1100 Van Ness Ave	0694-010	242,987	18599	doesn't count	n/a	CPMC - Cat Hill MOB: rescinded & reallocated in 2013 cycle
	2011.0899	460-462 Bryant St	3763-015A	59,475	18685	under construction	n/a	BPA No. 201312194664 issued on 5/22/14.
	2012.0041	444 DeHara St	3979-001	90500	18653	under construction	2013	BPA No. 201312194626 issued on 12/31/13.
	2012.0409	185 Berry St	3803-005	101,982	18690	under construction	n/a	aka China Basin Landing.

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## O-MBA25L10



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

November 2, 2015

Tiffany Bohee  
Executive Director  
Office of Community Investment and Infrastructure  
One S. Van Ness Ave., 5<sup>th</sup> Floor  
San Francisco, CA 94103

ALAMEDA COUNTY  
Tom Bates  
Margaret Fujjoka  
Scott Heggerty  
Nate Miloy

CONTRA COSTA COUNTY  
John Glia  
David Hudson  
Karen Mitchell  
Mark Ross

MARIN COUNTY  
Katie Rice

NAPA COUNTY  
Brad Wagenknecht

SAN FRANCISCO COUNTY  
John Avalos  
Edwin M. Lee  
Elio Mar  
(Vice-Chair)

SAN MATEO COUNTY  
David J. Canepa  
Carole Groom  
(Chair)

SANTA CLARA COUNTY  
Cindy Chavez  
Liz Kniss  
(Secretary)  
Jan Pepper  
Rod G. Sinks

SOLANO COUNTY  
James Sporing

SONOMA COUNTY  
Teresa Barrett  
Shirlee Zano

Jack P. Broadbent  
EXECUTIVE OFFICER/APCO

Subject: Response to Comments on the DSEIR for the Event Center & Mixed-Use Development at Mission Bay Blocks 29-32 (Project).

Dear Ms. Bohee:

The Bay Area Air Quality Management District (Air District) is willing to assist the City and County of San Francisco (City) by administering an off-site mitigation program to reduce this Project's significant air quality impacts to the extent feasible. As we have discussed extensively with City staff, the \$321,646 identified in M-AQ-2b is not sufficient to achieve the 17 tons per year of ozone precursor emission reductions needed for this Project. Due to the nature of air quality impacts that need to be mitigated, comparison of the Air District off-site mitigation program identified for this Project to other air district programs is inappropriate and incorrect.

The amount of funds required to reduce 4.4 tons of reactive organic gases (ROG) and 12.6 tons of oxides of nitrogen (NOx), including a 5 percent administration fee, is \$620,922. This amount is based on a study of the Air District's Vehicle Buy Back (VBB) program funds spent over the last 3 years and represents the average cost of reducing ROG and NOx during that three-year period. Only through the VBB program can the Air District achieve the contemporaneous emission reductions and other conditions set forth in M-AQ-2b.

Air District staff continues to be willing to assist the City in implementing an off-site mitigation program. However, the Final Environmental Impact Report Response to Comments includes the following statement: "Acceptance of this fee by the BAAQMD shall serve as an acknowledgement and commitment by the BAAQMD to: (1) implement an emissions reduction project(s) within one year of receipt of the mitigation fee to achieve the emission reduction objectives specified above [i.e. 17 tons of ozone precursors per year]". Given this language, unless the City amends M-AQ-2b to fund this feasible mitigation measure at the \$620,922 level previously discussed with City staff, the Air District will be unable to participate in offsetting this Project's air quality impacts.

EXHIBIT 4

939 ELLIS STREET • SAN FRANCISCO CALIFORNIA 94109 • 415.771.6000 • WWW.BAAQMD.GOV

## O-MBA25L10

### LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
	2012.0371	100 Potrero Ave.	3920-001	70070	18704	complete	2013	EN Legitimation. BPA No. 201212286973 issued 5/6/13.
	2009.0886	3615 Cesar Chavez	6578-021	99,848	18595	doesn't count	n/a	CPMC - St. Luke's MOB; rescinded & reallocated in 2013 cycle
2012-2013	2012.0257	1011 1st Street	3720-001	1,370,577	18725	under construction	n/a	Transbay Tower, aka 425 Mission St. BPA No. 201303132080.
	2007.0456	181 Fremont Street	0308-001	361038	18764	under construction	n/a	BPA No. 201305015894 issued 12/26/13.
	2012.1046	1550 Bryant Street	3923-006	108,399	18732	complete	2013	EN Legitimation. BPA No. 201302069627
	2012.1482	1800 Owens	8727-005	700000	18807	approved	n/a	Currently under review at OCII, DBI and SFPD. Approved 2/14/13.
	2009.0885	1100 Van Ness Ave	0694-010	242987	18890	under construction	n/a	CPMC - Cat Hill MOB
	2009.0886	3615 Cesar Chavez	6578-021	94,799	18886	approved	n/a	CPMC - St. Luke's MOB
	2007.0385	545 Brannan Street	3788-039	102285	19000	under construction	n/a	Construction started in early 2014.
	2012.0799	270 Brannan Street	3774-026	189000	18988	under construction	n/a	BPA No. 201311174802 issued on 4/25/14. Foundation and Superstructure Addendum approved. Architectural Addendum under review by DBI/DPW/PUC.
	2012.0906	333 Brannan Street	3788-042	175,450	18952	under construction	n/a	BPA No. 201306280744 issued 1/9/14. Planning approved Arch addendum on 2/20/14.
	2013.0276	350 Mission Street	3710-017	79,680	18956	under construction	n/a	Salesforce (No. 2). BPA No. 201108011461 issued 9/5/12. Planning approved Arch addendum on 9/11/14.
2013-2014	2013.0585	999 Brannan Street	3782-003	143292	18950	complete	2014	EN Legitimation. BPA No. 201306280728 issued 4/28/14.
	2012.0605	300 California Street	0238-002	56459	19034	approved	n/a	Approved 12/5/13. No BPA filed.
	2013.0226	665 3rd Street	3788-041	123,700	19012	complete	2013	BPA No. 201311222536 issued on 12/31/13 to legalize office space.
	2013.0544	410 Townsend Street	3785-002A	76000	19062	approved	n/a	BPA No. 201311222536 approved by Planning on 7/30/14, but now "in hold" at DBI as of 12/3/14.
	2013.0493	888 Brannan Street	3780-006, 007, 007A, and 072	10000	19049	complete	2014	AuBnB (No. 2) to convert GF parking to office.
	2013.0007	81-85 Bluxome Street	3786-018	55,000	19088	under construction	n/a	BPA No. 201404072588 issued 12/17/14. Arch addendum approved by all agencies except Planning.
2014-2015	2012.1187	501-505 Brannan Street	3786-036	137446	19295	approved	n/a	to BPA No. 201404072588 issued 12/17/14. Arch addendum approved by all agencies except Planning. Project recently submitted a PPA to Planning proposing a "Phase II" for an additional 11 stories and 168,820 sf of office space.
	2012.0203	100 Hooper Street	3808-003	284471	19315	approved	n/a	BPA No. 201410280755 and 201410280757 approved by Planning on 4/13/15, approved by DBI 6/24/15. Currently under review by SFPD and SFPUC.



O-MBA25L10

Tiffany Bohee

November 2, 2015

If you have any questions, please contact Allison Kirk, Senior Environmental Planner, at  
(415) 749-5169 or [akirk@baaqmd.gov](mailto:akirk@baaqmd.gov).

Sincerely,

  
Jean Roggenkamp  
Deputy Executive Officer

cc: BAAQMD Vice Chair Eric Mar  
BAAQMD Director John Avalos  
BAAQMD Director Edwin M. Lee

2



O-MBA25L10

DATE: November 2, 2015  
TO: Tiffany Bohee, OCII Executive Director  
FROM: Chris Kern, City Planning Department  
Sally Oerth, OCII Staff  
SUBJECT: BAAQMD November 2, 2015 letter re Ozone Precursors Offset Mitigation Fee

The City Planning Department and the staff of the Office of Community Investment and Infrastructure (OCII) have reviewed the November 2, 2015 letter from the Bay Area Air Quality Management District regarding the Warriors Event Center and Mixed Use Development Subsequent Environmental Impact Report (SEIR). The letter states that the \$18,030 per weighted ton per year plus a 5% administrative fee mitigation fee identified in Mitigation Measure M-AQ-2b of the SEIR is insufficient to achieve the required reduction of 17.0 tons per year of ozone precursors. The letter proposes that the mitigation fee should be based on the BAAQMD's Vehicle Buy Back Program, at a cost of \$620,922 (or approximately \$36,525 per weighted ton per year) to achieve the required emissions reduction.

As discussed in the Draft SEIR (pages 5.4-41 through 5.4-42) and the Responses to Comments document (pages 13.13-65 through 13.13-69), the offset fee identified in Mitigation Measure M-AQ-2b is based on the California Air Resources Board (CARB) Carl Moyer program cost-effectiveness criteria. These criteria were developed by CARB to establish the upper limit for emissions offset projects eligible to receive funding through the Carl Moyer program.

Planning staff has been in communication with BAAQMD with regard to its suggestion that a higher fee may be warranted to offset project emissions to a less than significant level and found that BAAQMD could not establish that an increased rate beyond that of the Carl Moyer Program plus a five percent administrative fee could meet the "rough proportionality" standard required under CEQA. The Carl Moyer fee structure was reviewed and updated by CARB in March of 2015 and became fully implemented on July 1, 2015. The offset costs cited in Mitigation Measure M-AQ-2b Emission Offsets are consistent with those of the CARB and other operating California air districts. For example, in the Sacramento Metropolitan Air Quality Management District, the off-site construction mitigation fee rate is \$18,030 per ton of excess NOx emissions as of July 1, 2015 (plus an administrative fee of 5 percent) and is based on the cost effectiveness formula established in California's Carl Moyer Incentive Program. In the San Joaquin Valley Air Pollution Control District, the Indirect Source Review (ISR) program requires that an offsite reduction fee of \$9,350/ton plus a 4 percent administration fee be applied

Edwin M. Lee  
MAYOR

Tiffany Bohee  
EXECUTIVE DIRECTOR

Maria Rosales  
CHAIR

Miguel Bustos  
Marilyn Mondejar  
Leah Pimentel  
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COMMISSIONERS

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EXHIBIT 5



O-MBA25L10

Tiffany Bohee, OCII Executive Director  
Page 2

ER-2014-919-97  
November 2, 2015

for NOx emission reductions that cannot be achieved through onsite emission reduction measures. Furthermore, the offset costs in Mitigation Measure M-AQ-2b is consistent or even higher than comparable offset programs in the SFBAAB.<sup>1</sup>

The BAAQMD's November 2, 2015, letter does not establish that the CARB cost-effectiveness criteria are inappropriate for determining the offset costs under Mitigation Measure M-AQ-2b. Based on the information and analysis presented in the Draft SEIR, the Responses to Comments and supporting technical analyses, Planning Department and OCII staffs continue to believe that the offset fee established in Mitigation Measure M-AQ-2b is sufficient to achieve the required emissions offsets. In addition, as discussed in the Responses to Comments document, Mitigation Measure M-AQ-2b has been revised since publication of the Draft SEIR to allow the project sponsor to directly implement an emissions offset project as an alternative to entering into an agreement with the BAAQMD.

Therefore, for the reasons summarized above and discussed in greater detail in the SEIR and Responses to Comments, the November 2, 2015, letter from the BAAQMD does not alter the analysis or conclusions reached in the SEIR.

<sup>1</sup> Keinath, Michael, Rambol Environ, 2015. Analysis of the Proposed Offset Program for the Golden State Warriors. October 19, 2015.

O-MBA26S8



tel: 916.455.7300 • fax: 916.244.7300  
1010 F Street, Suite 100 • Sacramento, CA 95814

November 9, 2015

**SENT BY U.S. MAIL AND EMAIL (Board.of.Supervisors@sfgov.org)**

Budget and Finance Committee  
City and County of San Francisco  
Board of Supervisors  
1 Dr. Carlton B. Goodlett Place  
San Francisco, CA 94102

**RE: Comments on November 9, 2015 Agenda Item Nos. 1-4 re: Warriors  
Event Center at Mission Bay, Mission Bay Transportation  
Improvement Fund and Related Actions**

Dear Budget and Finance Committee Members:

This firm represents the Mission Bay Alliance (the "Alliance") with respect to the Warriors Event Center Project ("Project"). These comments address the Final Subsequent Environmental Impact Report for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("SEIR") as well as the Budget and Finance Committee's consideration and approvals for the Project itself.

As explained in this firm's November 3, 2015, Letter to the San Francisco Municipal Transportation Agency ("MTA"), Board of Directors regarding their November 3, 2015, Agenda Item No. 13, the SEIR is defective as an informational document with respect to the analysis and public disclosure of impacts and mitigation measures regarding transportation under the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq. ("CEQA")). Specifically, the SEIR does not describe the approval of the Mission Bay Transportation Improvement Fund ("MBTIF") as a mitigation measure. Yet the MBTIF is essential to the City's attempts to mitigate the Project's transportation-related impacts. The City's strategy of conflating analysis of the Project's design features and mitigation measures violates CEQA. (See, e.g., *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645.) The prejudice associated with the City's strategy, in addition to obscuring the City's public subsidy for the Project, is that the EIR "fail[s] to consider whether other possible mitigation measures would be more effective." (*Id.* at 657.)

The City also appears to rely on the incorporation of the MBTIF into the Project description in order to conceal from the public the City's failure to require full mitigation of the Project's impacts from the applicant. A fundamental principle of CEQA is that

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[LC-PD-1]



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Budget and Finance Committee  
November 9, 2015  
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development projects should mitigate their impacts to the extent feasible. (See, e.g., Pub. Resources Code, § 21002; see also CEQA Guidelines, § 15126.4.) With respect to the Project's transportation impacts, the City deviates from this principle and instead adopts an odd, ad hoc "fair share" fee program to mitigate Project-level impacts. (*Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173 (*Anderson First*)). As a threshold matter, the SEIR never discloses to the public that it essentially relies upon "fair share" payments from the Project in order to mitigate its Project-level transportation impacts, which renders the SEIR defective as an informational document. Had the SEIR described the Project's approach to mitigating transportation impacts, it would have been apparent that the SEIR failed to disclose necessary information about this fair share program.

The payment of "fair share" impact fees may constitute adequate mitigation if the payments "are part of a reasonable plan of actual mitigation that the relevant agency commits itself to implementing." (*Id.* at 1188-1189.) The *Anderson First* decision identified the information that is required in an EIR to establish the adequacy of a "fair share" mitigation measure, which includes the following:

- (i) An identification of the required improvement;
- (ii) An estimate of the cost of the required improvement;
- (iii) Sufficient information to determine how much the project would pay towards the improvement; and
- (iv) The fees must be part of a reasonable, enforceable plan or program sufficiently tied to the actual mitigation of the impacts at issue.

(*Ibid.*)

The SEIR fails to provide this necessary information, and never even mentions the MBTIF. While the SEIR does mention the Transportation Management Plan ("TMP") and Transit Service Plan ("TSP") as addressing the Project's transportation impacts, the SEIR fails to identify the total costs of the improvements, the Project's allocated contribution, and the enforceable plan or program to contribute the Project's "fair share." The new information contained within this Committee's agenda packet regarding the MBTIF and other related matters cannot substitute for full disclosure of the selected approach to mitigation of transportation related impacts in the SEIR.

In addition, the actions on November 6, 2015, by the MTA, and this Committee's planned actions today with respect to approval of the MBTIF and the grant of street and easement vacations are contrary to California public disclosure laws with respect to economic development subsidies. California law requires the City to provide public notice and a public hearing, as well as detailed information about the purpose, nature, extent and effect subsidies, prior to commitment. (Gov. Code, § 53083.) The Budget and

1  
[LC-PD-1]  
cont.

O-MBA26S8

Budget and Finance Committee  
November 9, 2015  
Page 3 of 3

Legislative Analyst's Memorandum ("BLA Memo"), along with the SFMTA Cost Estimate spreadsheet make clear that there is an estimated revenue shortfall of \$29,916,666, which will be financed through sale of SFMTA revenue bonds or other City financing source. (BLA Memo, pp. 7-8.) Payment of these Project mitigation costs by the City is an economic development subsidy, even if the loan is eventually repaid. (Gov. Code, §53083, subd. (g)(1).) Moreover, the summary vacation of streets and easements likely has value, yet no value is disclosed. Thus, the City must now comply with the substantive and procedural mandates of Government Code section 53083 prior to approving subsidies in the form of loans and other benefits included in the MBTIF and other related City actions and approvals, that provide transportation, infrastructure, public safety and other mitigation for Project impacts.

\* \* \*

Please feel free to contact my office with any questions about the information contained in this letter.

Very truly yours,

**SOLURI MESERVE**  
A Law Corporation

By:



Osha R. Meserve

ORM/mre

1  
[LC-PD-1]  
cont.





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1010 F Street, Suite 100 • Sacramento, CA 95814

O-MBA27S9

November 10, 2015

**SENT BY PERSONAL DELIVERY AND VIA EMAIL**  
**(commissioner.btan@gmail.com)**

Bryant Tan, President  
and Members of the Entertainment Commission  
City and County of San Francisco  
1 Drive Carlton B. Goodlett Place  
San Francisco, CA 94102

**RE: Comments on November 10, 2015, Regular Agenda Item (a)  
Golden State Warriors Event Center  
Place of Entertainment Permit and CEQA Findings**

Dear President Tan and Commissioners:

This firm represents the Mission Bay Alliance (the “Alliance”) with respect to the Warriors Event Center Project (“Project”). These comments address the Final Subsequent Environmental Impact Report for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (“SEIR”) and the Entertainment Committee’s consideration of the Place of Entertainment Permit and CEQA Findings.

We have reviewed this Commission’s agenda and proposed Resolution provided to us today, but have been informed that there is neither an explanatory staff report nor analysis accompanying the Commission’s proposed actions.

Consideration of the Place of Entertainment Permit is premature and unlawful because the entertainment uses proposed by the Warriors sports arena are not a primary or secondary use allowed under the Mission Bay South Redevelopment Plan, as explained by my co-counsel Susan Brandt-Hawley on behalf of the Alliance in submissions to the OCII in July, October, and November 2015, and testimony before the OCII on November 3, 2015.

The Event Center Project SEIR does not comply with CEQA, as described in the Alliance’s many comments on the SEIR submitted to OCII. Over the last three months, the Alliance has reviewed and commented on material inadequacies in the expedited environmental review process. This Commission and the Board of Supervisors cannot fully consider and adequately mitigate the Event Center’s many significant impacts without the benefit of an EIR that complies with CEQA.

O-MBA27S9

Entertainment Commission  
City and County of San Francisco  
November 10, 2015  
Page 2 of 3

The CEQA findings adopted by the San Francisco Municipal Transportation Agency (“MTA”) and being considered by this Commission are premature and unsupported, as explained in the Alliance’s comments on the Draft Subsequent Environmental Impact Report (“DSEIR”), as well as letters submitted following the Final SEIR by this office and by Alliance co-counsel Thomas Lippe and Susan Brandt-Hawley.

As explained in this firm’s November 3, 2015, letter to the MTA, Board of Directors regarding their November 3, 2015, Agenda Item No. 13, incorporated by reference, the SEIR is defective and cannot be relied upon as an informational document with respect to the analysis and public disclosure of impacts and mitigation measures regarding transportation under the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq. (“CEQA”). Specifically, the SEIR does not describe the approval of the Mission Bay Transportation Improvement Fund (“MBTIF”) as a mitigation measure. The MBTIF is essential to the City’s attempts to mitigate the Project’s transportation-related impacts and its omission from the SEIR precludes this Commission’s consideration of a Place of Entertainment Permit. The City’s strategy of conflating analysis of the Project’s design features and mitigation measures violates CEQA. (See, e.g., *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645.)

The SEIR’s inadequate traffic analysis is explained in reports and letters submitted to the City and OCII throughout the administrative process for this project, as noted above, all of which are incorporated by reference. In particular, I respectfully direct the Commission’s attention to the attached letters and reports from my co-counsel Thomas Lippe and experts Smith Engineering & Management, and Larry Wymer & Associates, Traffic Engineering.

The Alliance requests that the Commission decline to make CEQA findings and decline to approve the Place of Entertainment Permit.



O-MBA27S9

Entertainment Commission  
City and County of San Francisco  
November 10, 2015  
Page 3 of 3

Please feel free to contact my office with any questions about the information contained in this letter.

Very truly yours,

**SOLURI MESERVE**  
A Law Corporation

By:

  
Patrick Soluri

PS/mre

Attachments:

November 10, 2015, Letter from Smith Engineering & Management (2 letters)  
November 9, 2015, Letter from Soluri Meserve, A Law Corporation  
November 2, 2015, Letter from Larry Wymer & Associates  
November 2, 2015, Letter from Smith Engineering & Management  
July 27, 2015, Letter from Thomas N. Lippe

O-MBA27S9

SMITH ENGINEERING & MANAGEMENT



November 10, 2015

Mr. Tom Lippe  
Law Offices of Thomas N. Lippe, APC  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Responses to Comment on Draft Subsequent Environmental Impact Report for Event Center and Mixed Use Development at Mission Bay Blocks 29-32. SCN:2014112045**

P15003

Dear Mr. Lippe:

This is a continuation of my November 2, 2015 review of the Responses to Comment ("the RTC") on the Draft Subsequent Environmental Impact Report (hereinafter "the DSEIR") on the above referenced Project in the City and County of San Francisco (hereinafter "the City"). As I was a commenter on the DSEIR in regard to matters involving transportation and circulation in a letter dated July 26, 2015 which was transmitted as Exhibit 1 to your comment letter of July 27, 2015, my current comments focus on the responses to my own comments and yours on that subject. In addition, several others including representatives of BARTD, Caltrans, Caltrain, UCSF and other have filed comments that parallel and reinforce our own. I address the responses to those comments as well.

My qualifications to perform this review were thoroughly documented in my letter of comment on the DSEIR dated July 26, 2015 and are incorporated herein by reference.

This continuation of my comments focuses on emergency response and considerations of emergency access to the UCSF hospitals adjacent to the Project site.

TRAFFIC • TRANSPORTATION • MANAGEMENT  
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## O-MBA27S9

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### Emergency Response and Hospital Access

Our comments of November 2, 2015 concluded with the very brief remarks on SEIR Response TR – 9 which concerned comments on emergency response and UCSF hospital access. These additional comments offer more detailed observations on that response.

#### Inadequacy of Analysis of Congestion and Delay at Critical Intersection of Sixteenth – Seventh and Mississippi Streets

Response TR-9 states that under existing-plus-Project conditions, the majority of the study intersection in the vicinity of the Project site and the UCSF Medical Center Phase One site are projected to operate at LOS E or better. The exception is the intersection of Seventh, Mississippi and Sixteenth Streets which would change from LOS E to dysfunctional LOS F. The problem with the response is twofold. First, this overburdened intersection is on the primary emergency access routes to the UCSF hospitals from the East Bay, Downtown San Francisco, SOMA and most of the central and northern parts of the City. Hence, the so called "exception" is actually a critical failure. Second, the SEIR's analysis of the intersection understates the level of congestion there because it fails to account for the portion of time when train movements at the adjacent at-grade crossing block movements on Sixteenth. In the 5 –to – 6 pm commute peak hour, according to current Caltrain schedules, between 10 and 12 trains preempt this crossing, and 9 to 10 in the 6 – to – 7 pm hour. This means that the Sixteenth Street leg of the intersection will be blocked for about 9 minutes or more in the 5 –to-6 pm peak and about 7.5 minutes or more in the 6 – to – 7 pm hour. In other words, movements to and from Sixteenth east of the subject intersections will be blocked between 12.5 and 15 percent of the time in these hours – and the effect of this blockage wasn't accounted for in the SEIR analysis.

#### Lack of Any Traffic Analysis of Intersections of Eighth – Harrison and Eighth – Bryant and Related I-80 Ramps That Are on Critical Access Routes to UCSF Hospitals

Another problem with the SEIR response regarding the Project's effects on emergency response and emergency access is that the SEIR failed to analyze the complex of the intersections of Eighth with Harrison and Eighth with Bryant and their related I-80 ramps at all. These heavily congested intersections are on the primary emergency access routes to the UCSF Mission Bay hospitals from the East Bay and from Downtown, most of the SOMA and northern San Francisco. The access route via these intersections on Eighth are particularly crucial whenever there is an overlapping Giants event that tends to preempt access via the Third/Fourth Street corridor.

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[LC-TR-13]

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### SEIR's Underestimate of Numbers of Arena Event Attendees Traveling in 5-to-6 PM Evening Commute Peak Conceals the Extent of Impact on Emergency Services and Access to UCSF Hospitals

The SEIR, based on data on time of turnstile entry to the "paid" area of the Warriors current venue, Oracle Arena and at the Barclay Center in Brooklyn (home count of the Nets), that only about 5 percent of weekday arena event attendees traveling to an event starting at 7:30 pm would be traveling on the transportation system between 5 and 6 pm (the pm commute peak hour). Our comments of July 26, 2015 and November 2, 2015 presented cogent reasons why those turnstile based assumptions grossly understate the number of attendees to a 7:30 pm start basketball game would be traveling on the transportation system in the 5-to-6 pm peak commute hour. Those reasons include:

- The offset between getting off the transit system or out of a car in a parking spot and the time of actual passage through the ticket turnstiles, even for people who go straight in after arrival,
- The offset between arena turnstile passage time and the actual duration of travel time on the transportation system that would put people on the system during the peak hour.
- The offset between turnstile passage time and actual arrival time in the arena area for those who go into nearby restaurants and bars to eat a meal or have a drink before entering the arena or those who just hang around outside to meet up with friends traveling independently, especially perhaps to exchange a ticket.

The SEIR has ignored these considerations and persisted in assuming that only a tiny fraction of arena attendees would be traveling in the 5-to-6 pm evening commute peak hour.

In our prior comments, we have pointed out that national TV broadcasts of weeknight Warrior games which typically start at 6 pm, (and possibly national broadcasts of other arena events) would also cause a very high portion of event attendees to be traveling in the 5-to-6 pm commute peak hour and requested that this be analyzed as a separate case in the SEIR. The SEIR persists in refusing to consider this scenario.

Both of these considerations – the attendees who travel to the Project area long before passing through the arena turnstiles and the attendees coming to a national TV game start – would intensify emergency service and hospital access problems in the 5-to-6 pm commute peak hour well beyond anything analyzed in the SEIR and most importantly, compound the critical emergency service and UCSF hospital access problem issues related to the Sixteenth – Seventh – Mississippi – Caltrain

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[LC-TR-13]  
cont.



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rail crossing complex as well as the Eighth – Harrison / Eighth – Bryant / I-80 ramps complex as described above.

### The SEIR Refuses To Quantify Impacts on Emergency Vehicle Travel

Another commenter requested that the SEIR estimate emergency vehicle travel times with and without an event for the proposed Project. SEIR Response TR-9 refuses to do so. It claims that because the infrastructure supporting UCSF hospital facilities is currently incomplete, such a projection is it feasible. We note, however, that the SEIR has not hesitated to estimate LOS and delay times on the incomplete is roadway network for ordinary predictions of Project traffic impacts (for instance, at Owens and Sixteenth without Owens yet connected through to Mariposa). This inconsistency is an unacceptable evasion. If the SEIR is unable to estimate emergency response time, then the entire analysis of effects on all emergency services is without foundation, uselessly conclusory and inadequate.

### Public Relations Response To Emergency Access Impacts Irrelevant

SEIR Response TR-9 continues, stating that strategies to provide attendees with suggested driving routes to and from the 950 parking spaces within the Project site would alleviate interference of that traffic with emergency vehicle traffic. However, most of the on-site spaces would be held by VIP season ticket holders. These drivers will determine quickly various routes that work to their own advantage to minimize their own travel time, rather than following suggested routes to fine-tune recommended event access/egress routes that avoid primary emergency vehicle routes. The notion that pre-event and post-event recommended driving routes all could be revised based on monitoring is nonsense because knowledgeable regular attendees will follow their own notion of what works best for them, not public relations advisories.

### Effects of Event Coordinator and PCO Management Doubtful

The next section of SEIR Response TR-9 indicates that at the times when northbound lanes of third closed in between Sixteenth and South Streets (mostly during post-event times), PCO's would be available to open the emergency barricades to allow northbound emergency vehicle traffic through. While the PCOs may get the emergency barricades out of the way, whether they can safely clear swarming pedestrians from the "closed" street section is an open question.

The response indicates that the Event Transportation Coordinator would inform emergency service dispatchers of the dates and times when there would be temporary closure of Third Street following an event so that emergency vehicles could be advised to take routes other than Third Street. However this is not very

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[LC-TR-13]  
cont.

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useful if the location of the emergency dictates that emergency services really need to travel on Third Street.

This response also observes that drivers must comply with California vehicle code article 21806 requiring the drivers to clear a way to for authorized emergency vehicles, drive to the right road curb, stop, and remain stopped until the emergency vehicle has passed. This is a nonsensical evasion of the key issue which is that when traffic is queued in gridlock, it becomes very difficult and potentially dangerous for drivers to clear the way for emergency vehicles.

For smaller events where there are fewer PCOs, the response claims that PCOs would be stationed at key locations monitoring traffic conditions and could be reassigned to respond to conflicts between event center traffic and UCSF hospital access. It is questionable that PCOs could relocate quickly enough to be of effective assistance in an emergency access matter at another location.

### Effective Facilitation of Privately Driven Vehicles in Emergencies Doubtful

The next section of the ResponseTR-9 claims that persons accessing UCSF medical Center emergency room and Urgent Care Center using private vehicles rather than authorized emergency vehicles would be able to use the transit-only lanes provided for the 22 Fillmore transit priority on 16th Street. This begs the questions of how anxious non-professional drivers, probably making their first emergency trip of this nature, would know the bus lanes are there, that they're eligible to use them, or how they will safely get around the lumbering, overloaded buses using the lanes and how they would be distinguished from casual bus lane violators.

### Failure to Address Access to Hospitals for Doctors, Other Caregivers and Support Staff

UCSF's comments on the DSEIR included the observation that adverse traffic impacts on the hospitals is not limited to emergency vehicles. Doctors, other caregivers and support staff must have reasonably unobstructed access to and from the facilities at all times. Nowhere does the SEIR address this issue.

### **Conclusion**

Because of all of the foregoing, the SEIR's conclusions regarding the Project's impacts on emergency access are unsupported and unsupportable. A more realistic appraisal of the Project's impacts on emergency service and hospital access is required as is a more realistic set of mitigation measures.

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[LC-TR-13]  
cont.



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Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.



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November 10, 2015

Mr. Tom Lippe  
Law Offices of Thomas N. Lippe, APC  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Responses to Comment on Draft Subsequent Environmental Impact Report for Event Center and Mixed Use Development at Mission Bay Blocks 29-32. SCN:2014112045**

P15003

Dear Mr. Lippe:

This is a continuation of my November 2, 2015 review of the Responses to Comment ("the RTC") on the Draft Subsequent Environmental Impact Report (hereinafter "the DSEIR") on the above referenced Project in the City and County of San Francisco (hereinafter "the City"). As I was a commenter on the DSEIR in regard to matters involving transportation and circulation in a letter dated July 26, 2015 which was transmitted as Exhibit 1 to your comment letter of July 27, 2015, my current comments focus on the responses to my own comments and yours on that subject. In addition, several others including representatives of BARTD, Caltrans, Caltrain, UCSF and other have filed comments that parallel and reinforce our own. I address the responses to those comments as well.

My qualifications to perform this review were thoroughly documented in my letter of comment on the DSEIR dated July 26, 2015 and are incorporated herein by reference.

This continuation of my comments focuses on use of certain sites owned by the Port of San Francisco for parking in support of the Warriors Arena Project.

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The revised parking analysis, SEIR Appendix TR-X, identifies additional parking areas to the south of the Project site that are not addressed in the DSEIR. We note that the nearer site, described as 'the Nineteenth Street site' in Appendix TR-X, is located within the Port of San Francisco's Port Waterfront Land Use Plan Southern Waterfront Subarea and designated as part of the Pier 70 Waterfront Opportunity Area. The site is within the Union Iron Works Historic District (listed on the National Register of Historic Places. Building 40 within the site has been determined to be a contributing resource to the Historic District although the Port has determined that its removal would not affect the historic significance of the District. The Port currently plans to construct a 250 space parking lot on the site. SEIR Appendix TR-X assumes the Port will have done so and that the parking lot will be operational prior to completion of the proposed Project and that it will be made available for use of Project arena event attendees. However, given the complications of the Historic designation, compatibility with the Pier 70 Plans and with the Port's own purposes in developing this parking for support of Pier 70 and the Historic District, the assumptions that this parking will be developed in advance of completion of the proposed Project and will be made available to support the Project's arena event parking over the long term are extremely optimistic and inconsistent with the good faith effort to disclose impact required by CEQA.

The other parking site identified in Appendix TR-X is located on the Southern Waterfront with its nearest corner 1.2 miles south of the nearest corner of the Project site. Portions of the site are located within the San Francisco Bay Conservation and Development Commission's (BCDC) shoreline band jurisdiction. The site is currently used for off-site storage of trailers supporting Moscone Center. The site could support development of an up to 800 space parking lot. Because of the distance from the proposed Project site, it would require shuttle bus service connections. Because considerations such as BCDC approval, development of a suitable place for relocating the off-site trailer parking that supports Moscone Center and whether parking this far from the proposed Project site and located in a remote industrial wasteland would be attractive to patrons have not been addressed, the suitability of this parking area remains speculative. Hence, Response TR-9's assumptions regarding dispersal of parking locations itself remains speculative.

### Conclusion

Because of the speculative nature of these parking proposals with respect to service of events at the proposed arena, they cannot be considered clear elements that support the project or disperse its traffic.

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Page 3

Sincerely,

Smith Engineering & Management  
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Daniel T. Smith Jr., P.E.



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[LC-TR-17]



O-MBA27S9



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November 9, 2015

**SENT BY U.S. MAIL AND EMAIL (Board.of.Supervisors@sfgov.org)**

Budget and Finance Committee  
City and County of San Francisco  
Board of Supervisors  
1 Dr. Carlton B. Goodlett Place  
San Francisco, CA 94102

**RE: Comments on November 9, 2015 Agenda Item Nos. 1-4 re: Warriors  
Event Center at Mission Bay, Mission Bay Transportation  
Improvement Fund and Related Actions**

Dear Budget and Finance Committee Members:

This firm represents the Mission Bay Alliance (the “Alliance”) with respect to the Warriors Event Center Project (“Project”). These comments address the Final Subsequent Environmental Impact Report for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (“SEIR”) as well as the Budget and Finance Committee’s consideration and approvals for the Project itself.

As explained in this firm’s November 3, 2015, Letter to the San Francisco Municipal Transportation Agency (“MTA”), Board of Directors regarding their November 3, 2015, Agenda Item No. 13, the SEIR is defective as an informational document with respect to the analysis and public disclosure of impacts and mitigation measures regarding transportation under the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq. (“CEQA”). Specifically, the SEIR does not describe the approval of the Mission Bay Transportation Improvement Fund (“MBTIF”) as a mitigation measure. Yet the MBTIF is essential to the City’s attempts to mitigate the Project’s transportation-related impacts. The City’s strategy of conflating analysis of the Project’s design features and mitigation measures violates CEQA. (See, e.g., *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645.) The prejudice associated with the City’s strategy, in addition to obscuring the City’s public subsidy for the Project, is that the EIR “fail[s] to consider whether other possible mitigation measures would be more effective.” (*Id.* at 657.)

The City also appears to rely on the incorporation of the MBTIF into the Project description in order to conceal from the public the City’s failure to require full mitigation of the Project’s impacts from the applicant. A fundamental principle of CEQA is that

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development projects should mitigate their impacts to the extent feasible. (See, e.g., Pub. Resources Code, § 21002; see also CEQA Guidelines, § 15126.4.) With respect to the Project’s transportation impacts, the City deviates from this principle and instead adopts an odd, ad hoc “fair share” fee program to mitigate Project-level impacts. (*Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173 (*Anderson First*).) As a threshold matter, the SEIR never discloses to the public that it essentially relies upon “fair share” payments from the Project in order to mitigate its Project-level transportation impacts, which renders the SEIR defective as an informational document. Had the SEIR described the Project’s approach to mitigating transportation impacts, it would have been apparent that the SEIR failed to disclose necessary information about this fair share program.

The payment of “fair share” impact fees may constitute adequate mitigation if the payments “are part of a reasonable plan of actual mitigation that the relevant agency commits itself to implementing.” (*Id.* at 1188-1189.) The *Anderson First* decision identified the information that is required in an EIR to establish the adequacy of a “fair share” mitigation measure, which includes the following:

- (i) An identification of the required improvement;
- (ii) An estimate of the cost of the required improvement;
- (iii) Sufficient information to determine how much the project would pay towards the improvement; and
- (iv) The fees must be part of a reasonable, enforceable plan or program sufficiently tied to the actual mitigation of the impacts at issue.

(*Ibid.*)

The SEIR fails to provide this necessary information, and never even mentions the MBTIF. While the SEIR does mention the Transportation Management Plan (“TMP”) and Transit Service Plan (“TSP”) as addressing the Project’s transportation impacts, the SEIR fails to identify the total costs of the improvements, the Project’s allocated contribution, and the enforceable plan or program to contribute the Project’s “fair share.” The new information contained within this Committee’s agenda packet regarding the MBTIF and other related matters cannot substitute for full disclosure of the selected approach to mitigation of transportation related impacts in the SEIR.

In addition, the actions on November 6, 2015, by the MTA, and this Committee’s planned actions today with respect to approval of the MBTIF and the grant of street and easement vacations are contrary to California public disclosure laws with respect to economic development subsidies. California law requires the City to provide public notice and a public hearing, as well as detailed information about the purpose, nature, extent and effect subsidies, prior to commitment. (Gov. Code, § 53083.) The Budget and



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Legislative Analyst's Memorandum ("BLA Memo"), along with the SFMTA Cost Estimate spreadsheet make clear that there is an estimated revenue shortfall of \$29,916,666, which will be financed through sale of SFMTA revenue bonds or other City financing source. (BLA Memo, pp. 7-8.) Payment of these Project mitigation costs by the City is an economic development subsidy, even if the loan is eventually repaid. (Gov. Code, §53083, subd. (g)(1).) Moreover, the summary vacation of streets and easements likely has value, yet no value is disclosed. Thus, the City must now comply with the substantive and procedural mandates of Government Code section 53083 prior to approving subsidies in the form of loans and other benefits included in the MBTIF and other related City actions and approvals, that provide transportation, infrastructure, public safety and other mitigation for Project impacts.

\* \* \*

Please feel free to contact my office with any questions about the information contained in this letter.

Very truly yours,

SOLURI MESERVE  
A Law Corporation

By:



Osha R. Meserve

ORM/mre

O-MBA27S9



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November 2, 2015

Tom Lippe  
Law Offices of Thomas N. Lippe APC  
201 Mission St., 12th Floor  
San Francisco, CA 94105

**RE: Responses to RTC - Responses to Comments on the Draft Subsequent Environmental Impact Report-  
Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (SCN:2014112045)**

Mr. Lippe,

This letter summarizes my responses to the Response to Comments published on October 23, 2015. These are the professional opinions of Larry Wymer, licensed California Traffic Engineer (#1955).

**OPINION 1 - The DSEIR's Transportation and Circulation analysis does not adequately analyze the entirety of the study area impacted by the development**

**OPINION 2 - The DSEIR's Transportation and Circulation analysis does not analyze impacted study intersections and ramps in the SoMa and North Mission Bay areas, most notably those between Market Street and King Street**

I maintain the opinion that the study area should be expanded beyond those assumed within the SEIR to the SoMa area to incorporate relevant travel patterns which would exist for both the proposed project and the "the previous proposed arena site as described within the memorandum report titled "Travel and Parking Demand Estimates for the Proposed Event Center and Mixed Use Development at Piers 30-32 and Seawall Lot 330" which was dated August 9, 2013.

The RTC states that my comment:

*"...noted that because some of the basketball game attendees would be arriving from the San Francisco downtown and Financial District areas, they would be required to pass through SoMa to arrive at the project site, so that additional intersections in the SoMa area would have to be evaluated. Mode of travel and place of origin surveys of baseball game attendees conducted by the SF Giants, as well as available parking occupancy surveys, suggest that many of those game attendees that drove to work at their jobs in the Financial District and SoMa areas, tend to walk, ride transit, or take a taxi to AT&T Park, leaving their cars at their commuter parking locations in order to avoid the evening commute congestion that*

*typically occurs near I-80 and AT&T Park and having to re-park their cars at game-day rates. It is likely*

*that a similar condition would occur with the proposed project, with many of those working in downtown*



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*riding Muni or special event shuttles, and taking taxis or TNC vehicles2, such as Uber or Lyft to the event center, rather than driving and having to park again with limited space availability."*

The SEIR itself, as noted within Table 1 of my original comment letter (provided below) identified several corridors to/from the SoMa neighborhood with substantial trip percentages up to 32% of project traffic.

**Table 1**  
**Project Vehicle Trip Patterns to Major Parking Facilities**  
**North Mission Bay & South SoMa**

Figure	Page	Figure Title	Trip Assignment Along Roadway			
			Seventh St s/o Townsend St	Fourth St s/o Townsend St	King St e/o Third St	from WB I-80 to Fifth St
5.2-14A	5.2-95	Project Vehicle Trip Patterns to Major Parking Facilities - Inbound Weekday PM Peak Hour - No Event and Convention Event	18% / 22%	7% / 7%	5% / 11%	8% / 7%
5.2-14B	5.2-96	Project Vehicle Trip Patterns to Major Parking Facilities - Outbound Weekday PM Peak Hour - No Event and Convention Event	19% / 19%	7% / 12%	5% / 5%	8% / 8%
5.2-14C	5.2-97	Project Vehicle Trip Patterns to Major Parking Facilities - Inbound Saturday Evening Peak Hour - No Event	20%	8%	5%	9%
5.2-14D	5.2-98	Project Vehicle Trip Patterns to Major Parking Facilities - Outbound Saturday Evening Peak Hour - No Event	20%	8%	5%	7%
5.2-14E	5.2-99	Project Vehicle Trip Patterns to Major Parking Facilities - Inbound Weekday and Saturday Peak Hours - Basketball Game Without a SF Giants Evening Game	31% / 32%	13% / 13%	9% / 11%	29% / 30%
5.2-14F	5.2-100	Project Vehicle Trip Patterns to Major Parking Facilities - Outbound Weekday Late Evening Peak Hour - Basketball Game Without a SF Giants Evening Game	31%	13%	11%	20%

Source: "Event Center and Mixed Use Development at Mission Bay Blocks 29-32" DSEIR (June 5, 2015)

It is not reasonable to discount the trips clearly represented by these trip pattern percentages established within the SEIR as irrelevant or unworthy of analysis because they may not be entirely comprised of trips within personal vehicles of those traveling through the SoMa area from the financial district. Even if attendees utilize alternate transportation such as taxis, Uber or Lyft, they will still be new trips added to the roadways which will potentially significantly impact intersections north of the area studied.

The RTC also states:

*"The previously proposed center at Piers 30-32 was located at the intersection of The Embarcadero and*

*Bryant Street, with very different access patterns compared to the proposed project."*

While true, generally the same level of traffic will be generated by both alternatives, and trips originating from the financial district would still be required to travel through the SoMa area. While admittedly traveling along some different arterials through the SoMa district, the previous analysis considered intersections within SoMa whereas the SEIR does not.

Please feel free to give me a call if you have any questions.

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Sincerely,

Larry Wymer & Associates Traffic Engineering



Larry Wymer, CA T.E. 1955





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November 2, 2015

Mr. Tom Lippe  
Law Offices of Thomas N. Lippe, APC  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Responses to Comment on Draft Subsequent Environmental Impact Report for Event Center and Mixed Use Development at Mission Bay Blocks 29-32. SCN:2014112045**

P15003

Dear Mr. Lippe:

Per your request, I have reviewed the Responses to Comment ("the RTC") on the Draft Subsequent Environmental Impact Report (hereinafter "the DSEIR") on the above referenced Project in the City and County of San Francisco (hereinafter "the City"). As I was a commenter on the DSEIR in regard to matters involving transportation and circulation in a letter dated July 26, 2015 which was transmitted as Exhibit 1 to your comment letter of July 27, 2015, my current comments focus on the responses to my own comments, those of yourself and affiliated consultant Larry Wymer. In addition, several others including representatives of BARTD, Caltrans, Caltrain, UCSF and other have filed comments that parallel and reinforce our own. I address the responses to those comments as well.

My qualifications to perform this review were thoroughly documented in my letter of comment on the DSEIR dated July 26, 2015 and are incorporated herein by reference.

My current comments follow. They are organized in the order the City chose to respond to my and others, not in order of comments or order of importance.

### Section 13.11.3, Response TR-2a

This section, in part, replies to our comments now labeled by the City as O-MBA10L4-15 and O-MBA10L4-17.

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### Re MBA10L4-15:

MBA10L4-15 points out that while the DSEIR evaluated the Project's transportation *with* implementation of a Special Events Transit Service Plan in the context of *six* different event scenarios, it only evaluates the Project's transportation impacts *without* the a Special Events Transit Service Plan in the context of *only one* event scenario (without Giants game but with Basketball game). It requests the analysis *without* the a Special Events Transit Service Plan in the context of for *all six* of the event scenarios that were evaluated assuming the Special Events Transit Service Plan was in place.

There are several problems with the City's reply to this comment.

- The reply claims that the scenario of an overlapping evening game at AT&T Park with a Basketball event at the proposed Project without the Special Event Transit Services Plan taking place is a "worst-of-the-worst scenarios" that could only happen about 9 times a year, and then only if Muni were unable to deliver those services. However, with the Project located just a block from the emergency entrances to the UCSF hospitals, "worst-of-the-worst scenarios" are germane considerations for potential impacts on patient access to emergency facilities and the ordinary or special access/egress of emergency service providers.
- Despite the City's assertion that funding of Muni's Special Event Transit Services Plan is guaranteed, this funding is dependent on allocation of General Funds and discretionary transportation funds to this purpose, with such future allocations not guaranteed.
- The response also points to Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring as providing measures that could be implemented in the event Muni's Special Event Transit Services Plan is not implemented. However, many of the potential action measures in M-TR-18 are vague and conditional, and strict monitoring and enforcement is unlikely if the City through Muni has failed to deliver its promised Special Event Transit Services Plan.
- The response, although admitting no quantitative analysis of an overlapping Giants event at AT&T Park with an evening Basketball event at the Project and without implementation of the Muni Special Event Transit Services Plan was prepared, claims that the DSEIR essentially covers this situation for intersections and freeway ramps by having quantitatively analyzed the scenario of an evening Basketball Event with no Giants Event and no Special Event Transit Services Plan (Impacts TR-18 and TR-19) by virtue of having stated that these impacts would be additive to impacts in the "existing conditions without evening Giants event scenario" (Impacts TR-2 and TR-3) or to Impacts TR-11 and TR-12 (existing conditions with a Giants Event at AT&T Park). The problem with this is that the simple statement that the impacts are additive provides the public with no measure of the severity of the combined impacts.

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- The response also notes that Impact TR-20 presents Muni transit impacts for the weekday evening Basketball scenario without an overlapping Giants game or implementation of the Muni Special Event Transit Services Plan and adds text stating as follows: "Impacts to the T Third and 22 Filmore would be in addition to the significant impacts identified for the proposed project with implementation of the Muni Special Event Transit Services Plan in Impact TR-13 for conditions with an overlapping SF Giants evening game." It then concludes, "The revision does not change the analysis or conclusions presented in the SEIR." The problem with this part of the response, like that related to the impacts on intersections and freeway ramps is that the simple statement that the impacts are additive fails to inform the public of the extent of the change in severity of the impacts.
- With regard to failure to consider cumulative scenarios that lack implementation of the Muni Special Event Transit Services Plan, this failure is not remedied by addition of text to the SEIR that specify that cumulative analysis for the Basketball game scenarios include assumption of implementation of the Muni Special Event Transit Services Plan. Since the SETSP is not guaranteed funding in perpetuity and there is no assurance that Muni vehicles and personnel resources will be able to be devoted to this special service in lieu of serving regular transit needs, this change in language does not relieve the deficiency of the SEIR's failure to consider the cumulative scenario in absence of the Muni Special Event Transit Services Plan.

As a consequence of these flaws, Response TR-2a related to MBA10L4-15 is inadequate.

Re MBA10L4-17

Comment O-MBA10L4-17 is part of a stream of comment demonstrating why the DSEIR is inadequate for having unreasonably understated the amount of weekday evening arena event access travel would occur during the evening commute peak hour (see our comment now labeled O-MBA10L4-16 for related discussion). Responding to this apart from the related issues in O-MBA10L4-16 evades the compelling nature of the joint comments that the DSEIR has understated the numbers of weekday evening basketball event attendees actually traveling on the transportation system in the evening commute peak hour (5 to 6 PM).

As to the direct substance of the comment and response, the DSEIR's decision to base the analysis of weekday evening games on a presumed starting time of 7:30 was predicated on experience over 3 seasons when the Warriors were a poor to marginal team and games starting earlier in the evening (at about 6 pm) averaged only 2.5 games per season. The comment documented that based on the 2014/2015 season performance, the combined total of weeknight regular season and playoff games starting at 6 pm (the normal start time for nationally televised weeknight games played on the West Coast) could easily be 16 games per season

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Mr. Tom Lippe  
November 2, 2015  
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over the next several years or beyond. The inadequacies of the SEIR reply are as follows:

- The reply notes that the 2 to 3 preseason and up to 16 postseason games - number variable - (and in actuality, though not admitted in the response, a number of regular season games as well) could have a 6pm weekday start time. It also admits that such games would worsen traffic in the weekday peak commute period from conditions reported in the SEIR (failing to admit also adversely impacting transit and also failing to quantify the increase in severity of impacts on weekday pm commute peak. It claims that these start times are driven by such factors as TV deals, other team's travel schedules and outcomes of postseason series that are beyond the abilities of the Warriors to control - although it is nonsense for the response to imply that those considerations make the Project's significant impacts in the circumstances of these earlier-start events any less significant.
- The response claims that the quality of the team will vary from year to year and claims that this will make the situation of large numbers of national telecasts that might start at 6 pm inconsistent over the time horizon considered in the SEIR. This is a speculation not consistent with precedent. Once a team has achieved an iconic status and national following (as the Warriors have done in the recent season with winning the league championship and the most valuable player award and with the shiny new venue comprised by the Project reinforcing that iconic status), the number of nationally televised weeknight games (6 pm starts) is likely to increase over the next several seasons, and to reoccur despite hiccups in individual seasons (witness the pervasive national attraction to the Lakers and Celtics despite several bad seasons, or, in another sport, Notre Dame football). Moreover, the project arena may be used for other major weekday capacity events such as the NCAA basketball tournament quarter- and semi-finals that would have start times dictated by national TV (that is, 6 pm). Hence, the response's conclusion that "it is unlikely that this scenario [a large number of nationally televised weekday games starting at 6 pm] *would occur on a regular basis during the time horizon addressed by the SEIR*" is non-factual, speculative and inconsistent with the good faith effort to disclose impact that CEQA demands.
- Finally, the response claims that "consistent with common practice in the transportation planning profession, the SEIR includes an analysis of the highest demand with the most frequent conditions for evening events ...". We agree that the 7:30 start time is probably the most frequent weekday evening start time likely to occur. But the SEIR is in error and misleading in proclaiming that it is consistent with common practice in the transportation planning profession to only study the high-demand situation that occurs most frequently. In fact, when a high demand scenario that is not the most frequently occurring but is one that occurs frequently enough to be significantly impactful, it is the common practice in the transportation planning



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profession to study that frequent-enough circumstance as a separate scenario on a CEQA or other analysis. A good example of this is normal transportation planning practice with respect to major regional shopping centers. Studies are performed for an average weekday, and because shopping centers have their highest travel peaks on Saturday, for an average Saturday; these are the most frequently occurring peak conditions. But because shopping center travel has its highest peaks in the Thanksgiving to day-after-New Year holiday season and because the peaks in that approximately 38 day season occur frequently enough to be significantly impactful on their own and pose impacts of different severity than on the average weekday and average Saturday, normal transportation planning practice is to evaluate holiday shopping season weekday and Saturday impacts as separate scenarios. Another example is in the Napa Valley. There, it is the practice to evaluate a project's transportation impacts for the average weekday and average Saturday (which are the most frequently occurring impact situations) and to also evaluate impacts in the "crush" (harvest) season as a separate case as well because those impacts, occurring over a four to six week period are frequent enough and of such severity in comparison to annual averages to warrant consideration as a separate impact case.

- This matter cannot be dismissed as a disagreement among experts. A compelling argument that the SEIR should have evaluated a case scenario for weeknight capacity Basketball games starting at 6 pm is the fact that the SEIR did evaluate a scenario where there are an overlapping capacity Basketball event at the proposed Project and a Giants game at AT&T Park on a weekday evening. The SEIR claims that that type of overlapping event is likely to occur only about 9 times per year. It is obvious that, if a nine times per year occurrence rate is sufficient to require the SEIR to evaluate the Project in the context of that overlapping scenario, then the SEIR should also evaluate the weeknight 6 pm Basketball start scenario which is likely to occur more than 9 times per year in many years of operation.
- The fact that two hospital emergency entrances and the entries for emergency caregivers are located within a block of the Project site make the need for the SEIR to specifically evaluate impacts and mitigation in the 6 pm weekday event start scenario all the more compelling.

Hence, considering all of the above, the SEIR should have evaluated weekday Basketball events starting at 6 pm and is inadequate for not having done so.

**Section 13.11.3, Response TR-2b**

This section purports to respond to our comments now labeled by the City as O-MBA10L4-2, O-MBA10L4-20, O-MBA10L4-39A and those of Caltrans (A-Caltrans-5) and others. These comments concern the SEIR's lack of analysis at intersections

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and freeway ramps that are on obvious approach and/or departure routes to/from and that are obviously or potentially capacity-challenged already.

The response begins by reciting the 6 freeway ramps and their related surface street intersections where analysis was conducted, a point not at issue in the comment. The key point of the comment is the locations the SEIR failed to analyze, not the places it did so. The reply continues, adding that the depth and approach is similar to other studies of completed and ongoing major project studies in San Francisco, and noting that the 1998 Mission Bay FSEIR did not address freeway ramp operations and queuing at all. However, what other studies did or didn't do is immaterial. What is material is what this SEIR should have studied but failed to do, and the response attempts to evade this.

The response continues for two paragraphs describing the configurations and conditions at the I 280 Mariposa off-ramp - one of the locations the SEIR did study. This section, not related to the issue of the ramps and ramp intersections that the SEIR should have but failed to study, concludes by observing that the LOS F conditions on the off ramp in the evening peak hour would be cured by Mitigation Measure M-TR-11c involving stationing a PCO at the ramp terminus intersection and waving traffic turning right to Mariposa eastbound through the traffic signal at the end of the off-ramp. But that conclusion is completely speculative. This commenter was a long term Giants season ticket holder at AT&T Park and this particular off ramp was on my normal route to the Park. The problem there is not that the signal causes queues to back up the ramp and onto the freeway mainline. It is that once a driver reaches the end of the ramp and has a green light, there is often no place to turn to on Mariposa because eastbound traffic is queued all the way back from Third Street. So placing a PCO there will be largely useless.

The response then discusses the I-80 westbound off-ramp to Fifth Street, and concludes that mitigation measure M-TR-2b, vague measures of unquantifiable effect to encourage travel by non-automotive modes would reduce the Project's impacts at this location. Again, this discussion of a location the SEIR did study is irrelevant to the issue that the SEIR should have but failed to study other locations - unless the implicit message is that, had it done so and discovered impacts, it would have just proposed vague, unquantifiable and ineffectual mitigations and declared the impacts mitigated.

Finally, after four lengthy paragraphs of largely irrelevant matter, the reply turns to the subject of the intersections and ramps that should have been studied and were not. The response notes that under CEQA Guidelines § 15130, defining the location or locations for study "*is within the lead agency's reasonable discretion*" and fundamentally claims that in defining what intersections and ramps were analyzed in this SEIR the City has exercised reasonable discretion. However, this assertion is undermined by content in the comments demonstrating that by prior and ongoing



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studies in the general area and by common observation, the City knew or should have known that certain intersections and ramps in the SOMA and Mission Bay area that are on logical access and egress routes to the Project site are capacity challenged and are likely to be adversely impacted by the Project, yet it did not study them in the SEIR. Hence, rather than exercising "*reasonable discretion*" as required by CEQA Guidelines, the City, in failing to study these locations, abused its discretion and failed to undertake the good faith effort to disclose impact demanded by CEQA.

That the City has failed to exercise reasonable discretion in this matter is reinforced by two considerations.

- Two UCSF hospitals are located a block from the Project site. Many of the intersections and ramps on logical access/egress routes to/from the Project that, at the City's discretion, the SEIR failed to analyze are on the advised emergency access routes from various points in the City and region to the hospitals and are posted on the UCSF web site. In excluding these intersections and ramps, the City clearly ignored public safety impacts of that decision.
- The State of California Department of Transportation (Caltrans) has commented on the DSEIR as follows. "Project-related queuing impacts on nearby State facilities should be analyzed" (see comment now labeled in SEIR A-Caltrans-5). Caltrans clearly believes the DSEIR has not assessed impacts on a sufficient number of freeway mainline, ramps and ramp intersections that are likely to be impacted by the Project. Caltrans opinion is due the same deference in this matter as that of the City.

The City's response continues, attempting to explain why individual or groups of intersections and ramps were excluded from study in the DSEIR. For example, the response cites 9 intersections along the Embarcadero and 15 along or east of Fourth Street that we claimed should have been studied. It claims that because the Project is shifted to its current location farther south-west from the originally proposed location on Piers 30-32, the primary routes to and from the Project site from Downtown, SOMA, the northern parts of the City and from the North Bay and the I-80 ramps would be shifted farther west, away from these intersections. But this is not true. Except for the relatively few instances in which there is a concurrent evening Giants game at AT&T park, the routes along the Embarcadero and along and east of Fourth Street remain the most effective and imageable routes to the currently proposed Project site and the parking facilities that serve it from much of the Downtown, SOMA, northern parts of the City, the North Bay and the I-80 ramps to and from the East Bay. Those paths are only likely to be altered on evenings with a concurrent Giants game. And if a massive shift of traffic further west was assumed in the City's thinking as it scoped the current SEIR and excluded the intersections along the Embarcadero and on and east of Fourth on that assumption, why didn't it add more intersections in the Eighth Street corridor (including but not

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limited to the ramps and intersections at Eighth and Harrison, Eighth and Bryant) and other intersections in the Van Ness, Franklin, Gough, Octavia corridors for example? The City has no good answer.

The response also claims that traffic passing through the Embarcadero intersections and the intersections along and east of Fourth would be less significant because a survey of baseball attendees at AT&T park *suggested* that many attendees who worked Downtown or in SOMA and drove to work left their cars at their commute parking locations and walked, used transit or took cabs to and from the ballpark. This type of data is of course irrelevant because those considerations should have already been taken into account in the SEIR's assumptions about mode split to the park from those districts. Moreover, this type behavior is likely to become increasingly uncommon as surface parking in those districts disappears and is replaced by parking garages that tend to close earlier than parkers could travel back to them at the conclusion of ballpark or arena events.

The response also cites new study of a single intersection, that of Eighth and Bryant as exemplar of why additional study intersections are not justified. This intersection is an anomalously complex intersection, and the effects of its complexities on traffic operations are difficult to replicate in theoretical delay/level of service calculations. Part of the complexity is that Eighth Street, which is one-way southbound north of Brannan becomes two-way south of Brannan. The complexity is compounded because columns that support I-80 as it crosses above Eighth between Bryant and Brannan are located in the center of Eighth Street and force southbound drivers that want to turn left at Brannan or go through or right there to pick the correct lane before departing the heavily congested intersection of Eighth and Bryant. Moreover, from this point of choice, drivers' views of what choices they must make before moving along Eighth toward Brannan are obscured by the columns and I-80 structure. In general, calculations of LOS at one location are poor predictors of delay/LOS conditions somewhere else. Moreover, in this case, the unique geometrics of the subject intersection and their unusual effects on driver behavior make the outcome of theoretical delay/LOS calculations anomalous rather than exemplar of anything elsewhere.

The City's response is clearly grasping straws to avoid analyzing the full array of intersections and ramps that, in a good faith effort to disclose impact, the SEIR should have evaluated. The City's response to the subject comment set is inadequate, and in continuing to evade analysis of potentially adversely affected freeway segments, intersections and ramps, the SEIR is defective and unsuited for certification.



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### Section 13.11.3, Response TR-2c

Response TR-2c replies to our comments O-MBA10L4-21 and -22, and those of others that the DSEIR understates transit and traffic impacts because it is based on outdated traffic and transit data unrepresentative of existing conditions at the time of filing the Notice of Preparation (NOP) for the SEIR.

The initial point in the response in Response TR-2c is to deny that the baseline data relied upon in the DSEIR was stale, and to claim that the City and its consultants took steps to assure that they relied upon data as up-to-date as feasible. This assertion is factually untrue.

Here we briefly review the facts of the situation, first with regard to transit data.

- The NOP for the Project was circulated on November 19, 2014.
- The data document relied on in the DSEIR transit impact analysis for Muni operations in the City states that this data was collected in the fall of 2010 and at some time in 2011.
- The data relied upon for services in the regional transit corridors serving the City was drawn from a SFMTA TEP project published in October 2012. Obviously, the regional transit corridor data published in that study reflects observations some time before October, 2012.
- Since those times of data collection, there have been a large number of development projects completed and occupied in the C-3, SOMA and Mission Bay and yet others were approved and under construction. In addition, the recovering economy has added considerable numbers of riders to the local and regional transit systems.

Clearly the transit data relied upon in the DSEIR was stale at the time the analysis was performed and this should have been obvious to the City and its consultants. Moreover, contrary to the claim in Response TR-2c that the City and its consultants took steps to assure that they relied upon data as up-to-date as feasible, new information released as part of Response TR-2c makes obvious that this is not the case.

- Several weeks before the DSEIR was circulated, the City issued updated summarizations of Muni patronage data and regional transit service data.
- Several weeks before the DSEIR was circulated, the City had BART patronage data that was very current – actually through April, 2015.

Yet the City did not update the transit analysis in light of this data before circulating the DSEIR or even acknowledge the existence of newer data in any way in that document. This is improper.

Response TR-26 does not present in full the new transit data set, the San Francisco Planning Department Memorandum *Transit Data for Transportation Impact Studies* dated May 15, 2015. Instead it presents a composite table compiled from the

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information in the cited memorandum (Table 5.2-43) sourced to Advant Consulting/Fehr & Peers/LCW Consulting and dated 2015. This composite table omits key data from the actual May 15, 2015 San Francisco Planning Department Memorandum (a copy of which is appended hereto as Exhibit 1) that indicate the data reflected therein were collected in 2013 for Muni operations and in 2012 for regional transit operations. This raises two key issues:

- Although the revised analysis presented in Response TR-2c is based on newer data, that data is also stale.
- In omitting, in the summary table published in Response TR-2c, the notations indicating the dates on which the newer data was collected, the response either deliberately or inadvertently misleads the public to believe the analysis in the response is based on current 2015 data, which it is not.

Although Response TR-2c mentions having BART's April, 2015 ridership data and claims to have relied on it, there is no evidence in the response of how and where the SEIR made use of it in any way. Although the City has placed the raw BART of April ridership data, ascribed to a May 1, 2015 submission by Val Menotti, Bart Chief Planning & Development Officer, on the SEIR web site, the transmittal narrative is not presented nor is its translation into the regional screenline format relied on in the SEIR. We hereby demand that the conversion of the subject BART ridership data release be provided to the Mission Bay Alliance and its consultants in the format of the regional screenline analysis of the SEIR and that the period of comment be extended beyond the date of its provision to allow adequate time for review and comment on its implications. We also note that BART's own letter of comment on the DSEIR (now Comment A-BART) in its second paragraph of comment (a paragraph the SEIR ignores rather than enumerating for response (see SEIR page COM-19) notes as follows: *"Given strong job expansion in San Francisco, BART has experienced unprecedented ridership growth (~25% over the last four years) which creates a number of peak period capacity challenges."* This statement clearly demonstrates that any reliance on regional transit data as old as 2012 (which the SEIR continues to rely on) is an inaccurate portrayal of the background conditions on which the Project imposes impacts. Response TR-2c claims to have used the April, 2015 BART data

Response TR-2c presents a reassessment of impacts on the 22 – Fillmore and the T-Third lines based on the purportedly 'new' baseline data set and finds that deficiencies on these lines are not Project impacts because the Project's contribution to ridership does not exceed 5 percent of total ridership at the maximum load points. However, this finding of lacking a ridership contribution in excess of 5 percent at the maximum load point comes about only because of the failure to consider the scenario of weekday Basketball event starts at 6 pm and the SEIR's illogical refusal to consider that there is an offset between the time attendees pass through the arena turnstiles and the time those attendees are traveling on and impacting the transportation system (see our comments O-MBA10L4-17, O-MBA10L4-7, O-

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MBA10L4-16 and our comments herein with respect to Response to Comments TR-2a and TR-2d. Had either or both the 6 pm game start scenario and the proper offset between arena turnstile passage time and time traveling on the transportation system been considered, there would be much more Project travel on the subject lines during the pm peak commute hour (5-6 pm) than is considered in the SEIR and significant impacts on these lines would be disclosed.

Response TR-2c claims that use of the updated transit data does not result in any changes to impact determination for Muni transit presented in Impact TR-4. This conclusion is incorrect and misleading because the analysis was not performed on *adequately updated* (still stale) transit ridership data and because it was performed without considering reasonable Project contributions to evening commute peak hour transit ridership (because of failure to consider a 6 pm game start scenario and failure to consider the offset between time riding transit and time passing through arena turnstiles for the 7:30 game start scenario).

Response TR-2c also opines that, since ridership figures for the 22 Fillmore and T Third routes were obtained from SFMTA and reflect City's plans for changing the 22-Fillmore and completing the Central Subway by year 2020, the SEIR analysis for these lines accounts for development that occurred and is probable to occur through 2020. However, we note that the planning studies for those transit service changes on those lines were performed several years ago and the SEIR presents no clear evidence whether or not the SFMTA projections for those transit projects reasonably reflects the development boom that has occurred in the C-3, SOMA and Mission Bay in the intervening years and whether or not job infill in existing development due to a revitalized economy was reflected.

A final section of Response TR-2c attempts legalistic evasion of the issue of stale existing conditions data. This section starts by stating: "*Overall the transit impact analysis presents a reasonable representation of transit conditions based on available data for the Muni and regional transit providers and additional analysis is not required. Nor have commenters identified any flaws in the analysis that built upon the transit impact analysis.*" This statement is contrary to fact. Four year old data collected at a time when the job and development economy was just starting to begin recovering from a period of stagnation and decline is clearly not representative of conditions after four subsequent years of aggressive development and job boom. And for our part, in our comment letter of July 26, 2015 comprises 27 pages identifying flaws in the analysis that are compounded by the flawed and outdated transit data base assumed as "existing" conditions in the DSEIR. The response goes on to state: "*Although a somewhat different, and yet technically plausible, approach might have been possible, the City's approach is abundantly supported by substantial evidence and represents a reasonable exercise of technical judgment. In general, a lead agency's determination regarding how 'existing physical conditions without the project' could 'most reasonable be measured' is 'quintessentially a*

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*discretionary determination*". This statement misrepresents the issue in order to bend the framing of it to fit legal case precedents which are then cited in the response. However, this is absolutely not a technical disagreement about how to go about collecting or reasonably measuring existing transit conditions data. The issue is that the old transit data the City had on hand is simply not representative of the transit conditions that existed in late November, 2014 when the NOP was circulated.

With regard to the issue of stale traffic data (Comment O-MBAL4-21), Response TR-2c reiterates that the DSEIR adjusted the original counts to account for the opening of the UCSF Medical Center Phase 1 and the Public Safety Building that were nearing completion after the traffic counts were taken. This adjustment for those buildings was acknowledged in our comment O-MBAL4-21 and is not a matter of question. Response TR-2c goes on to state that subsequent traffic counts taken at three intersections in April 2015 confirm that the adjustments to the earlier traffic counts reasonably reflect the added traffic associated with the newly opened facilities cited above. This point is also not challenged in our comment, at least with respect to the three particular intersections counted. However, Response TR-2c then concludes: "*Because the adjusted volumes used in the analysis were similar to or higher than those collected in the field in April 2015, it can reasonably be inferred* [emphasis added] *that the traffic volumes used in the existing and existing plus project analyses also adequately reflect any changes that may be associated with newly completed projects further afield (e.g., in SoMa).*" The idea that this conclusion can reasonably be inferred is utter nonsense. The DSEIR made no attempt to quantify what projects in northern Mission Bay, SOMA and the C-3 were completed after 2013 or nearing completion by early 2015, how much traffic they would generate and where most of that traffic would go and what study intersections it would affect. The intersections that were counted in April 2015 (Third with Sixteenth, Fourth with Sixteenth and Fourth with Mariposa) are indeed "*far afield*", being well to the southeast from new developments in northern Mission Bay, the SOMA and C-3 and are unlikely to be affected much by developments in those areas<sup>1</sup>. But other intersections in the Project's scope of study are much closer to those development areas and are likely to be considerably more affected by traffic generated by the uncounted developments there as well as increased traffic to/from those areas due to job growth within existing uses due to the improved economy. The April 2015 counts do nothing more than show the SEIR traffic adjustments for UCSF Medical Center Phase 1 and for the Public Safety Building came reasonably close to getting it right for those particular facilities and those particular intersections. They carry no inference for other new development and for other study intersections farther afield.

<sup>1</sup> This is because traffic from northern Mission Bay, the SOMA and C-3 would likely take other routes journeying to and from the southeast that would not pass through the 3 intersections counted in April 2015.



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Because of these considerations, Response TR-2c is inadequate and the comment that the SEIR traffic baseline is stale remains unrefuted.

### Section 13.11.3, Response TR-2d

Response TR-2d concerns our comments now O-MBA10L4-7, O-MBA10L4-7, Caltrans (A-Caltrans-1) and others.

Our comments concern the fact that the DSEIR relies on turnstile data<sup>2</sup> on time of arrival at the Golden State Warriors current venue site (Oracle Arena) and other basketball venues to estimate how many attendees traveling to a game with a 7:30 PM start time would be traveling on the area transportation system in the 4 to 6 PM peak commute period versus in the 6 to 8 PM early evening peak shoulder period without considering the reasonable offsets between the time attendees enter the "paid" areas of the arena and the time when they were actually traveling on the transportation system.

Response TR-2d begins by stating as follows: *"For reasons explained below, the City disagrees with those comments and stands by its analysis, which reflects a number of evidence-backed, conservative assumptions. While some of the points raised in the comments seem intuitively believable, actual data from comparable situations show that the comments have exaggerated the likely numbers of people would arrive [sic] before 6 pm for a 7:30 pm event."*

Let us parse this introductory section of the response before moving to the further details.

Re: *"points raised in the comments seem intuitively believable"*,

- It is undeniable fact that attendees occupy capacity on the transportation for a period of time that depends on the length of their journey and mode and that the period they occupy capacity on the transportation system occurs before the time they pass through the arena turnstiles.
- It is undeniable fact that even for attendees who go directly through the turnstiles into the paid section of the arena at the end of their trip to the site, there is a time offset between the time when they stop occupying capacity on the transportation system - when they debark onto the T Third platform, or the 22 Fillmore stop or find a parking place nearby or perhaps even start walking from BART, Caltrain or the other Muni-Metro lines - and the time they pass through the turnstiles.
- It is fact that some attendees wait outside the venue, perhaps to meet up with companions traveling separately (possibly to hand them their tickets, just soak in the atmosphere of the crowd arriving or for other reasons). So the

<sup>2</sup> The time attendees actually enter the "paid" areas of the arena.

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time these attendees occupy capacity on the transportation system is even more offset than those who enter the arena directly.

- It is fact that some choose to have drinks or meals at restaurants and bars outside the venue before entering the arena and that the offset between when these attendees occupy capacity on the transportation system and the time they pass through the arena turnstiles is even greater yet.

These considerations are not just *"intuitively believable"*; they are undeniable fact and the SEIR's analysis has failed to take them into account.

Re: *"the comments have exaggerated the likely numbers of people would arrive [sic] before 6 pm for a 7:30 pm event."*

The fact that time of arena event attendees' time on the transportation system is offset from the time they pass through the arena turnstiles for the reasons stated above is not a newly-discovered concept or theory; it is a fact the City and its consultants knew or should have known. It is the City's responsibility to have reasonably considered the offset factors in the SEIR and, based on that, reasonably estimated the number of arena attendees who would be impacting the transportation system during the evening commute peak hour in the case of a weekday evening arena event starting at 7:30 pm. We have made a reasoned effort to estimate how many attendee's travel to such an evening event would be offset into the evening commute peak hour. The City and its consultants have made absolutely no attempt to consider the offset factors in estimating impacts of travelers to a 7:30 pm arena event start on the transportation system in the evening commute peak hour. Hence, the City is in no position to opine that our reasonable estimate based on those offset factors is *"exaggerated"* since it didn't try to make such an estimate at all.

Re: *"the City disagrees with those comments and stands by its analysis..."*

This is an attempt to transform what is a matter of fact into a disagreement among experts in the hope that courts will grant deference to the City's opinion in the matter. However, since this is a clear matter of fact, the response is inadequate and the City has refused to make the good faith effort to disclose impact that CEQA demands.

Here we consider of details of Response TR-2d.

Response TR-2d in the last paragraph of Volume 4, page 13.11-41 states:

"As shown in the table on SEIR p. TR-37 of Volume 3 of the SEIR, multiple basketball

venues from various sources were evaluated to derive the arrival patterns at the



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proposed project arena. Of these, two locations (Oracle Arena in Oakland and Barclays Center in Brooklyn) separately reported arrivals occurring more than one and a half hour prior to the start of a basketball game. The remaining facilities reported all arrivals occurring more than one hour before the start of a game, most likely because those occurring more than one and a half hour prior to the game represent a small fraction of the total attendance. The average percentage of arrivals occurring between 5:00 and 6:00 p.m. for those instances where arrivals occurring more than one and a half hour prior to the start of a basketball game (i.e., between 5:00 and 6:00 p.m. for a typical game starting at 7:30 p.m.) is less than 2.5 percent. Thus, to account for potential daily variability in arrival patterns, as well as the additional time it may take for attendees to enter to the event center after their arrival at the site or nearby vicinity, the SEIR conservatively assumed that more than twice as many attendees as the average (i.e., 5 percent) would arrive between 5:00 and 6:00 p.m."

This section of the response is misleading in several respects. Although Volume 3, page TR 37 presents 7 data sets obtained for 6 NBA basketball venues, examination reveals all of the data is turnstile entry data and only 3 of the data sets for 2 venues provided useful data measuring turnstile arrival times earlier more than 1.5 hours before game start time (which would definitely put travel by those attendees into the 5 to 6 pm evening commute peak period). One of those is for the Warriors at their current venue, Oracle Arena, and shows only 1 % of attendees arriving more than 1.5 hours before game start time. The other two are for the first two years of operations of the Barclays Center in Brooklyn which respectively showed 2.0 and 4.1 percent of attendees arriving more than 1.5 hours before the start of an evening basketball game.

Let us put this data in perspective. The Oakland-Alameda Coliseum complex on which the Oracle Arena sits has a total of almost 10,000 parking spaces, more than enough spaces to accommodate the entire Arena capacity attendance if attendees arrived at two persons per car occupancy. This facility is noted for tailgating before basketball games as well as before other events. In addition, persons arriving at the complex by BART can readily be observed joining friends who drove and parked at their tailgates. Because of this, the observed 1 percent of attendees turnstile count for Oracle is probably under-representative of the numbers of attendees who actually arrive on the premises more than 1.5 hours before game start by a factor of 25- to 30-fold or so.<sup>3</sup>

The other data sets from Brooklyn show turnstile counts at the Barclays Center more than 1.5 hours before game start at 2 percent in the initial year and 4.1 percent in the second year of operation. These percentages likely reflect in part attendees unfamiliar with a new venue and adapting their pregame behavior as they become more knowledgeable. But neither of the two years turnstile data provides any

<sup>3</sup> We note that it would not have been difficult or costly for the City, its consultants or the Project sponsor to have taken aerial photos of parking at the complex 1.5 hours before game start and again some time after game start, counted the cars in each, and used the relative numbers as a reasonable surrogate measure of what percentage of attendees arrive 1.5 hours before event start.

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indication of how many of the attendees actually arrived in the vicinity of the Barclays Center more than 1.5 hours before event start (hence actually traveling on the transportation system in the pm commute peak period).

The SEIR takes these three data sets, averages them, finds them to be less than 2.5 percent of total attendees, doubles that to 5 percent and assumes that becomes a "*conservative*" estimate covering all the considerations why attendees might have arrived in the Project area 1.5 hours or more before event start (hence been traveling on the transportation system in the pm peak commute hour.). The problem with this is, there is nothing that connects the turnstile percentage of attendees entering the arena more than 1.5 hours before event start to the percentage who arrive near the venue site 1.5 hours before or indicates that double that turnstile count is a "*conservative*" estimate of that latter item. The claimed "*evidence backed, conservative assumptions*" the City claims to have made in this matter has no direct quantified or quantifiable relationship to the "*evidence*" the SEIR cites. The City, its consultants or the Project sponsor could easily have easily and inexpensively measured attendee arrivals to the Warriors current venue environs (the Oakland Alameda Coliseum property) via motor vehicle and BART, but they failed to do so. By 'deeming this unnecessary' as it does on page 13.11-42, Response TR-2d expresses preference for the SEIR's own unsubstantiated guess as to how many attendees of a 7:30 pm start basketball event are actually traveling on the transportation in the pre-6 pm evening commute peak hour rather than having reliably measured data. And that guess is highly favorable to the Project since the low number of travelers in it minimize the chance of Project impacts on the transportation system being disclosed for the pm commute peak hour. The response is inadequate and inconsistent with the good faith effort to disclose impact that CEQA demands.

### Section 13.11.3, Response TR-2f

Response TR-2f replies to our comments O-MBA10L4-3, O-MBA10L4-4, O-MBA10L4-23, O-MBA10L4-24, and O-MBA10L4-27. The first and fourth of these comments relate to the SEIR's failure to define the severity of the Project's traffic impacts. The second and third of these comments relate to failure to evaluate impacts at intersections under PCO control and the fifth relates to the SEIR's failure to account for the effects of train passage in the analysis of the intersection of Sixteenth, Seventh and Mississippi. Both of these latter matters also ultimately go to the issue of failure to define severity of impacts.

With regard to the failure to address changes in severity to impacts at locations already operating under conditions qualifying as impacted, the first three paragraphs of the response are padding, reciting definitions of LOS that are not in dispute in the comments. The next three paragraphs of the response on page are legalistic arguments about whether CEQA requires disclosure of distinctions in severity to



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impacts where conditions are already in a state considered impacted. Without engaging in the argument of legal matters, we can state that from an engineering perspective, distinctions in severity of impacts represented by changes in delay in the LOS/delay computations are highly significant. If the computations at a ramp or intersection already at LOS F show changes of a couple seconds of delay or so, this is hardly perceptible to drivers and is not indicative of meaningful change in severity of impact. But if the computations show changes of, for example, a half-minute or a minute or more, this is indicative of a dramatic change in severity that is highly perceptible and involves potential for queue blockages of additional lanes or upstream locations. Since the calculation procedures are capable of generating these estimates of delay and distinction of severity, this information should not be suppressed and ignored – doing so appears to be inconsistent with the good faith effort to disclose impact that CEQA demands.

The response goes on for four more paragraphs discussing the evolution of LOS computation techniques, the City's practices in use of them, and the technical meaningfulness of them. The single point in these paragraphs worthy of consideration can be summarized as follows: Calculation procedures to determine delay have been validated for instances where the subject location is below or slightly above capacity; in circumstances where capacity is greatly exceeded the validation is less strong and therefore the delay predictions are less reliable. We acknowledge this. But it is still clear if, say, an intersection or ramp is a couple seconds over the LOS F threshold in the existing condition and addition of project traffic computes to add a half minute or minute or more of delay, those are significant changes in severity. This is regardless of the fact, because of the lower reliability of the delay calculation in the LOS F zone, that if the traffic were actually added in the field and the changes in delay were measured, the results might be 27 seconds added instead of a half-minute or 55 seconds added instead of a minute.

Response TR-2f continues for another page-and-a-half of irrelevant speculation that in the future, consideration of LOS/delay may be excluded from CEQA consideration. For the present, LOS is a CEQA consideration, the City has relied on it and that portion of the response can safely be dismissed.

Response TR-2f continues, replying to the issues in O-MBA10L4-4, O-MBA10L4-23, concerning failure to evaluate LOA/delay impacts at intersections under PCO control. This comment concerns specific tables in DSEIR Volume 1 that are explicitly identified in the comments, Tables 5.2-47 and 5.2-48, respectively located on pages 5.2-172 and 5.2-174. These tables have no entries for LOS or delay at certain intersections, with the normal space for delay and LOS entries in those tables filled with the notation "PCO Controlled". The response points to completely different tables, Tables 5.2-34, 5.2-35 and 5.2-36 as having delay and LOS entries for those intersection locations. This response evades the following questions:

- What is LOS and delay at the times these intersections are PCO controlled?

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- Does the SEIR conclude that PCO control mitigates significant impacts at these locations or do they remain significantly and unavoidably impacted?  
The response is inadequate.

The final portion of Response TR-2f concerns the apparent lack considering the effect of Caltrain train movements on delay and LOS at the intersection of Seventh, Sixteenth and Mississippi. The response confirms that the SEIR analysis did not attempt to analyze the effect of Caltrain train movements on the LOS/delay compiled for the intersection of Seventh-Sixteenth and Mississippi. It points out that the SEIR analysis shows that with the reductions in general traffic lanes associated with the 22 Fillmore Transit Priority project, together with Project traffic, with or without overlapping Giants games, this location would be at LOS F. It then claims that, because the computation of delay is less reliable when LOS F conditions are already evident, there would be no point to attempting to further quantify the situation with respect to the effects on the subject intersection by Caltrain movements on the immediately adjacent grade crossing of Sixteenth. This absurd response ignores and attempts to evade the key point of the comment which is that had Caltrain movements been considered, there is a good prospect the analysis might have shown that traffic on Sixteenth would queue to an extent that might obstruct the intersections of Sixteenth with Owens, Sixteenth with Fourth, and even Sixteenth with Third. Since these locations are on a critical emergency and regular access route to the UCSF hospitals it is imperative that such an analysis be done (a good case for micro-simulation) and the SEIR is critically deficient for having failed to perform it.

### Section 13.11.3, Response TR-2g

This response replies to our comments O-MBA10L4-3-13a and O-MBA10L4-18 which concerns the criteria the City uses to define impacts on transit.

To our comment that the ordinary transit impact criterion, ridership in excess of 85 percent of screenline capacity based on scheduled service, or by scheduled line service where an individual line evaluation is ordered, is unreasonable and unrealistic. Our reasoning is based on the fact that Muni rarely, if ever actually delivers the effective capacity of full scheduled service due to missed runs, bunching and skip-stopping and other issues related to lack of schedule reliability or on-time performance. The response describes how passengers are counted, but this clearly does not include those left standing at bus stops and LRT platforms. It also claims that the procedure takes into account the schedule reliability and on-time performance issues, but demonstrates no clear way that this is true. It also fails to address the issue that, when only a screenline analysis is performed, this assumes the excess capacity on one line is available to serve the excess ridership on another, while in reality, most people's travel patterns are well served by only a single line.



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The response then moves to a key issue, that the City has relaxed the normal threshold of impact from 85 percent to 100 percent of capacity for this particular Project. One of our criticisms is that relaxation of the normal threshold of significant impact for one favored project is inconsistent with the good faith effort to disclose impact that CEQA demands. The response's reply to this is that San Francisco already did the same for the 34<sup>th</sup> America's Cup competition event and New York City does it all the time for large special events. But the America's Cup competition is/was fundamentally different from the proposed Project in that it involved large-attendance spectator event competition occurring over just a few days in a single year; the Project involves events on over 200 days per year repeated over many, many years. Moreover, the fact that nobody noticed that the City changed the rules for that specific event does not make it right then and does not justify making a special change of the impact criteria for this Project or for any project. As regards to what New York City does for transit impact criterion with respect to large special events there, that is irrelevant to San Francisco.

A key issue identified in the comments is that while event-attendees may tolerate 100 percent-of-capacity crush loads (a justification the DSEIR used for the relaxed impact criterion), the problem is that this imposes a special misery on the people who are normal users of the affected lines at the times. Response TR-2g fails to address this relevant point. Furthermore, the issue of who the regular riders who are adversely impacted when special event attendees overcrowd and slow the operation of the affected transit lines has Social Justice implications. We explore this topic, which the SEIR fails to address, below.

Other commenters provide evidence that the community south of the Project site served by the T Third line is a disadvantaged community that is adversely impacted by the effects of transit services to the Project that create social justice issues unaddressed in the SEIR. Here we discuss transit operations considerations that lend support to the assertion that the SEIR has failed to address social justice issues.

- Regular users of the T Third will suffer unpleasant overcrowding due to event-goers in the pre-event and post-event periods, having to deal with scarcity of seating and uncomfortable sharing of standing space with boisterous pre-event goers and over-exuberant or angrily depressed (and often liquor-fueled) departing event goers.
- The City's decision to reduce the threshold of significant impact from the normal 85 percent of capacity to 100 percent of capacity exacerbates the overcrowding impacts on the regular user community.
- Special T Third shuttle services to the Project site that turn back near the intersection of Sixteenth and Third occupy time slots that could be filled by runs that serve the community to the south in this corridor.

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- Heavy boardings and alightings associated with event arrival and departure travel increase station dwell times, slowing service to normal users south of the Project site. Delays associated with shuttle operation turn-backs do the same. Also, turn-backs tend to create big gaps in service south of the Project site, as is reportedly already evidenced as the result of Giants games.
- Reconstruction of the T Third station platform near the intersection of Third with Sixteenth to accommodate Project crowds, a reconstruction that will require over a year, will inevitably delay T Third services to the disadvantaged community to the south over the duration of the construction period. At times this may even require substitution of inferior bus services.

All of these constitute transit operational reasons why the SEIR should have included a Social Justice Impact section that has not been provided.

### Section 13.11.3, Response TR-2h

This response replies to our comments O-MBA5-6, O-MBA10L4-9, O-MBA10L4-10, O-MBA10L4-11, O-MBA10L4-12, O-MBA10L4-26 and O-MBA10L4-36 and those of others. The points of these comments are summarized as follows:

- The cumulative analysis, pegged to Year 2040, 25 years from now, is purely speculative.
- While a speculative look at conditions 25 years hence is not objectionable, overlooking a cumulative scenario 10 years hence misses the most active concerns of the current residents of San Francisco and the region, hence the SEIR is defective as an information document.
- Absent inclusion of a shorter time-frame cumulative analysis, the long-term cumulative analysis deludes the public as to the nearer-term cumulative consequences of the Project.
- Given the rapid pace of development approvals including frequent planning and zoning variances, a 25 year forward cumulative analysis based on General Plan development quantifications is irrelevant.
- The transportation planning forecast tool used to prepare the travel forecasts for the 2040 cumulative analysis has a greater validation error (by a factor of 2) than the threshold of Project cumulative impact.
- The City is actively planning massive changes to the transportation network that would substantially alter (seemingly to the Project's detriment and to make it more impactful) transportation conditions in the immediate Project vicinity and that are as reasonably foreseeable as the plan development totals relied on in the 2040 analysis. The SEIR has failed to assess these transportation network changes.
- The SEIR uses an improper baseline for assessing cumulative transportation impacts. It assesses the Project's impacts relative to 2040 conditions that are assumed to exist without the Project. Per CEQA, it should evaluate the Project's impacts, in combination with those of other present and



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reasonably foreseeable future projects on the existing environment. The essential difference is that what the SEIR has done is to compare a projection to a projection. CEQA requires comparison of a joint projection to a known (the existing condition). These are different things.

Response TR-2h begins with a laborious 4-page description of the City's ordinary practices in cumulative analysis and of the SF-CHAMP transportation model. The discussion fails to address any of the issues in the comments and, in particular, the SF-CHAMP model's calibration error being double the threshold of impacts that it is being relied upon to disclose.

Response TR-2h continues in an attempt to justify the distant year cumulative analysis as follows:

The 2040 cumulative horizon year is preferable to shorter period because the 25 - year horizon year more accurately accounts for land use changes and their associated transportation network changes, as well as other planned transportation improvements. Future growth occurs according to the vagaries of variable economic conditions, development trends, changing sponsor development priorities, and legal actions that delay or curtail proposed development, and therefore, short - term land use growth patterns cannot be accurately predicted in five - year increments. In particular, redevelopment projects such as those included in the 2040 growth forecasts (e.g., Mission Bay Plan, Candlestick Point - Hunters Point Shipyard Plan, redevelopment of Pier 70 and Seawall Lot 337), often take longer than anticipated to be completed. For example, the Mission Bay Plan was anticipated to be substantially built - out by 2015, which is the cumulative analysis year for transportation conditions in the Mission Bay FSEIR; however, construction of development is still underway and the UCSF Mission Bay campus is anticipated to be completed by 2019. Nearby, the Candlestick Point - Hunters Point Shipyard Phase II Development Plan identified completion of about 3,100 residential units by 2017; however, only about 240 of the 3,100 residential units are anticipated to be completed by the end of 2015. Construction of development part of the Pier 70 project is anticipated to continue through 2030. Thus, because larger multi - year development proposals would be built over a number of years, a future cumulative analysis year considers completion of buildout of these projects. Therefore, the cumulative impact analysis presented on SEIR pp. 5.2 - 208 - 5.2 - 232 (i.e., Impact C - TR - 1 though Impact C - TR - 10) adequately reflects the proposed project's impacts in combination with other past, present, and reasonably foreseeable future projects, and a different or additional cumulative analysis year is not warranted.

This response begs the question: If all this is true, why didn't the City use a 50, 60 or 100 year period for the cumulative analysis. The response, although seemingly filled with factual information, is nonsense relative to the issues.

Also, nothing in the response addresses the final bulleted point above or its elaboration in the original comments. CEQA requires evaluation of the

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cumulative condition, including the Project in combination with other foreseeable in comparison to the existing environment, not a comparison of two hypothetical future conditions.

### Section 13.11.6 – Response TR-5

This response relates to comments by BART (Comments A-BART-1, -4, -5, -7, -8, and -9) and ourselves (O-MBA10L4-19) supplying a station-level analysis of impacts on BART that was critically missing in the DSEIR. This station-level analysis provides completely new information, including Table 13.11-2, and conclusions that were previously missing. Consequently, the information should be available for review for the full 45 day review period in Recirculated Draft status under CEQA.

### Section 13.11.6 – Response TR-8

This response replies to our comment O-MBA10L4-28 concerning truck loading. The response indicates that new (un-numbered and untitled) figures showing truck turning templates for each loading are presented with the response. It is not evident if and where the said figures are actually provided. Hence, the response is inadequate.

### Section 13.11.6 – Response TR-9

This reply responds to our comment and those of others regarding access impacts to emergency vehicles attempting to reach UCSF hospitals located in the immediate vicinity of the Project. The response consists of a repetition and elaboration of the description of the ineffectual measures that prompted the comment rather than proposing clear mitigation to resolve the issues. We note that the critical traffic LOS deficiency at the intersection of Seventh, Sixteenth and Mississippi, which is on advertised emergency routes to the UCSF hospitals is unmitigated and that the SEIR analysis at this location has failed to consider the effects of train crossings of Sixteenth Street, which could cause traffic on Sixteenth to queue into the intersections of Sixteenth with Owens and Sixteenth with Fourth, which are intersections crucial to hospital access, both emergency and normal. The response is inadequate.

### Section 13.11.6 – Response TR-10

This response, which concerns construction impacts, is merely a reprise of the inadequate information and findings in the DSEIR that prompted our and several other comments. Of particular concern is the failure to address construction impacts associated with the reconstruction of the LRT station by the Project site on Third

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Street, a reconstruction which poses impacts for ordinary traffic on Third Street, emergency vehicle traffic on Third Street and for operations of the T Third Muni LRT line itself, which may impose social justice transportation impacts on the disadvantaged communities located further south in the T Third LRT corridor. These social justice impacts in specific have not been addressed.

#### Conclusion

Due to all of the foregoing and other issues not yet addressed in these comments, the SEIR transportation and circulation section is inadequate and unsuited for certification.

Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.



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July 27, 2015

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c/o Mr. Brett Bollinger  
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Re: **Transportation Impacts** - Comments on Draft Subsequent Environmental Impact Report for the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (Warriors Arena Project); San Francisco Planning Department Case No. 2014.1441E; State Clearinghouse No. 2014112045

Dear Ms Bohee and Mr. Bollinger:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project"). The Mission Bay Alliance objects to approval of this Project and certification of this EIR for the reasons stated in this letter.

This letter incorporates by reference, as comments on the DSEIR, all of the comments on the DSEIR contained in the July 23, 2015, letter report authored by traffic engineer Dan Smith (attached as Exhibit 1), and the July 21, 2015, letter report authored by traffic engineer Larry Wymer (attached as Exhibit 2).

#### I. THE DSEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO TRANSPORTATION IMPACTS.

##### A. The DSEIR Fails to Assess the Project Traffic Impacts on the Entire Affected Environment.

The DSEIR studies Project-induced increases in congestion and delay, for both incremental and cumulative impacts, at twenty-two (22) intersections and six (6) freeway ramps, as shown in Table 1.



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Table 1

Incremental Impact Assessment (With Implementation of the Special Events Transit Service Plan)	Incremental Impact Assessment (Without Implementation of the Special Events Transit Service Plan)	Cumulative Impact Assessment
Intersections at DSEIR, p. 5.2-18, Table 5.2-34 p. 5.2-121, Table 5.2-35 p. 5.2-123, Table 5.2-36 p. 5.2-172, Table 5.2-47 p. 5.2-174, Table 5.2-48	Intersections at DSEIR, p. 5.2-192, Table 5.2-53 p. 5.2-193, Table 5.2-54	Intersections at DSEIR, p. 5.2-214, Table 5.2-59 p. 5.2-217, Table 5.2-60.
Freeway ramps at DSEIR, p. 5.2-133, Table 5.2-37 p. 5.2-133, Table 5.2-38 p. 5.2-134, Table 5.2-39 p. 5.2-181, Table 5.2-49 p. 5.2-181, Table 5.2-50	Freeway ramps at DSEIR, p. 5.2-198, Table 5.2-55 p. 5.2-198, Table 5.2-66	Freeway ramps at DSEIR, p. 5.2-221, Table 5.2-61 p. 5.2-221, Table 5.2-62

Remarkably, the DSEIR fails to disclose the criteria the City used to select these intersections and freeway ramps. More importantly, the DSEIR fails to disclose the criteria the City used to *exclude* other intersections and freeway ramps. The omission of this fundamentally important information renders the DSEIR so legally inadequate as an informational document that it frustrates CEQA's goal of providing the public with a meaningful opportunity to comment on the DSEIR.

Also, as shown in the attached report from traffic engineers Larry Wymer and Dan Smith, the DSEIR omitted from its area of study numerous intersections and freeway ramps that will also suffer potentially substantial increases in traffic congestion and delay. The omission of these intersections and freeway ramps from the DSEIR's analysis of the Project's effect on traffic also renders the DSEIR so legally inadequate as an informational document that it frustrates CEQA's goal of providing the public with a meaningful opportunity to comment on the DSEIR.

How did this happen? The DSEIR simply states: "The traffic impact assessment for the proposed project was conducted for 23 study intersections and six freeway ramp locations in the vicinity of the project site" (DSEIR, p. 5.2-72),<sup>1</sup> with no further explanation. The same is true for

<sup>1</sup>The DSEIR actually studies 22 intersections, not 23, in the tables listed in footnote 1.

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the six freeway ramps. (DSEIR, p. 5.2-74.)

The DSEIR does inform the reader that:

The impacts of the proposed project on the surrounding transportation network were analyzed using the Transportation Impact Analysis Guidelines issued by the Planning Department in 2002 (SF Guidelines 2002), which provides direction for analyzing transportation conditions and in identifying the transportation impacts of a proposed project.

(DSEIR, p. 5.2-69.) These Guidelines provide:

2. Project Setting

The setting information shall be presented immediately following the Project Description as a discrete chapter or report section. The goal is to provide a brief but complete description of existing transportation infrastructure and conditions in the vicinity of the project. Normally, the described vicinity is a radius between two blocks and 0.25 mile, however, a larger area may be determined in the scoping process. *The specific perimeters of the study area, for both setting and project impact analysis, are to be confirmed as part of the approval for the scope of work.*

(Transportation Impact Analysis Guidelines (October 2002), pp.6-7 (italics added).) Based on this text, the reader would expect to find the criteria and rationale for delimiting "the specific perimeters of the study area" in the Scope of Work which the City approved pursuant to these Guidelines as a prerequisite to preparation of the DSEIR. Unfortunately, this expectation is disappointed, because the City-approved Scope of Work is also silent on the topic. (DSEIR, Appendix TR, pp. TR-8 to TR 14.)

Consequently, the City must revise the DSEIR to include an analysis of the Project's congestion and delay impacts on the excluded intersections and freeway ramps and then recirculate the Revised DSEIR for at least 45 days for public review and comment.

**B. The DSEIR Fails to Disclose the Severity of the Project's Impacts on Intersections and Freeway Ramps which the Project Will Cause to Deteriorate to Level of Service (LOS) F.**

As explained by Dan Smith in his attached report, the DSEIR fails to disclose the severity of the Project's congestion and delay impacts on intersections and freeway ramps which the Project will cause to deteriorate to Level of Service (LOS) F.

The DSEIR discloses the Project will cause significant congestion and delay impacts at



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numerous intersections and freeway ramps in the “study area,” where Project-induced increases in congestion and delay will cause deterioration in Level of Service (LOS) to LOS E or F. (See intersections and freeway ramps listed in footnote 1.) For the intersections and freeway ramps in the “study area” where Project-induced increases in congestion and delay will cause deterioration to LOS E, the DSEIR provides a measurement of the degree of severity of the significant impact (i.e., average delay for intersections or average density for freeway ramps).

However, for the intersections and freeway ramps in the study area where Project-induced increases in congestion and delay will cause deterioration to LOS F, the DSEIR fails to provide a full measurement of the degree of severity of the significant impact. Instead, for intersections pushed to LOS F, instead of presenting a measure of average delay, the DSEIR provides a “greater than” measurement of “80 seconds per vehicle.” (See 5.2-74 and Tables cited above.) For freeway ramps pushed to LOS F, instead of providing the average density, the DSEIR provides no measurement of “existing plus project” density. Instead, the severity of the Project’s impacts at intersections and freeway ramps pushed to LOS F has no upper limit, and remains undisclosed, other than to note that “demand exceeds capacity.” (See 5.2-75, Table 5.2-19 and Tables cited above.)

Thus, the DSEIR fails to comply with CEQA because, beyond making the binary determination that the Project’s impacts on these intersections and freeway ramps are significant, the DSEIR fails to disclose the severity of these significant impacts. (See *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831 [“The conclusion that one of the unavoidable adverse impacts of the project will be the ‘increased demand upon water available from the Santiago County Water District’ is only stating the obvious. What is needed is some information about how adverse the adverse impact will be”].) Consequently, the City must revise the DSEIR to include this missing information, then recirculate the Revised DSEIR for at least 45 days for public review and comment.

### **C. The DSEIR Fails to Identify the Significance and Severity of the Project’s Impacts on Intersections Where the Project Will Use Parking Control Officers.**

In its impact assessment tables for “Intersection Level of Service - Existing plus Project Conditions - With a SF Giants Evening Game – Weekday PM and Saturday Evening Peak Hour” (DSEIR, p. 5.2-172, Table 5.2-47) and “Intersection Level of Service - Existing plus Project Conditions - With a SF Giants Evening Game – Weekday Evening and Late Evening Peak Hour” p. 5.2-174, Table 5.2-48), the DSEIR measures the significance of impacts by the use of Level of Service (LOS) and delay measurements.

But for two intersections, King and Third streets, and King and Fourth streets, the DSEIR provides no LOS or delay measurements, and therefore, no information on whether the Project’s congestion and delay impacts on these intersections are significant, and if so, the severity of these significant impacts.

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Instead, the DSEIR indicates that the Project calls for posting Parking Control Officers (PCOs) at these intersections at the times indicated. But the adoption of a mitigation measure cannot substitute for disclosing whether the Project’s impacts on these intersections are significant or their severity.<sup>2</sup>

### **D. The DSEIR’s Analysis of the Project’s Construction-Related Traffic Congestion and Delay Impacts Is Legally Flawed.**

The DSEIR’s analysis of the Project’s construction related traffic congestion and delay impacts is legally flawed because it is based on invalid criteria, it fails to lawfully assess the Project’s cumulative construction period impacts, and it improperly defers the development of mitigation measures to reduce the Project’s construction-related traffic impacts to less than significant.

The DSEIR states “Construction related impacts generally would not be considered significant due to their temporary and limited duration.” (DSEIR, p. 5.2-46.) This statement is placed in the section describing the DSEIR’s thresholds of significance. Therefore, it appears this conclusion reflects a policy decision rather than a fact-based assessment.

In the impacts analysis section, the DSEIR states: “Construction related impacts generally would not be considered significant due to their temporary and limited duration.” (DSEIR p 5.2-111). Elsewhere the DSEIR quantifies the construction period’s “temporary and limited duration” as 26 months. (DSEIR, p. 5.2-112.) However, the notion that the DSEIR can determine the Project’s construction related traffic impacts to be “less than significant” based primarily on their temporary duration is legally and logically flawed because from a cumulative standpoint, the Project’s construction impacts are part of an essentially permanent, not temporary, condition of ongoing construction in this part of San Francisco.

Indeed, the DSEIR’s discussion of the Project’s cumulative construction period impacts recognizes there are numerous other construction projects planned in Mission Bay and that the construction related traffic impacts of these projects will combine with this Project’s construction related impacts. (DSEIR, p. 5.2-210 (Impact C-TR-1.)

However, the DSEIR’s discussion of the Project’s cumulative construction period impacts

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<sup>2</sup>CEQA does not permit an agency to simply adopt mitigation measures in lieu of fully assessing a project’s potentially significant environmental impacts because mere acknowledgment that an impact would be significant is inadequate; the EIR must include a detailed analysis of “how adverse” the impact would be. (*Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 655-56’ *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1123; *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.)



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is flawed because it is constrained by several artificial limits.

First, as discussed in section I.A above, the impact assessment is limited to impacts and intersections and freeway ramps within the artificially restricted geographic “study area.”

Second, the impact assessment considers only construction projects within the Mission Bay neighborhood without regard to whether other “past, present, or reasonably foreseeable future projects” may be “closely related” because their impacts may combine with the Project’s impacts.

Third, the DSEIR’s analysis of cumulative traffic impacts for *construction* of the project only references a handful of foreseeable projects located very close to the Project, and the DSEIR’s discussion of these projects is solely in terms of whether their construction periods overlap with construction of this Project, as if the operational impacts of other “past, present, and reasonably foreseeable future projects” are not “closely related.” (See DSEIR, p. 5.2-10 and 11.)<sup>3</sup> This is incorrect because “closely related” simply means the other projects’ impacts may combine with the Project’s impacts.

Table 3 in the attached report by Larry Wymer shows that it is possible to include a broader range of projects - across both time and area - in the assessment of the Project’s cumulative construction period traffic impacts, and that when this is done, there are many Projects that will be under construction or operational in the period before, during, and after construction of the Project whose effects will combine with those of the Warriors Arena construction. Therefore, the Project’s construction impacts are part of an essentially permanent, not temporary, condition of ongoing construction in this part of San Francisco and the DSEIR errs by basing its determination of significance on the “limited duration” of the construction period. (DSEIR, p. 5.2-212.)

The second basis for the DSEIR’s less-than-significant determination is the DSEIR’s statement that “construction activities would be ... required to be conducted in accordance with City

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<sup>3</sup>These projects are:

- 1.13 million gsf of UCSF LRDP projects under construction at the Mission Bay Campus, including, the UCSF East Campus project on Blocks 33/34,
- Construction of Bayfront Park,
- realignment of Terry A. Francois Boulevard,
- construction of a neighborhood park on the north side of Mariposa Street east of Owens Street,
- the Exchange project on Mission Bay Block 40,
- the Family House project on Mission Bay Block 7 East,
- the Residential and Hotel project on Mission Bay Block 1,
- the 360 Berry Street project on Mission Bay Block N4/P3, and
- Caltrain’s Peninsula Corridor Electrification Project.

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requirements.” (DSEIR, p. 5.2-212.) This vague assurance is meaningless because the DSEIR does not specify what these “City requirements” are, does not specify a performance standard that these City requirements would either impose or achieve, and presents no evidence that these unspecified “City requirements” are likely to avoid significant cumulative construction related traffic effects. (See *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 95 (CBE); *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359; 1394 (Gentry).

The third and final basis for the DSEIR’s less-than-significant determination is “Improvement Measure I-TR-1: Construction Management Plan and Public Updates.” The DSEIR suggests this Plan would help avoid significant cumulative construction related traffic effects. (DSEIR, p. 5.2-212.) But it is improper for the DSEIR to rely on Improvement Measure I-TR-1 to help reduce impacts to less than significant because it is not identified as a mitigation measure necessary to substantially reduce significant Project impacts; therefore, it is not enforceable. (CEQA Guideline 15126.4(a)(4).)

Finally, the DSEIR fails to quantify the Projects’ construction period impacts, presumably based on its qualitative conclusion that unspecified “City requirements” and “Improvement Measure I-TR-1” will avoid significant impacts. This puts the cart before the horse.<sup>4</sup>

### E. The DSEIR’s Analysis of the Project’s Operational Traffic and Transit Congestion and Delay Impacts Is Legally Flawed.

#### 1. The DSEIR understates traffic and transit volumes in the PM peak period of 4:00 to 6:00 PM by using “time of arrival” at the Arena as a proxy measurement for “time of travel.”

In modeling traffic and transit impacts, the DSEIR assumes only 5% of basketball game attendees will be traveling in the “study area” in the PM peak period of 4:00 to 6:00 p.m. Table 5.2-21 states that 5% of arrivals are expected before 6:00 p.m. for 7:30 p.m. weekday basketball games; another 11% will arrive between 6:00 and 6:30 p.m. (DSEIR, p. 5.2-83.) This data is based on turnstile counts of people entering the arena.

As explained by Dan Smith in his attached report, this proxy measurement does not provide reliable data as to when game or event attendees are actually traveling through affected intersections or freeway ramps or using affected transit routes:

These considerations are so obvious to any transportation professional knowledgeable about sports stadium transportation issues that the analysis presented

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<sup>4</sup>See footnote 2 above.



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in the DSEIR cannot be said to constitute the good faith effort to disclose impact that the California Environmental Quality Act demands. Since the entire analysis of transportation impacts flows from the estimate of trip generation and time-of-travel analysis, the entire transportation impact component of the DSEIR must be redone to accurately reflect the time that event attendees are actually traveling on the transportation system instead of the time they enter the event venue.

(Exhibit 1, p. 3.)

In his analysis, Mr. Smith found:

it seems highly probable that as much as one-third or more of the trips that the DSEIR considers to take place in the 6 to 7 PM period and the 7 to 8 PM period would actually be on the transportation system in the more critical 5 to 6 PM commute peak hour. That would put 7,466 event-related travelers on the transportation system in the 5 PM to 6 PM period instead of the 1,866 assumed in the DSEIR, a difference that would likely result in transportation impacts not disclosed in the DSEIR and/or intensification of impacts and mitigation needs of those that were disclosed.

(Exhibit 1, p. 3.)

Even just applying common sense to the DSEIR's data indicates that many or most of the 11% that the DSEIR says arrive at the turnstile between 6:00 and 6:30 p.m. would be traveling to the event in the PM peak period of 4:00 to 6:00 pm. This minimal adjustment alone changes the assumption on which the modeling is based from 5% to 16% traveling in the "study area" in the PM peak period of 4:00 to 6:00 pm. As shown by Mr. Smith, this minimal adjustment more than doubles the Project's contribution of traffic to affected intersections, and would change the DSEIR's determination from less-than-significant to significant at some intersections. (Exhibit 1, p. 4.)

This issue was flagged in public scoping comments on the DSEIR. (DSEIR, p. 2-15.) Yet, somehow, the DSEIR did not adjust its reliance on turnstile data to develop a reliable metric to use instead. Instead, the DSEIR offers a series of weak or irrelevant rationales for its methodology, including:

because basketball games typically start at 7:30 p.m. a higher percentage of inbound event attendees would travel to the event center during the 6:00 to 8:00 p.m. period than during the 4:00 to 6:00 p.m. commute peak period.

(DSEIR p. 5.2-71); and

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the SF Guidelines do not include travel demand characteristics for the specialized uses (e.g., sports events, conventions, and other events) that would take place at the proposed event center. Similarly, standard trip generation resources, such as the Institute of Transportation Engineer's Trip Generation Manual, do not include sufficiently detailed trip generation data for such specialized uses. Therefore, the travel demand for the event center component of the proposed project was based on the estimated attendance, as well as information on current travel characteristics of Golden State Warriors basketball attendees at the Oracle arena in Oakland.

(DSEIR, p. 5.2-81); and

The data are based on information provided by the Golden State Warriors for their current facility, which was then adjusted to provide for earlier arrival patterns based on comparable information collected at similar NBA facilities to account for the increased availability of retail and restaurant uses at the proposed project site compared to Oracle Arena in Oakland. A summary of this data is provided in the travel demand technical memorandum included in Appendix TR.

(DSEIR, p. 5.2-82.)<sup>5</sup>

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<sup>5</sup> In the "Travel Demand Methodology and Results" section of Chapter 5.2, the DSEIR states:

The Basketball Game scenario reflects the travel demand of the office, retail and restaurant uses, plus an evening basketball game. The transportation impact analysis of the Basketball Game scenario was conducted for four analysis hours (weekday p.m., weekday evening, weekday late evening, and Saturday evening), for conditions without and with an overlapping SF Giants evening game at AT&T Park.

Table 5.2-21 presents the expected temporal distribution of arrival and departure patterns for basketball game attendees of the proposed project. The data are based on information provided by the Golden State Warriors for their current facility, which was then adjusted to provide for earlier arrival patterns based on comparable information collected at similar NBA facilities to account for the increased availability of retail and restaurant uses at the proposed project site compared to Oracle Arena in Oakland. A summary of this data is provided in the travel demand technical memorandum included in Appendix TR. Based on this information, it was assumed that approximately 5 percent of arrivals to a basketball game would occur during the p.m. peak hour (5:00 to 6:00 p.m.), and up to 66 percent of arrivals would occur during the evening peak hour (7:00 to 8:00 p.m.). Similarly, up to 70 percent of the departures would occur during the late evening peak hour (9:00 to 10:00 p.m.).



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A discussion and summary of the data from other venues than Oracle is provided in DSEIR, Appendix TR, at pp. TR-21 to TR-25 and TR-37 [Appendix A, p. A-9]. The table at page TR-37 provides time of arrival data from, in addition to Oracle, six purportedly “comparable” venues, namely: Icon Venue Group, Houston, Phoenix, Sacramento, Brooklyn (2013-2014), and Brooklyn (2014-2015). An interesting fact about this table is that the data for 4:00 to 6:00 p.m. arrivals at four of these six venues (i.e., Icon Venue Group, Houston, Phoenix, Sacramento) is “included in” the data for later time periods. So, in fact, the only purportedly comparable venue for which the DSEIR presents supporting data is Brooklyn (2013-2014 and 2014-2015). The venue with the largest proportion of arrivals in the 4:00 to 6:00 p.m. period is Brooklyn (2014-2015), with 4.1%.

In short, the City and the Warriors failed to develop reliable accurate, reliable data on the key variable in the entire transportation analysis, i.e., the number of people traveling to events in the peak PM time period when traffic and transit crowding are at their worst. A lead agency “must use its best efforts to find out and disclose all that it reasonably can.” (CEQA Guideline, § 15144.)

The above quoted rationales do not excuse this failure. The scoping comments flagging this issue were submitted to the City between November 19, 2014, and December 19, 2014, during the middle of the basketball season. (DSEIR, p. 2-8 and 2-9, 2-15.) The Warriors played fifty-seven (57) games between December 19, 2014, through the close of the regular season on April 15, 2015.<sup>6</sup> There are thirty (30) teams in the NBA.<sup>7</sup> That means there were approximately eight-hundred and fifty five (i.e.,  $15 \times 57 = 855$ ) regular season games played in the 2014-2015 regular season after December 19, 2014. In the playoffs following the regular season, sixteen teams played a total of seventy-nine games after April 15, 2015.<sup>8</sup>

Therefore, both the Warriors and the City had ample opportunity to conduct market research by interviews and exit polling of a sample of the hundreds of thousands of fans attending these games to discover how far in advance of arriving at the turnstile they traveled through the traffic and transit impacted area surrounding the venue. The City’s and Warriors’ decision to pass up this opportunity after being informed of the issue does not satisfy their duty to use best efforts to find out

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Event staff for basketball games would be expected to arrive between 4:30 and 5:00 p.m. and would be on post prior to the gate opening time; event staff would leave between 11:00 and 11:30 p.m.

(DSEIR, p. 5.2-82.)

<sup>6</sup><http://www.nba.com/warriors/schedule>,

<sup>7</sup><http://www.nba.com/teams/?ls=iref:nba:gnav>

<sup>8</sup><http://www.nba.com/playoffs/>

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and disclose all they reasonably can.

Indeed, the City was fully aware of the need to gather information more relevant to fans “time of travel” than turnstile counts and made some efforts to do so. But it failed to disclose that there are alternative metrics for “time of travel” or the results of its efforts in this regard. For example, an email exchange dated January 12, 2015, between the City’s EIR consultant (ESA) and City Planning officials includes data on arrivals before 6:00 p.m. at the Arco Arena parking lot for a 7:00 p.m. Sacramento Kings game and arrivals before 6:00 p.m. in buildings for other NBA venues. Thus, the City was aware of other measurements (e.g., parking lot entry rather than turnstile counts) that could more accurately predict peak PM period travel to games.

Also, the arrival numbers cited in this email exchange show 14% arriving at the Arco Arena parking lot before 6 p.m. for one 7 p.m. game and 9% arriving before 6 p.m. in buildings for other NBA venues. These numbers indicate the DSEIR’s assumption that 5% of fans will be traveling through the study area before 6 p.m. for 7:30 p.m. games is vastly understated. Yet the DSEIR fails to reference these numbers.

The DSEIR must be revised to provide accurate peak period traffic data and analysis

**2. The DSEIR’s Analysis of the Project’s Cumulative Impacts Does Not Comply With CEQA.**

**a. The 5% threshold of significance for impacts at intersections and freeway ramps operating at LOS E or F violates CEQA.**

For intersections operating at LOS E or F, the DSEIR uses a threshold of significance of “a contribution of 5 percent or more to the traffic volumes at the critical movements operating at LOS E or LOS F” (DSEIR, p. 5.2-73-74.) For freeway ramps operating at LOS E or F, the DSEIR uses a threshold of significance of “a contribution of 5 percent or more to the traffic volumes on the ramp.” (DSEIR, p. 5.2-74.)<sup>9</sup>

No rationale for the 5% threshold is provided. Indeed, blind reliance on this number ignores the law governing the assessment of cumulative impacts, which requires a fact based assessment that takes into account the severity of preexisting impacts. A one-size-fits-all “ratio” violates CEQA. (See *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 120 (“*Communities*”); *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d

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<sup>9</sup>“The project may result in significant adverse impacts at intersections that operate at LOS E or LOS F under existing conditions depending upon the magnitude of the project’s contribution to the worsening of the average delay per vehicle.” (DSEIR, p. 5.2-45.)



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692, 720-21 (*Kings County*). *Communities* and *Kings County* teach that the significance of a cumulative impact depends on the environmental setting in which it occurs, especially the severity of existing environmental harm, and that focusing on the magnitude (i.e., “ratio”) of the Project’s incremental contribution to severe preexisting harm is inconsistent with the definition of cumulative impacts under CEQA.<sup>10</sup>

**b. The year 2040 baseline for assessing the significance of the Project’s cumulative impacts violates CEQA.**

The DSEIR assesses the Project’s incremental traffic and transit impacts and its cumulative traffic and transit impacts pegged to the year 2040, which is 25 years in the future.<sup>11</sup> While the Alliance supports such long range forecasting in general, as used in this DSEIR the year 2040 baseline for assessing the significance of the Project’s cumulative impacts is misleading, for two reasons.

First, this approach overlooks the Project’s cumulative traffic and transit impacts pegged to its first 1 to 10 years of operations. This time period is of immediate interest to the citizens of San Francisco because the traffic mess predicted by the DSEIR will be upon them then. And who among them know whether they will even be in the City by the year 2040. Thus, while including a year 2040 baseline is not in itself objectionable, the omission of a baseline 5 to 10 years in the future

<sup>10</sup>(*Communities*, 103 Cal.App.4th at p. 120 [“[T]he relevant question”... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether “any additional amount” of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant. [footnote omitted]”]; *Kings County*, 221 Cal.App.3d at pp. 720-21 [“They contend in assessing significance the EIR focuses upon the ratio between the project’s impacts and the overall problem, contrary to the intent of CEQA.... We find the analysis used in the EIR and urged by GWF avoids analyzing the severity of the problem and allows the approval of projects which, when taken in isolation, appear insignificant, but when viewed together, appear startling. Under GWF’s ‘ratio’ theory, the greater the overall problem, the less significance a project has in a cumulative impacts analysis. We conclude the standard for a cumulative impacts analysis is defined by the use of the term ‘collectively significant’ in Guidelines section 15355 and the analysis must assess the collective or combined effect of energy development”].)

<sup>11</sup>“Future 2040 cumulative traffic volumes were estimated based on cumulative development and growth identified by the San Francisco County Transportation Authority SF-CHAMP travel demand model, using model output that represents Existing conditions and model output for 2040 cumulative conditions.” (DSEIR, p. 5.2-110.)

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renders the DSEIR informationally defective.

Second, by using a baseline projected to the year 2040, the DSEIR inflates the denominator in the 5% “ratio” it uses to determine the significance of Project cumulative impacts at LOS E and F intersections, thereby masking actual significant effects. (See Exhibit 2 (D. Smith), p. 25.)

**c. The DSEIR’s use of a “projection” based approach to the Project’s cumulative impacts is misleading.**

The DSEIR states that:

Future 2040 cumulative traffic volumes were estimated based on cumulative development and growth identified by the San Francisco County Transportation Authority SF-CHAMP travel demand model, using model output that represents Existing conditions and model output for 2040 cumulative conditions. .... The 2040 cumulative traffic volumes take into account cumulative development projects in the project vicinity, such as the build-out of the Mission Bay Area, completion of the UCSF Research Campus and the UCSF Medical Center, the Mission Rock Project at Seawall Lot 337, Pier 70, etc., as well as the additional vehicle trips generated by the proposed project.

(DSEIR, p. 5.2-110.)<sup>12</sup>

The DSEIR presents no evidence supporting the DSEIR’s assumption that the year 2040 projection is reliable for predicting future traffic and transit demand, other than the vague assertion that the “SF-CHAMP travel demand model, using model output that represents Existing conditions and model output for 2040 cumulative conditions ... has been validated to represent future

<sup>12</sup>In the section titled “Approach to Cumulative Impact Analysis” (DSEIR 5.1-6, § 5.1.5), the DSEIR asserts that the CEQA Guidelines provide “two approaches to a cumulative impact analysis ... (a) the analysis can be based on a list of past, present, and probable future projects producing related or cumulative impacts; or (b) a summary of projections contained in a general plan or related planning document can be used to determine cumulative impacts. The projections model includes individual projects and applies a quantitative growth factor to account for other growth that may occur in the area.” (DSEIR, p. 5.1-7.) The DSEIR asserts that “The analyses in this SEIR employ both the list-based approach and a projections-based approach, depending on which approach best suits the individual resource topic being analyzed ... the Transportation and Circulation analysis relies on a citywide growth projection model that also encompasses many individual projects anticipated in and surrounding the project site vicinity, which is the typical methodology the San Francisco Planning Department applies to analysis of transportation impacts.” (DSEIR, p. 5.1-7.)



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transportation conditions in San Francisco.” (DSEIR, p. 5.2-110.) But, as explained by Mr Smith, the SF-CHAMP model’s margin of error is greater than the 5% threshold used to determine the significance of Project cumulative impacts at LOS E and F intersections. (See Exhibit 2 (D. Smith), p. 25.) Therefore, SF-CHAMP is the wrong tool for the task.

Further, given the sheer number of developments in this area of the City (see table 3 of Mr. Wymer’s report) and the bottleneck pace of their approval and implementation, the projection approach is misleading, not informative. Therefore, the DSEIR’s cumulative impact assessment must use a list based approach to forecast reasonably foreseeable travel demand, and do so in a meaningful time frame.

**F. The DSEIR’s Methodology for Analyzing Project Impacts on the Transit System Is Legally Flawed.**

The DSEIR summarizes its methodology for analyzing Project Impacts on the transit system, as follows:

The impact of additional transit ridership generated by the proposed project on local and regional transit providers was assessed by comparing the projected ridership to the available transit capacity at the maximum load point. Transit “capacity utilization” refers to transit riders as a percentage of the capacity of the transit line, or group of lines combined and analyzed as screenlines across which transit lines travel. The transit analyses were conducted for the peak direction of travel for each of the analysis time periods.

(DSEIR, p. 5.2-75.)

This methodology contains two flaws. First, it suffers from the same unwarranted and unsupported assumptions about basketball fans’ time of travel to the arena for games described above. Second, the DSEIR’s use of transit screenline and route capacities is also misleading and unsupported.

**1. The DSEIR’s use of transit screenline and route capacities is misleading and unsupported.**

For its Project specific (or incremental) transit impact analysis, the DSEIR uses the following thresholds of significance:

The proposed project was determined to have a significant transit impact if project-generated transit trips would cause downtown or regional screenlines, and, where applicable, directly affected routes, operating at less than its capacity

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utilization standard under existing conditions, to operate at more than capacity utilization standard. For Muni, the capacity utilization standard is 85 percent for conditions without an event at the project site, and 100 percent for conditions with an event at the project site. For regional operators, the capacity utilization standard is 100 percent for conditions without and with an event at the project site.

(DSEIR, p. 5.2-76, 77.)

For its cumulative transit impact analysis, the DSEIR uses the following thresholds of significance:

Under 2040 cumulative conditions, the proposed project was determined to have a significant cumulative impact if its implementation would cause the capacity utilization at the Muni and regional screenlines and/or corridors within the screenlines to exceed the capacity utilization standard noted above for conditions without and with an event at the project site, or if its implementation would contribute considerably to a screenline or corridor projected to operate at greater than the capacity utilization standard under 2040 cumulative plus project conditions (i.e., a contribution of 5 percent or more to the transit ridership on the screenline or route). In addition, if it was determined that the proposed project would have a significant project-specific transit impact under existing plus project conditions, then the impact would also be considered a significant cumulative impact under 2040 cumulative conditions.

(DSEIR, p. 5.2-76, 77.)

For both Project specific (incremental) and cumulative impacts, the DSEIR uses “capacity utilization standards” as baselines against which to measure the Project’s impacts. Capacity utilization standards are specific percentages of the theoretical maximum capacity of a transit screenline or transit line.

For Project specific (or incremental) thresholds of significance for Muni, the DSEIR uses two different capacity utilization standards against which to measure the Project’s impacts. For conditions without an event at the Project site, the capacity utilization standard is 85 percent of maximum theoretical capacity of the transit screenline or line. For conditions with an event at the Project site, the capacity utilization standard is 100 percent of maximum theoretical capacity.

If the question to be answered by the transit impact analysis is whether the Project will inflict significant suffering on people riding Muni, why does the DSEIR use two different baselines for its impact assessment. If exceeding 85% inflicts suffering without an event, then exceeding 85% will inflict suffering with an event.



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The DSEIR does not examine this use of inconsistent baselines. However, the June 21, 2013, Planning Department Memorandum “Transit Data for Transportation Impact Studies” (at Appendix-TR, p. TR-624) states:

The SFMTA Board has adopted an “85 percent” capacity utilization standard for transit vehicle loads. In other words, transit lines should operate at or below 85 percent capacity utilization. The SFMTA Board has determined that this threshold more accurately reflects actual operations and the likelihood of “pass-ups” (i.e., vehicles not stopping to pick up more passengers). The Planning Department, in preparing and reviewing transportation impact studies, has similarly utilized the 85 percent capacity utilization as a threshold of significance for determining peak period transit demand impacts to the SFMTA lines.

(DSEIR, Appendix-TR, p. TR-624.) Thus, the 85 percent capacity utilization threshold apparently has nothing to do with the suffering of Muni’s passengers; it simply reflects the reality of Muni’s operations. And even if 85% of capacity is the break point at which Muni drivers tend to refuse to pick up more passengers due to overcrowding, then using 100% of capacity as a threshold of significance is entirely unsupportable.

For its cumulative impact analysis, the DSEIR uses the same baselines and thresholds of significance discussed above plus one more if the Project “would contribute considerably to a screenline or corridor projected to operate at greater than the capacity utilization standard under 2040 cumulative plus project conditions (i.e., a contribution of 5 percent or more to the transit ridership on the screenline or route).”

The 5% threshold for determining a Project’s contribution to be “considerable” is stated at Appendix-TR, p. TR-625. No rationale for this number is provided. A Project contributing 1% more capacity utilization to a screenline that usually operates at 84%, resulting in a total capacity utilization of 85%, may not contribute considerably to a significant impacts, while a Project contributing 1% more capacity utilization to a screenline that usually operates at 94%, resulting in a total capacity utilization of 95%, may well contribute considerably to a significant impact. A one-size-fits-all “ratio” violates CEQA. (See *Communities, supra*; *Kings County, supra*.)

### G. The DSEIR Unlawfully Defers the Development of Mitigation Measures.

The DSEIR sketches out a number of concepts for mitigating the Project’s significant transportation effects where it defers the development of specific mitigation measure until a future date. The DSEIR’s deferral all of the mitigation measures listed below in this section does not meet CEQA requirements to identify specific mitigation measures in the Draft EIR so the public may meaningfully review and comment on them. These measures violate CEQA’s requirements for deferred mitigation because the DSEIR does not specify binding performance standards by which

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the measures’ success can be judged, there is no evidence it is impracticable to develop and include the specific measures in the DSEIR, there is no evidence the measures will be effective, there is no evidence the measures are feasible, there is no evidence the measures will be implemented because the Project Sponsor may deem them infeasible, and the measures are not enforceable. (See *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 95 (CBE); *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359; 1394 (Gentry).)

The listed measures are qualified by language such as “if feasible” or “could include” (e.g., Measure M-TR-2b). Such qualifications render the measures illusory, unenforceable, and ineffective for purposes of the DSEIR’s claim of substantial reductions in impact or reductions in impact to less-than-significant levels. (See *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1260-1262; *Lincoln Place Tenants Association v. City of Los Angeles* (2005) 130 Cal.App.4th 1491, 1508 [“mitigating conditions are not mere expressions of hope...”].)

Even the listed measures that include performance standards (e.g., Measure M-TR-18) do not require they be achieved. For example, Measure M-TR-18 only requires that the Project Sponsor “work to achieve” the performance standards. CEQA requires that deferred mitigation measures include binding performance standards.

- Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts. (DSEIR, p. 1-15.)
- Mission Bay FSEIR Mitigation Measure E.47: Transportation System Management Plan. (DSEIR, p. 1-17.)
- Mitigation Measure M-TR-5a: Additional Caltrain Service. (DSEIR, p. 1-18.)
- Mitigation Measure M-TR-5b: Additional North Bay Ferry and/or Bus Service. (DSEIR, p. 1-19.)
- Mitigation Measure M-TR-9a: Crane Safety Plan for Project Construction. (DSEIR, p. 1-20.)
- Mitigation Measure M-TR-9d: Event Center Exterior Lighting Plan. (DSEIR, p. 1-21.)
- Mitigation Measure M-TR-11b: Participation in the Ballpark/Mission Bay Transportation Coordinating Committee. (DSEIR, p. 1-22.)
- Mitigation Measure M-TR-11c: Additional Strategies to Reduce Transportation Impacts of Overlapping Events. (DSEIR, p. 1-23.)
- Mitigation Measure M-TR-13: Additional Muni Transit Service during Overlapping Events.



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(DSEIR, p. 1-24.)

- Mitigation Measure M-TR-14: Additional BART Service to the East Bay during Overlapping Events. (DSEIR, p. 1-24.)
- Mitigation Measure M-TR-18: Auto Mode Share Performance Standard and Monitoring. (DSEIR, p. 1-25.)

### H. The DSEIR's Discussion of Transportation Impacts Is Incomplete.

The DSEIR analyzes transportation impacts in two broad scenarios: with and without implementation of the Special Events Transit Service Plan.

In the scenario "With Implementation of the Special Events Transit Service Plan" the DSEIR analyzes two narrower scenarios: with and without a Giants game. In each Giants game scenario, the DSEIR analyzes three narrower scenarios: no event, convention event, and basketball game. The result is six scenarios applied to ten different transportation resources, as shown in Table 2.

Table 2

With Implementation of the Special Events Transit Service Plan					
Without Giants game			With Giants game		
No event	Convention event	Basketball game	No event	Convention event	Basketball game
TR-1 Construction - Traffic	LS		TR-1 Construction - Traffic	LS	
TR-2 Traffic - Intersections	SUM		TR-11 Traffic - Intersections	SUM	
TR-3 Traffic - Freeway Ramps	SUM		TR-12 Traffic - Freeway Ramps	SUM	
TR-4 Transit - Muni	LS		TR-13 Transit - Muni	LSM	
TR-5 Transit - Regional - Caltrain	SUM		TR-14 Transit - Regional - All	SUM	
TR-6 Pedestrian	LSM		TR-15 Pedestrian	LSM	
TR-7 Bicycle	LS		TR-16 Bicycle	LS	
TR-8 Loading	LS		TR-17 Emergency Vehicle Access	LS	
TR-9a Construction Helipad	LSM				
TR-9b Const. Lights Helipad	LS				
TR-9c Operation Helipad	LS				
TR-9b Operation Lights Helipad	LSM				
TR-10 Emergency Vehicle Access	LS				

In the scenario "Without Implementation of the Special Events Transit Service Plan"

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Tiffany Bohee  
c/o Brett Bollinger  
Re: Mission bay Alliance comments on the Warriors Arena Project DSEIR: **Transportation Impacts**  
July 27, 2015  
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the DSEIR analyzes only one narrower scenario: without a Giants game and with a basketball game. The result is one scenario applied to ten different transportation resources, but the omission of the other five scenarios, as shown in Table 3.

Table 3

Without Implementation of the Special Events Transit Service Plan	
Without Giants game	
Basketball Game	
TR-1 Construction - Traffic	LS
TR-18 Traffic - Intersections	SUM
TR-19 Traffic - Freeway Ramps	SUM
TR-20 Transit - Muni	SUM
TR-21 Transit - Regional	SUM
TR-22 Pedestrian	LSM
TR-23 Bicycle	LS
TR-24 Loading	LS
TR-25 Emergency Vehicle Access	LS

Since the scenario "Without Implementation of the Special Events Transit Service Plan" is likely enough to justify including it in the DSEIR, the DSEIR should include the other five omitted scenarios.

In addition, the DSEIR's cumulative impact analysis does not even inform the reader if it is performed for the "with" or "without" scenario for "Implementation of the Special Events Transit Service Plan." The cumulative impact analysis should include both scenarios, and should inform the reader which is which.

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe



O-MBA27S9

Tiffany Bohee  
c/o Brett Bollinger  
Re: Mission bay Alliance comments on the Warriors Arena Project DSEIR: **Transportation Impacts**  
July 27, 2015  
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**List of Exhibits**

1. July 23, 2015, letter report authored by traffic engineer Dan Smith.
2. July 21, 2015, letter report authored by traffic engineer Larry Wymer.
3. January 12, 2015, email exchange dated between the City's EIR consultant (ESA) and City Planning officials.
4. December 2013, Final Report, San Francisco Transportation Plan 2040, prepared by San Francisco County Transportation Authority.
5. Final Report Appendices, Appendix B: White Paper, TRANSPORTATION NEEDS, San Francisco Transportation Plan 2040, prepared by San Francisco County Transportation Authority.
6. Final Report Appendices, Appendix C: CORE CIRCULATION STUDY, San Francisco Transportation Plan 2040, prepared by San Francisco County Transportation Authority.
7. Final Report Appendices, Appendix K: SF TRAVEL AT A GLANCE, San Francisco Transportation Plan 2040, prepared by San Francisco County Transportation Authority.
8. May 21, 2013, San Francisco Transportation Plan Update, SPUR Annie Alley Forum, San Francisco Transportation Plan 2040, prepared by San Francisco County Transportation Authority.

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O-MBA28L11

Law Offices of  
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November 9, 2015

Budget and Finance Committee  
San Francisco Board of Supervisors  
c/o Ms. Angela Calvillo  
Clerk of the Board of Supervisors  
1 Dr. Carlton B. Goodlett Place  
San Francisco, CA 94102-4689

Re: November 9, 2015 Budget and Finance Committee, Warriors Arena Project CEQA Findings, Resolution 150994

Dear Committee Members:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project"). The Mission Bay Alliance objects to approval of the Project for the following reasons.

1. The Project SEIR does not comply with CEQA, as described in the Alliance's many comments on the SEIR submitted to the Successor Agency. Over the last three months, the Mission Bay Alliance has reviewed and commented on material inadequacies in the Project's expedited environmental review process. This Committee and the Board of Supervisors cannot fully consider and adequately mitigate the Project's many significant impacts without the benefit of an EIR that complies with CEQA.

1  
[LC-ERP-1]

The CEQA findings adopted by the OCII and the SFMTA are, therefore, premature and unsupported, as explained in the Alliance's comments on the Draft Subsequent Environmental Impact Report ("DSEIR"), as well as letters submitted following the Final SEIR.

2  
[LC-ERP-3]

Please refer to the following letters previously submitted and incorporated by reference:

From the Law Offices of Thomas N. Lippe:

(1) November 2, 2015, letter to OCII and Planning Department re: Comments on Final Subsequent Environmental Impact Report for the Warriors Arena Project Re Air Quality, Transportation, Hydrology, Water Quality, Biological, and Noise Impacts, including:

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[LC-ERP-6]

(2) As Exhibit A thereto, a November 2, 2015, letter from John Farrow, including

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- (3) As Exhibit 1 to Exhibit A, November 2, 2015, letter report from Paul Rosenfeld and Jessie Jaeger of SWAPS to Thomas Lippe, re Comments on the Event Center and Mixed-Use Development Project at Mission Bay Blocks 29-32.
- (4) As Exhibit C thereto, a November 2, 2015, report by Greg Gilbert, Autumn Wind Associates.
- (5) As Exhibit F thereto, a November 2, 2015, letter from Dan Smith.
- (6) As Exhibit G thereto, a November 2, 2015, letter from Larry Wymer.
- (7) As Exhibit H thereto, a November 2, 2015, letter from Matt Hageman.
- (8) As Exhibit I thereto, a November 2, 2015, letter from Erik Ringelberg and Kurt Balasek.
- (9) As Exhibit J thereto, a November 2, 2015, letter from Erik Ringelberg.
- (10) As Exhibit K thereto, a July 16, 2015, BSK Technical Memorandum Regarding the Proposed Warrior Arena Wetland Features by Erik Ringelberg and Kevin Grove.
- (11) As Exhibit L thereto, an October 29, 2015, Draft Waters and Wetland Delineation Report Proposed Mission Bay Development, Blocks 29-32 San Francisco, California, by Erik Ringelberg and Kevin Grove of BSK Associates.
- (12) November 2, 2015, letter to OCII re: Warriors Arena Project: Violation of Variance Requirement.
- (13) November 5, 2015, letter to Planning Commission re: Warriors Arena Project: Planning Codes section 321 and 305, General Plan Inconsistency and CEQA Findings.
- (14) July 24, 2015, letter regarding impacts on Hydrology, Water Quality, and Biological Resources, including:
- (15) July 21, 2015, letter report authored by Matt Hageman, P.G., C.Hg., QSD, QSP;
- (16) July 21, 2015, letter report authored by Erik Ringelberg, B.Sc., M.Sc., Ph.D candidate; and Kurt Balasek, PG, CHg, QSD.
- (17) July 25, 2015, letter regarding impacts on Noise and Vibration, including:
- (18) July 24, 2015, letter report authored by acoustic engineer Frank Hubach.

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[LC-ERP-6]  
cont.

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- (19) July 26, 2015, letter regarding impacts on Air Quality, including:
- (20) July 19, 2015, letter report authored by Greg Gilbert; and
- (21) July 20, 2015, letter report authored by Paul Rosenfeld, Ph.D, and Jessie Jagger.
- (22) July 27, 2015, letter regarding impacts on Transportation, including:
- (23) July 23, 2015, letter report authored by traffic engineer Dan Smith; and
- (24) July 21, 2015, letter report authored by traffic engineer Larry Wymer.
- From the law firm of Soluri Meserve:
- (25) November 3, 2015, Letter to the San Francisco Municipal Transportation Agency, Board of Directors regarding their November 3, 2015, Agenda Item No. 13.
- (26) November 2, 2015, Letter to the OCII and San Francisco Planning Department regarding the Environmental Review for Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32.
- (27) October 20, 2015, letter to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review for Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 - Updated Soil and Screening Levels.
- (28) October 7, 2015, Letter to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review for Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 - Clean Water Act 404 and CZMA Consistency.
- (29) July 9, 2015, Letter to the San Francisco Planning Department regarding Notice of Incomplete Record for Warriors Event Center Environmental Review.
- (30) 9. July 26, 2015, letter regarding impacts on Geology and Soils, Recreation, Hazardous Materials, , Greenhouse Gases, Wind and Shadow, Utilities and Service Systems, Public Services, Energy and Urban Decay, including:
- (31) July 22, 2015, letter report authored by air quality professionals Patrick Sullivan, CPP, REPA, and Joh Henkelman, regarding Greenhouse Gas Emissions;
- (32) July 22, 2015, letter report authored by geotechnical engineer Lawrence Karp, CE, CEG, regarding Geology and Soils impacts;

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[LC-ERP-6]  
cont.



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(33) July 22, 2015, letter report authored by engineering geologist Marin Cline, CEG, and hydrogeologist Kurt Balasek, PG, CHg, QSD, regarding Geology and Soils impacts;

(34) July 22, 2015, letter report authored by geotechnical engineer Martin Cline, GEG and Kurt Balasek, PG, CHg, QSD, regarding Hazardous Materials; and

(35) July 22, 2015, letter report authored by economist Philip King, Ph.D., regarding Urban Decay.

(36) June 29, 2015, letter regarding the City's failure to comply with AB 900 record keeping procedures and the resultant ineligibility of the Project for AB 900's litigation fast track procedures.

From the Brandt-Hawley Law Group:

(37) October 13, 2015, letter to the OCII the potentially-feasible alternate site adjacent to Pier 80.

(38) November 3, 2015, letter to the OCII regarding inadequate CEQA findings and inadequate SEIR responses to comments relating to land use plan inconsistencies, potentially-feasible project alternatives, and cultural resources.

(39) 8. July 26, 2015, letter regarding impacts on Land Use, Aesthetics, Cultural Resources, and Project Alternatives.

From Thomas Lippe, Susan Brandt-Hawley, Patrick Soluri, and Osha Meserve jointly:

(40) July 26, 2015, letter regarding EIR tiering;

(41) July 26, 2015, letter regarding litigation streamlining under AB 900.

2. The Project does not comply with the Mission Bay South Redevelopment Plan as discussed in my November 5, 2015, letter to the Planning Commission attached as Exhibit 1.

3. The Project does not comply with the San Francisco General Plan as discussed in my November 5, 2015, letter to the Planning Commission attached as Exhibit 1.

4. The Project does not comply with Proposition M, as codified at Planning Code Section 320 et seq and Planning Commission Motion 17709, and is it is ineligible for allocation of any office space under Planning Code section 321 and Motion 17709, as discussed in my November 5, 2015, letter to the Planning Commission attached as Exhibit 1.

5. The Board of Supervisors cannot find that "Impact AQ-4: Potential conflicts with

3  
[LC-ERP-6]  
cont.

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[LC-PP-1]

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[LC-PP-3]

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[LC-PP-2]

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[LC-AQ-1]

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BAAQMD's 2010 Clean Air Plan" is less than significant with mitigation because the City and Project Sponsor refuse to agree to BAAQMD's offset fees per Mitigation Measure M-AQ-2b. (See Exhibits 4 and 5.) There is also no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible. There are too many unanswered questions regarding Option 2, including lack of assured verification of offsets to ensure their effectiveness, and lack of assurance that offset sources are available in the quantity required. BAAQMD's offset program at least answers some, if not all, of these questions.

The Commission cannot find that all feasible mitigation measures that would substantially reduce "Impact AQ-1: Impacts of Criteria Air Pollutants from Construction" have been adopted as required by CEQA section 21081, because there is no evidence that paying the offset fees demanded by BAAQMD is infeasible. Also, as discussed above, there is no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible; therefore, it is not an adequate substitute for BAAQMD's offset program. This also applies to:

- Impact AQ-2: Impacts of Criteria Air Pollutants from Project Operations; and
- Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts.

6. The Commission cannot find that feasible alternatives that would substantially reduce the Project's significant impacts have been adopted. The SEIR does not analyze the alternate site proposed by the Alliance near Pier 80, and did not circulate that analysis for public comment. Neither OCII nor this Commission has the basis to make conclusory findings rejecting the alternative. Among the relevant facts not considered in the findings is that the site is three times as large as would be required for the Event Center project and need not utilize any of the City-owned property nor any particular configuration of the privately-owned lots should there be an unwilling seller. There is no evidence provided that the site could not be acquired within a reasonable time period.

Case law confirms that assuring a site's consistency with city plans and zoning is within the City's power. Similarly, the scheduling of transportation services to the site can be increased, and the findings provide no studies to back up conclusory statements regarding traffic, air quality, hydrology, or water quality impacts. Since only a third of the site is needed to accommodate the event center, all of the impacts (if shown to have concern after sufficient technical review) can be avoided or mitigated. As stated in the Alliance letter to OCII that proposes this site for consideration as an alternative, here incorporated by reference, the SEIR failed to consider a potentially-feasible off-site alternative and must be revised and recirculated to do so before findings of infeasibility may be considered or adopted. The site suggested by the Alliance is potentially feasible and deserving of study.

7  
[LC-AQ-1]  
cont.

8  
[LC-ALT-1]

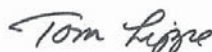


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Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

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O-MBA28L11

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November 5, 2015

President Rodney Fong and Members of the Planning Commission  
City and County of San Francisco  
1650 Mission Street, Suite 400  
San Francisco, CA 94103

**Re: Warriors Arena Project: Planning Codes section 321 and 305, General Plan  
Inconsistency and CEQA Findings.**

Dear Commission President Fong and Members of the Commission:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project"). The Mission Bay Alliance objects to approval of this Project and certification of the Project SEIR.

**1. The Project is ineligible for any office space allocation under Planning Code section 321 and Motion 17709.**

**a. This Project does not comply with the Design for Development.**

Resolution 14702 and Motion 17709 require that any project in the Alexandria District must comply with the Mission Bay South Design for Development in order to be eligible for any office space allocation. (See Motion 17709, p. 9, Finding 9,<sup>1</sup> Finding 10<sup>2</sup>.)

<sup>1</sup>"This schedule of phased authorization will ensure that, in accord with Resolution 14702, adequate office space can be allocated to those projects within the Development District that are determined to be in compliance with the D for D requirements, while also complying with Section 321 of the Planning Code forbidding exceedance of the square footage available for allocation in any given annual cycle."

<sup>2</sup>"Pursuant to Resolution 14702, the Commission is charged with determining whether a project seeking authorization conforms to applicable standards in the D for D Document, which supersedes the criteria set forth in Section 321 and other provisions of the Code except as provided in the MBS Plan. The projects previously approved were determined to have met the MBS Redevelopment Plan and the D for D Document standards and guidelines, and requirements for childcare, public art, and other provisions of the Plan Documents, and retain

**EXHIBIT 1**



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This Project does not comply with the Design for Development, as evidenced by the many amendments that the Successor Agency made to the Design for Development to accommodate the Project. Therefore, it is ineligible for allocation of any office space under Planning Code section 321 and Motion 17709.

**b. This Project is inconsistent with the Redevelopment Plan.**

A basic premise of the Planning Commission decisions in Resolution 14702 and Motion 17709, and a fundamental rationale for “superseding” section 321’s guidelines in favor of the Redevelopment Plan and Redevelopment Plan documents, were the Commission’s findings that the Redevelopment Plan met standards set in section 321, the San Francisco Master Plan, the priority policies in Planning Code section 101.1, and the requirements of redevelopment law. In short, in order to be eligible for the office space allocation available under motion 17709, the Project must be consistent with the Redevelopment Plan.

This Project is inconsistent with the Redevelopment Plan because, as demonstrated in the November 2, 2015, letter from Susan Brandt-Hawley, my co-counsel for the Alliance (attached as Exhibit 1), this Project is not an allowable secondary use under the Redevelopment Plan. However, in the alternative, as shown in my November 2, 2015, letter (attached as Exhibit 2), if the Project is an allowable secondary use under the Redevelopment Plan, then it requires a variance under section 305 of the Plan before Project approval.

**2. The office space allocation requested for this Project exceeds the amount authorized for the Alexandria District.**

In 1986, San Francisco voters passed Proposition M, a referendum limiting the amount of office space that can be approved each year. Codified as Section 321 of the San Francisco Planning Code, it provides that “[n]o office development may be approved during any approval period if the additional office space in that office development, when added to the additional office space in all other office developments . . . would exceed 950,000 square feet.” (San Francisco Planning Code § 321(a)(1).) Office space is defined to mean “construction . . . of any structure” that has the “effect of creating additional office space.”

The current Project plans call for the construction of two office towers on Mission Bay South Parcels 29 and 31, comprising 309,436 square feet and 267,486 square feet of office space, respectively, for

that design approval, along with all previously imposed conditions of approval. Future projects requesting authorization will be brought before the Commission for design review in accord with Resolution 14702, and upon determination by the Commission that such proposals are in conformity with the D for D and other applicable requirements, office space may be allocated for such new structures from the unassigned amount available in the Development District.”

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a total of 576,922 square feet of office space. (Executive Summary, p. 2.)

In 2008, the Planning Commission adopted Motion No. 17709. Motion 17709 approved a cumulative total office space allocation for all projects within the Alexandria Development District of 1,350,000 gross square feet. (Motion 17709, p. 9, Finding 9.) Of that amount, 1,222,980 was allocated before the adoption of Motion 17709. (Motion 17709, p. 5, Finding 4, Table 1.) Therefore, at the time Motion 17709 was proposed, 227,020 gsf of unallocated office remained for allocation. (Motion 17709, p. 9, Finding 9, Table 4.)

According to Motion 17709, there were three pending projects at that time, at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street. Motion 17709 states that these projects represented 665,880 square feet of “potential office space.” (Motion 17709, p. 5, Finding 5, Table 2.) Motion 17709 also states an intent to authorize only 57% of “potential office space” for actual office space after 10/18/09, 53% of “potential office space” for actual office space after 10/18/10, and 50% of “potential office space” for actual office space after 10/18/11.

Motion 17709 does not state how much actual office space was approved for the three pending projects at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street. The Planning Department’s Office Development Annual Limitation Program record (attached as Exhibit 3) shows “0\*” in the “size” column for these projects. (Exhibit 3, p. 19.) Assuming the Planning Commission allocated office space to these projects at the 57% ratio, that amount is 379,552 gsf (665,880 x .5). **This amount exceeds the remaining office space available for allocation at that time (i.e., 227,020 gsf).**

According to Motion 17709, there were two additional areas where the applicant indicated an intent to develop “potential office space,” namely, MB South Blocks “29 and 31” and “33-34.” (Motion 17709, p. 5, Finding 6, Table 3.) Motion 17709 states that these possible future projects represented 915,700 square feet of “potential office space,” with Blocks “29 and 31” at 515,700 GSF. (Motion 17709, p. 5, Finding 6, Table 3.)

Assuming, again, that the Planning Commission allocated office space to these areas at the 50% ratio, that amount is 457,850 GSF (915,700 x .5), with 257,850 allocated to Blocks “29 and 31” at 257,850 gsf (515,700 x .5).

The Draft Motion proposed for adoption at today’s hearing states that “Blocks 29-32 are included in the Development District and have been allocated a total of 677,020 sf of office space pursuant to Motion No. 17709.” (Draft Motion, p. 3.) This is incorrect in at least four ways.

First, it is unclear and unstated how Planning staff derived the 677,020 gsf number.

Second, after approval of the office space allocation for the three pending projects at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street, there was no office space left in the



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Alexandria District to allocate - as discussed above.

Third, even if one adds together the "potential office space" numbers for Blocks 29-32 in Motion 17709, the sum is 1,119,999 gsf, and 50% of that is only 560,000 gsf. The two office towers proposed for this Project require 576,922 gsf. (See Executive Summary, pp. 1-2: 309,436 gsf in the South tower and 267,486 gsf in the 16<sup>th</sup> Street tower). This number exceeds 560,000 gsf.

Fourth, when one adds the 25,000 gsf for office space in the arena building (see SEIR p. 3-17), the office space for this project totals 601,922 gsf (i.e., 576,922 plus 25,000), which also exceeds 560,000 gsf.

Fifth, to the extent there was any office space left for Motion 17709 to allocate after approval of the office space allocation for the three pending projects at 600 Terry Francois, 650 Terry Francois, and 1450 Owens Street, Motion 17709 allocated only 257,850 gsf to Blocks 29 and 31 (i.e., 50% of 515,700) pursuant to Finding 6, Table 3. **The 576,922 gsf of office space in the two office towers for this Project are located in Blocks 29 and 31; and the total of 576,922 gsf vastly exceeds the 257,850 gsf that may arguably be available.**

Because the office towers called for in the Project exceed the allowable office space cap, Section 321(a)(1) and Motion 17709 require the Planning Commission to deny approval of the Project and of the requested allocations of office space.

**3. General Plan Inconsistency: BAAQMD.**

San Francisco Master Plan Policy 4.1 states:

Support and comply with objectives, policies, and air quality standards of the Bay Area Air Quality Management District.

Regionwide monitoring of air quality and enforcement of air quality standards constitute the primary means of reducing harmful emissions. The conservation of San Francisco's air resource is dependent upon the continuation and strengthening of regional controls over air polluters. San Francisco should do all that is in its power to support the Bay Area Air Quality Management district in its following operations:

- Monitoring both stationary and mobile sources of air pollution within the region and enforcing District regulations for achieving air quality standards.
- Regulating new construction that may significantly impair ambient air quality.
- Maintaining alert, permit, and violations systems.
- Developing more effective controls and method of enforcement, as necessary

The attached letter from the Bay Area Air Quality Management District (Exhibit 4) and the City's response (Exhibit 5) show that this Project does not comply with this policy.

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The Alliance previously commented on the Draft SEIR (Comment AQ-7) that the per ton charge for emission offsets is too low to achieve complete offset of the Project's emissions. The City's response to comments on this point is cagey, but it does suggest what now turns out to be fact - that the BAAQMD agreed with the comment - because the response states:

SF Planning has been in communication with BAAQMD with regard to its suggestion that a higher fee may be warranted to offset project emissions to a less than significant level and found that BAAQMD could not establish that an increased rate beyond that of the Carl Moyer Program plus a five percent administrative fee could meet the "rough proportionality" standard required under CEQA.

(RTC, p. 13.13-67.) The RTC's rationale for contending that a higher offset fee would not meet the "rough proportionality" standard is that offset fees in other areas of the state are not higher than the offset fee proposed in the DSEIR. This is an error of law. The "rough proportionality" requirement requires a comparison of the cost of the mitigation to the degree of severity of the impact. The fees charged in other areas of the state are irrelevant to "rough proportionality."

**4. CEQA Findings: General**

The Commission cannot make any CEQA findings required by CEQA section 21081 or CEQA Guidelines 15091, 15093, 15096(f), because the Project SEIR does not comply with CEQA and is not certifiable, for the reasons described in the Alliance's comments on the SEIR.

**5. CEQA Findings: BAAQMD.**

The Commission cannot find that "Impact AQ-4: Potential conflicts with BAAQMD's 2010 Clean Air Plan" is less than significant with mitigation because the City and Project Sponsor refuse to agree to BAAQMD's offset fees per Mitigation Measure M-AQ-2b. (See Exhibits 4 and 5.) There is also no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible. There are too many unanswered questions regarding Option 2, including lack of assured verification of offsets to ensure their effectiveness, and lack of assurance that offset sources are available in the quantity required. BAAQMD's offset program at least answers some, if not all, of these questions.

The Commission cannot find that all feasible mitigation measures that would substantially reduce "Impact AQ-1: Impacts of Criteria Air Pollutants from Construction" have been adopted as required by CEQA section 21081, because there is no evidence that paying the offset fees demanded by BAAQMD is infeasible. Also, as discussed above, there is no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible; therefore, it is not an adequate substitute for BAAQMD's offset program. This also applies to

- Impact AQ-2: Impacts of Criteria Air Pollutants from Project Operations; Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts;



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- Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts.

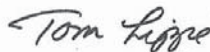
**6. CEQA Findings: Pier 80 Alternate Site.**

The Commission cannot find that feasible alternatives that would substantially reduce the Project's significant impacts have been adopted. The SEIR does not analyze the alternate site proposed by the Alliance near Pier 80, and did not circulate that analysis for public comment. Neither OCII nor this Commission has the basis to make conclusory findings rejecting the alternative. Among the relevant facts not considered in the findings is that the site is three times as large as would be required for the Event Center project and need not utilize any of the City-owned property nor any particular configuration of the privately-owned lots should there be an unwilling seller. There is no evidence provided that the site could not be acquired within a reasonable time period.

Case law confirms that assuring a site's consistency with city plans and zoning is within the City's power. Similarly, the scheduling of transportation services to the site can be increased, and the findings provide no studies to back up conclusory statements regarding traffic, air quality, hydrology, or water quality impacts. Since only a third of the site is needed to accommodate the event center, all of the impacts (if shown to have concern after sufficient technical review) can be avoided or mitigated. As stated in the Alliance letter to OCII that proposes this site for consideration as an alternative, here incorporated by reference, the SEIR failed to consider a potentially-feasible off-site alternative and must be revised and recirculated to do so before findings of infeasibility may be considered or adopted. The site suggested by the Alliance is potentially feasible and deserving of study.

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

\\lgw-12-19-12\lf\Mission Bay\Administrative Proceedings\LOTNL Does\C013a Plan Com re variance, Prop M, GP.wpd

O-MBA28L11

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November 2, 2015

Tiffany Bohee, OCII Executive Director  
c/o Brett Bollinger, San Francisco Planning Department  
via email [warriors@sfgov.org](mailto:warriors@sfgov.org)

Subject: Warriors Event Center & Mixed Use Development  
Inconsistency with Mission Bay South Redevelopment Plan  
'Secondary Use' Classification

Dear Director Bohee and Mr. Bollinger:

The Mission Bay Alliance (the Alliance) contends that the Warriors' Event Center is unlawfully inconsistent with every use allowed by the Mission Bay South Redevelopment Plan (the Plan). Although the Alliance raised this issue in comments on the Draft Subsequent EIR (DSEIR), both the Responses to Comments in the Final SEIR and OCII's findings of project consistency remain materially inadequate.

The Plan designates uses allowed at a 'Commercial Industrial/Retail' site. The Alliance notes that while OCII now concedes that a sports arena is not within the scope of allowed 'principal uses' in that zoning, OCII contends that an arena is consistent with 'secondary uses.' As this letter will explain, all such secondary uses are similarly and demonstrably insufficient to permit the Warriors' sports arena.

**Nighttime Entertainment.** The Initial Study concluded, in error, that the DSEIR did not need to address land use issues — at all. It asserted that the entire Event Center, including the sports arena use, somehow met the secondary 'Nighttime Entertainment' use analyzed in the 1998 Plan EIR. Secondary uses were then generally referenced in the DSEIR (e.g., pp. 3-8, 3-51, 4-5, 5.2-115), but there was no discussion of which category of secondary use would be allocated to the Event Center, inferring acceptance of the Nighttime Entertainment category.

The Plan describes Nighttime Entertainment in terms of small-scale local uses like dance halls, bars, nightclubs, discotheques, nightclubs, private clubs, and

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restaurants. (Plan, p. 50.) At the time of the 1998 EIR, several small neighborhood bars occasionally offered nighttime entertainment, consistent with the secondary use category. Such minor uses were compatible with the 3rd Street Corridor and the waterfront. Clearly, no mammoth regional entertainment venue was anticipated in Mission Bay South and no such use was considered in the 1998 Plan EIR.

And while professional basketball games are held at night, the Event Center also projects 31 annual events "related to conventions, conferences, civic events, corporate events and other gatherings," with an estimated attendance of between 9,000 and 18,500 patrons. "[T]he majority of events are expected to occur during day time hours." Such events are not 'Nighttime Entertainment.'

The Director's currently-proposed findings that the sports arena is 'Nighttime Entertainment' contemplated as a secondary use in the Plan are unsupported. The findings fail to match the scope and impacts of a professional sports venue with the analysis or description of uses in the Plan or in the 1998 EIR. The findings are fatally conclusory; that somehow a professional sports venue would be "similar" to a nightclub or bar use in the 'Nighttime Entertainment' category "because" it will serve alcohol, provide amplified live entertainment, and provide a venue for evening gatherings. The findings fail to address the core inconsistency of a regional sports arena with the intent of the adopted Plan and the Design for Development, which focus on commercial entertainment uses in Mission Bay North to complement the Giants' ballpark.

OCII's reliance on the negative; to wit, that the 'Nighttime Entertainment' secondary use has no specific size limitations, is not enough. The Plan provides for the continued development of Mission Bay South as a walkable urban community intended to facilitate world-class medical and biotechnology development. The Event Center project violates the Plan Area Map carefully designed in classic, walkable Vara Blocks. (Plan, Attachment 2, p. 40.) Neither the Plan nor the Design for Development contemplate any uses comparable in scope or impact to the Event Center as 'Nighttime Entertainment.'

That being said, in fact in the Final SEIR and as reflected in the proposed Plan consistency findings, OCII now implicitly agrees with the Alliance that the 'Nighttime Entertainment' secondary use standing alone does not encompass a sports arena. Now, OCII additionally relies on the Plan's alternate 'secondary uses.' No such uses are consistent with the Plan, as explained below.

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**Recreation Building.** One of the Plan's secondary use categories is for an undefined 'Recreation building.' (Plan, p. 15.) The Plan describes 'Outdoor Recreation' as "an area, not within a building, which is provided *for the recreational uses of patrons* of a commercial establishment." (Plan, p. 50, italics added.)

OCII's proposed findings as to the 'Recreation building' category stretch the regional sports arena use not only beyond what was contemplated by the Plan or studied in the 1998 EIR, but beyond logic. To state the obvious: there is a difference between 'recreation' and 'entertainment.' Both involve enjoyment and leisure, and may involve ancillary eating and drinking, and the Alliance has no quarrel with the Director's reference to recreation as "something people do to relax or have fun; activities done for enjoyment." (OCII Proposed Secondary Use Determination, p. 6.) But myriad dictionary definitions confirm and it cannot readily be denied that 'recreation' is commonly understood to involve one's personal physical activities while 'entertainment' refers to events or performances designed to entertain others.

None of the Plan's various references to 'entertainment' include athletic activities normally considered 'recreation:' Adult Entertainment [bookstore or theater], Amusement Enterprise [video games], Bar [drinking and theater], Theater [movies and performance]. (Plan, Attachment 5, pp. 44-51.) Consistently, the 1998 EIR's discussion of 'recreational' land uses focused in turn on open space, bicycles, parks, and water-based activities. (Mission Bay EIR, Volume IIB, pp. V.M. 15-28.)

In context, the Plan's reference to 'Recreation building' as a secondary use contemplates participatory recreational uses like the 'recreation facilities' referenced in the 1998 Plan EIR for the existing golf driving range and in-line hockey rink, with the expressed expectation that the size of recreational 'facilities' would decrease as redevelopment of the Plan area progressed. (OCII Proposed Secondary Use Determination, p. 6.)

Reliance on the secondary use of 'Recreation building' is unsupported.

**Public Structure or Use of a Nonindustrial Character.** As presented in the Plan, the category of "other secondary uses" labeled 'Public structure or use of a nonindustrial character' references *one* secondary use, not *two*. (Plan, p. 13.) The use is required to be public, and either a structure *or* a use.



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The interpretation urged by the Director is, again, strained beyond the plain words of the Plan. 'Public' is not defined in the Plan and so its common meaning is assumed. But as proposed in the consistency findings, OCII interprets a 'public' use as simply requiring that the public be somehow 'served.' That would encompass every kind of principal and secondary use listed in the Plan, from child care to animal care to hotel, *etc.*, and renders the category meaningless: *i.e.*, "Any use is ok."

Instead, a public structure or use is commonly understood to be under the control and management of a public agency for the benefit of its constituency — such as the University of California<sup>1</sup> or the City of San Francisco. The Plan provides a description of a range of anticipated public improvements in Attachment 4. This list includes both public buildings and public uses. None of the public improvements listed in Attachment 4 include anything like a private professional sports arena.

The Event Center is a private project and is not within the scope of the secondary use category for a public structure or use of a nonindustrial character.

**Director's Findings.** As explained, the sports arena uses that are the impetus for the Event Center project are not allowed by the Plan's allowed principal or secondary uses. An allowed use is prerequisite for a finding of Plan consistency. The Alliance will not belabor the myriad other inconsistencies with the Plan's objectives, design, incompatibility with UCSF, and creation of significant environmental impacts, as those have been described in the DSEIR comments and throughout the administrative record, but hereby objects to their insufficiencies and lack of supporting substantial evidence for the Plan consistency finding.

Consideration of the Event Center project must be preceded by amendment of the Plan to be consistent with the delineated principal and secondary uses and the adopted Plan Area Map of the Mission Bay South Redevelopment Plan.

Thank you.

Sincerely yours,

  
Susan Brandt-Hawley  
Attorney for Mission Bay Alliance

<sup>1</sup> See attached 2005 Resolution and Secondary Use finding regarding the "UCSF hospital" as a "public structure or use of a non-industrial character" for "a public body specifically created by the California Constitution."

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RESOLUTION NO. 176-2005

Adopted November 1, 2005

APPROVING A MEMORANDUM OF UNDERSTANDING WITH THE  
REGENTS OF THE UNIVERSITY OF CALIFORNIA, A CALIFORNIA  
PUBLIC CORPORATION, AND ACKNOWLEDGING THE EXECUTIVE  
DIRECTOR'S FINDINGS OF CONSISTENCY WITH THE MISSION BAY  
SOUTH REDEVELOPMENT PLAN, FOR THE EXPANSION OF UCSF  
FACILITIES IN THE MISSION BAY SOUTH REDEVELOPMENT  
PROJECT AREA; MISSION BAY SOUTH REDEVELOPMENT  
PROJECT AREA

BASIS FOR RESOLUTION

1. On September 17, 1998, by Resolution No. 193-98, the Redevelopment Agency of the City and County of San Francisco's (the "Agency") Commission (the "Agency Commission") conditionally approved the Mission Bay South Owner Participation Agreement (the "South OPA") and related documents between Catellus Development Corporation (the "Owner") and the Agency for development in the Mission Bay South Redevelopment Project Area (the "Project Area").
2. On November 2, 1998, the Board of Supervisors of the City and County of San Francisco (the "Board") by Ordinance No. 335-98 approved and adopted the Redevelopment Plan for the Mission Bay South Redevelopment Project Area (the "Plan"). The Board's adoption of the Plan satisfied the conditions to the effectiveness of Agency Resolution No. 193-98.
3. On November 16, 1998, the Agency entered into the South OPA with the Owner. The South OPA sets forth phasing principles that govern the development of property in the Project Area. Those principles include the Owner's obligations to deliver to the Agency affordable housing sites as market rate housing is built in the Project Area. They also include the Owner's commitments to construct public open space and other public infrastructure adjacent to -- or otherwise triggered by -- development on any of the private parcels governed by the South OPA.
4. Under the South OPA and the related Mission Bay South Tax Increment Allocation Pledge Agreement (the "Pledge Agreement"), dated as of November 16, 1998, between the Agency and the City and County of San Francisco (the "City"), approximately 20% of the total property tax increment (plus certain excess tax increment) generated by development in the Project Area is contractually dedicated to develop affordable housing units on parcels that the Owner will contribute to the Agency, to achieve the affordable housing program contemplated by the Plan.



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5. The South OPA requires the Owner to construct the public infrastructure directly related to each of the major phases in accordance with the incremental build-out of each project. Under the South OPA and the Pledge Agreement, the Agency is obligated to fund, repay or reimburse the Owner, subject to certain conditions, for the direct and indirect costs of constructing the infrastructure. The Agency has established a Community Facilities District ("CFD") for infrastructure in the Project Area. The Agency has also established a separate CFD to pay the costs of maintaining the public open space in the Project Area.
6. The South OPA provides that as a condition to any transfer of property in the Project Area, the Owner must obtain the agreement of the transferee to assume all of Owner's obligations under the South OPA with respect to the transferred parcels.
7. The Project Area includes an approximately 43-acre biomedical research and educational campus site (the "Campus Site") for the University of California, San Francisco ("UCSF"). UCSF has already invested about \$675 million on projects completed or underway on the Campus Site within the Plan Area and has plans to invest another \$225 million on projects in design.
8. The Regents of the University of California, a California public corporation ("The Regents") wishes to lease or acquire, and the Owner wishes to transfer Parcels 36, 37, 38 and 39 in the Project Area, comprising approximately 9.65 acres of land for the possible expansion of UCSF in Mission Bay (the "Expansion Parcels"). These parcels are not part of the 43 acres that the Plan originally designated as the Campus Site.
9. On November 30, 2004, The Regents released proposed amendments in draft form to its long range development plan, as LRDP Amendment #2. Those amendments contemplate an expansion of UCSF facilities onto the Expansion Parcels, including the possibility of developing by 2012 new integrated specialty Children's, Women's and Cancer hospitals containing about 210 beds, together with ambulatory and research facilities. In March 2005, The Regents approved LRDP Amendment #2 (the "Project") and certified a related final environmental impact report (the "LRDP #2 FEIR") which analyzed the environmental effects of the proposed UCSF development on the Expansion Parcels. Copies of the LRDP #2 FEIR are on file with the Agency Secretary.
10. The Owner and The Regents have entered into an Option Agreement and Grant of Option to Lease, dated as of January 1, 2005 (the "Option to Lease"), which provides that upon the satisfaction of certain conditions and the exercise by The Regents of its option (i) Catellus, as landlord, and The Regents, as tenant, will enter into a long-term ground lease of the Expansion Parcels (the "Lease") and (ii) the Owner and The Regents will at the same time enter into an Option Agreement and Grant of Option to Purchase (the

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- "Option to Purchase") under which The Regents will have an option to purchase the Expansion Parcels.
11. If The Regents exercises the Option to Lease within the option term, the Lease would allow for The Regents to develop up to 1,020,000 leasable square feet on the Expansion Parcels, provided that (a) any development of those parcels is the subject of further environmental review under the California Environmental Quality Act ("CEQA"), and (b) the Owner does not lose any of its entitled development potential for the balance of its land nor lose any of its other rights and privileges under the South OPA.
  12. Pursuant to Section 302 of the Plan, the development of the contemplated UCSF facilities on the Expansion Parcels is permitted as a subset of "Other Uses" as a secondary use. Such secondary uses are permitted provided that such use generally conforms with redevelopment objectives and planning and design controls established pursuant to the Plan and based on certain findings of consistency by the Agency's Executive Director (the "Consistency Findings"). The Executive Director has made the Consistency Findings, and such findings are hereby incorporated herein by this reference as if fully set forth.
  13. The City must make substantial improvements to San Francisco General Hospital ("SFGH") by 2013 and is evaluating a number of alternatives, including rebuilding on site and co-locating a new SFGH with new UCSF medical facilities in Mission Bay.
  14. As a State agency, The Regents is exempt under the State Constitution from local land use regulation and property taxes to the extent it uses property exclusively in furtherance of its educational mission.
  15. The Agency, City and The Regents negotiated a non-binding term sheet to guide the preparation of final transactional and related documents, such as a Disposition and Development Agreement ("DDA") for The Regents to acquire property for, and to construct and subsidize, affordable housing for low-income workers of UCSF, which DDA is being considered by the Agency Commission concurrently with this Resolution, pursuant to Resolution No. 160-2005, and provided terms for a Memorandum of Understanding regarding design standards and cooperation on the development of the Expansion Parcels (the "MOU"). The Agency Commission approved the non-binding term sheet on May 17, 2005 by Resolution No. 81-2005.
  16. The proposed MOU addresses, among other things: the potential loss of tax increment from the transfer of the Expansion Parcels to a tax-exempt entity; the obligations to build infrastructure associated with development on the Expansion Parcels; the potential assistance of UCSF in the planning of the co-location, if any, of SFGH with the new UCSF facilities; the standards for design review for construction on the Expansion Parcels; local hiring and



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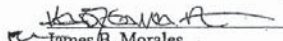
equal opportunity for jobs associated with the development on the Expansion Parcels; and other matters designed to provide the Agency and City with significant public benefits.

17. Agency staff is recommending that the Agency Commission approve the MOU, and the associated Consistency Findings.
18. The Agency Commission has reviewed and considered the information contained in the LRDP #2 FEIR.
19. The Agency Commission hereby finds that the MOU is an action in furtherance of the implementation of the Project for purposes of compliance with CEQA.
20. By Resolution 175-2005, the Agency Commission adopted environmental findings related to the LRDP #2 FEIR, pursuant to CEQA and the CEQA Guidelines (the "Findings"). Such Findings are made pursuant to the Agency's role as the responsible agency under CEQA for the Project. The Findings are hereby incorporated herein by this reference as if fully set forth.

#### RESOLUTION

ACCORDINGLY, IT IS RESOLVED by the Redevelopment Agency of the City and County of San Francisco that the findings of consistency with the Mission Bay South Redevelopment Plan are approved and the Executive Director is authorized to execute the "Expansion of UCSF Facilities in Mission Bay South Redevelopment Project Area (Blocks 36-39) Memorandum of Understanding", substantially in the form lodged with the Agency General Counsel; Mission Bay South Redevelopment Project Area.

#### APPROVED AS TO FORM:

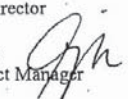
  
James B. Morales  
Agency General Counsel

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#### MEMORANDUM

126-03405-001  
October 12, 2005

To: Marcia Rosen  
Executive Director

From: Amy Neches   
Senior Project Manager

Re: Secondary Use Finding Recommendation for UCSF Hospital in Mission Bay South Redevelopment Area

Pursuant to a Term Sheet dated as of August 1, 2005 between the City, the Agency and The Regents of the University of California, which was endorsed by the Commission on May 17, 2005 (Resolution No. 81-2005), the Agency is considering agreements, including a Memorandum of Understanding ("MOU"), under which the University of California at San Francisco ("UCSF") may develop a hospital in the Mission Bay South Redevelopment Area ("Redevelopment Area").

The UCSF hospital would be located on Blocks 36-39 within the Commercial Industrial land use district of the Redevelopment Area, as described in the Mission Bay South Redevelopment Plan (the "Plan"). The UCSF hospital development may also include all or portions of Block X3 within the Commercial Industrial/Retail land use district. In both of these land use districts "public structure or use of a non-industrial character" is permitted as a subset of "Other Uses" as a secondary use.

The University of California, of which UCSF is a component, is a public body specifically created by the California Constitution. A hospital or medical center is described in §790.44 of the San Francisco Planning Code as a "public or private institutional use which provides medical facilities for inpatient care, medical offices, clinics, and laboratories." The proposed UCSF hospital development will include these components. The hospital will not including manufacturing, warehousing, or distribution of goods, and can reasonably be considered a "non-industrial use." This interpretation is supported by the San Francisco Planning Code, under which hospitals are permitted as a conditional use in all C districts and NC-3 districts.

Section 302 of the Plan provides as follows:

"Secondary uses shall be permitted in a particular land use district...provided that such use generally conforms with redevelopment objectives and planning and design controls established pursuant to this Plan and is determined by the Executive Director to make a positive contribution to the character of the Plan Area, based on



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a finding of consistency with the following criteria: the secondary use, at the size and intensity contemplated and at the proposed location, will provide a development that is necessary or desirable for, and compatible with, the neighborhood or the community."

Staff believes that the UCSF hospital is appropriate as a secondary use, based on the following:

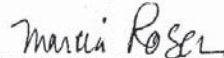
- 1) The proposed hospital will be located on approximately 10 to 14 acres of land adjacent to the Mission Bay UCSF research campus that have been determined to be blighted and are affected by environmental contamination. UCSF plans close integration of its basic academic research activities with the teaching, research and patient care activities within the planned hospital. The plan for development of the UCSF hospital generally conforms to the Redevelopment Project Objectives as described in §103 of the Plan, particularly with objective A of eliminating blight and correcting environmental deficiencies, and objective B of retaining and promoting UCSF's research and academic activities within the City and County of San Francisco.
- 2) Under the MOU, the UCSF hospital development will generally conform to the planning and design controls established pursuant to the Plan, including the street layout, setbacks, and streetscape plan. To accommodate the needs of the hospital, the MOU will include specific adjustments to the existing height and bulk standards of the Commercial Industrial and Commercial Industrial/Retail land use zones of the Mission Bay South Design for Development. These changes will lower the maximum height of a hospital to 105 feet, compared to the existing 160 foot limit, but would allow for somewhat greater bulk in the mid-rise area. These changes have been studied and presented to the public at two well-noticed public meetings. In staff's opinion, the proposed adjustments represent reasonable variation from the existing standards, which will have little if any negative effect on the surrounding community in the context of overall Mission Bay development.
- 3) The hospital will contain no more development, as calculated under the Plan in leasable square feet, than would have been permitted under the principal uses permitted in these land use districts, and there will be no net increase in the overall size of development within the Redevelopment Area. The hospital will be developed on parcels that would otherwise likely have been developed with commercial office or life science/biotechnology uses. These uses would have been constructed in buildings of reasonably similar size and appearance as the proposed hospital use.
- 4) The proposed hospital will allow UCSF to continue to provide needed tertiary health care to the residents of San Francisco in a modern seismically safe hospital, and will assist UCSF in furthering its research and academic mission.

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Based on these factors, staff believes that it is appropriate to make the finding of consistency cited above, and recommends that the Executive Director permit the development of the UCSF hospital as a secondary use in Mission Bay, subject to the approval of the MOU by the Commission.

Approved on October 12, 2005:

  
Marcia Rosen  
Executive Director



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By personal delivery at Nov. 3, 2015, hearing to:	By email to: <a href="mailto:warriors@sfgov.org">warriors@sfgov.org</a> :
Commission on Community Investment and Infrastructure Attn: Claudia Guerra, Commission Secretary Office of Community Investment and Infrastructure 1 South Van Ness Avenue, 5th Floor San Francisco, CA 94103 and email to: <a href="mailto:claudia.guerra@sfgov.org">claudia.guerra@sfgov.org</a>	Ms Tiffany Bohee OCII Executive Director c/o Mr. Brett Bollinger San Francisco Planning Department 1650 Mission Street, Suite 400 San Francisco, CA 94103

**Re: Warriors Arena Project: Violation of Variance Requirement.**

Dear Ms Bohee and Mr. Bollinger:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project"). The Mission Bay Alliance objects to approval of this Project and certification of the Project SEIR.

I write today regarding the OCII's failure to require a variance or "variation" for this Project under section 305 of the Mission Bay South Redevelopment Plan ("Plan"). The November 2, 2015, letter from Susan Brandt-Hawley, my co-counsel for the Alliance, demonstrates this Project is not an allowable secondary use under the Plan. Thus, a variance is not available because, as shown by Brandt-Hawley, the Project "will change the land uses on this Plan." (Plan, § 305.) However, in the alternative, if the Project is an allowable secondary use under the Plan, then the OCII must process this Project application as a variance and make the findings required by Plan section 305 before Project approval.

Both California and San Francisco planning law provide a process for landowners to obtain a "variance" from the "uniformity" of zoning limits that, while appropriate for the zone district in general, would impose undue hardship due to unique characteristics of a specific parcel. Government Code section 65906 governs the grant of zoning variances by municipalities and prohibits local agencies from granting "special privileges" to individual landowners. Similarly, San

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Francisco Planning Code, section 305, subdivision (a), provides that a variance permit must be approved for any exception to the requirements of the Planning Code. Subdivision (c) thereof mirrors the requirements of state law, and requires a finding that "owing to such exceptional or extraordinary circumstances the literal enforcement of specified provisions of this Code would result in practical difficulty or unnecessary hardship ...."

Similarly, the Plan includes a variance provision that reflects the same substantive requirements as Government Code section 65906 and Planning Code section 305:

The Agency may modify the land use controls in this Plan where, owing to unusual and special conditions, enforcement would result in undue hardships or would constitute an unreasonable limitation beyond the intent and purposes of these provisions. Upon written request for variation from the Plan's land use provisions from the owner of the property, which states fully the grounds of the application and the facts pertaining thereto, and upon its own further investigation, the Agency may, in its sole discretion, grant such variation from the requirements and limitations of this Plan. The Agency shall find and determine that the variation results in substantial compliance with the intent and purpose of this Plan, provided that in no instance will any variation be granted that will change the land uses on this Plan.

(Plan, § 305.)

Because the Plan's variance provision imposes virtually identical requirements as Planning Code section 305, both apply. (Plan, §'s 101 ["Regardless of any future action by the City or the Agency, whether by ordinance, resolution, initiative or otherwise, the rules, regulations, and official policies applicable to and governing the overall design, construction, fees, use or other aspect of development of the Plan Area shall be (i) this Plan and the other applicable Plan Documents, (ii) to the extent not inconsistent therewith or not superseded by this Plan, the Existing City Regulations and (iii) any new or changed City Regulations permitted under this Plan"]; 304.9.C.(iv)).

Here, the Project creates at least sixteen inconsistencies with the Design for Development (D4D). The OCII now proposes to amend the D4D, the Owner's Participation Agreement (OPA), and other Plan documents to resolve these inconsistencies by, including but not limited to, raising maximum height limits from 90 to 135 feet, allowing a second 160+ foot tower, increasing bulk limits to accommodate the arena, and changing arena setbacks, street wall heights, view corridors, public rights of way, and parking standards. (See e.g., Draft SEIR, pp. 4-7 - 4-9, § 4.2.4; Proposed Resolution 2015, exhibit A; Memorandum to the OCII from Executive Director Tiffany Bohee for Items 5(a), 5(b), 5(c), 5(d) & 5(e) the November 3, 2015, CCII meeting agenda, pp. 4, 22.)

Even if the Project's land uses are allowable secondary uses, these amendments "modify the land use controls in this Plan" as provided in Plan section 305. But the Project Sponsor has made



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no showing that due to "unusual and special conditions, enforcement would result in undue hardships or would constitute an unreasonable limitation beyond the intent and purposes of these provisions." (Plan, § 305.)

"Variances are, in effect, constitutional safety valves to permit administrative adjustments when application of a general regulation would be confiscatory or produce unique injury." (Curtin's California Land Use and Planning Law, p. 55.) Variance requirements also implement the State Planning and Zoning Law's requirement of "uniformity" of zoning rules within zoning districts. (See Gov. Code, § 65852 ["All such [zoning] regulations shall be uniform for each class or kind of building or use of land throughout each zone, but the regulation in one type of zone may differ from those in other types of zones;" *Neighbors in Support of Appropriate Land Use v. Cnty. of Tuolumne* (2007) 157 Cal.App.4th 997, 1008 (*Neighbors*).) The State Planning and Zoning Law also requires vertical consistency between local agencies general plans, zoning ordinances, and land use permits. (Gov. Code, § 65860, subd. (c) ["County or city zoning ordinances shall be consistent with the general plan of the county or city..."]; see *DeVita v. Cnty. of Napa* (1995) 9 Cal.4th 763, 772 ["A general plan is a 'constitution' for future development [citation omitted] located at the top of 'the hierarchy of local government law regulating land use'"].)

California courts have vigorously enforced the requirements for granting a variance, and have developed extensive jurisprudence to corral the many stratagems local agencies have used to avoid its requirements. (See e.g., *Topanga Association v. County of Los Angeles* (1974) 11 Cal.3d 506, 511-12 (*Topanga*); *Orinda Assn. v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1166 (*Orinda Assn*) ["A zoning scheme, after all, is similar in some respects to a contract ... If the interest of these parties in preventing unjustified variance awards for neighboring land is not sufficiently protected, the consequence will be subversion of the critical reciprocity upon which zoning regulation rests..."].)

Variance findings must focus on a comparison of the subject property to other properties in the zone district with which the variance is intended to bring it into parity, and the benefits to the community or "public interest" associated with a zoning exception are irrelevant. (*Orinda Assn. supra*, at p. 1166.) By amending the Plan documents to accommodate this Project, the OCII would cast these requirements aside and grant a "special privilege" to this Project Sponsor.

In *Neighbors*, rather than adopt a rezone or grant a variance, the County created a special exception to the zoning ordinance for one landowner by including it in a development agreement adopted under the development agreement law. (*Neighbors, supra*, 157 Cal.App.4th at p. 1003.) In rejecting this stratagem, the Court in *Neighbors* noted that there are limits on the power to rezone: "The foundations of zoning would be undermined, however, if local governments could grant favored treatment to some owners on a purely ad hoc basis ... [R]ezoning, even of the smallest parcels, still necessarily respects the principle of uniformity." (*Id.* at pp. 1009-10.)

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A similar result occurred in *Trancas Prop. Owners Assn. v. City of Malibu* (2006) 138 Cal.App.4th 172 (*Trancas*). In *Trancas*, the court held an exemption from a city's zoning requirements accomplished by contract functionally resembled a variance, and held that "such departures from standard zoning by law require administrative proceedings, including public hearings ... followed by findings for which the instant [density] exemption might not qualify... Both the substantive qualifications and the procedural means for a variance discharge public interests. Circumvention of them by contract is impermissible." (*Id.* at p. 182.)

In sum, the OCII's proposed grant of zoning exceptions to this Project by way of amending the Plan documents rather than by variance violates the Plan, the variance requirements of the San Francisco Planning Code and state law, and the uniformity requirement of state law.

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

\\Lgw-12-19-12\lf\Mission Bay\Administrative Proceedings\LOTNL Docs\C012b OCII re variance.wpd



O-MBA28L11

Office Development Annual Limitation ("Annual Limit") Program

The Office Development Annual Limit (Annual Limit) Program became effective in 1985 with the adoption of the Downtown Plan Amendments to the Planning Code (Sections 320-325) and was subsequently amended by Propositions M (1986) and C (1987). The Program defines and regulates the allocation of any office development project that exceeds 25,000 gross square feet (gsf) in area.

A total of 950,000 gsf of office development potential becomes available for allocation in each approval period, which begins on October 17th every year. Of the total new available space, 75,000 gsf is reserved for Small Allocation projects (projects with between 25,000 and 49,999 gsf of office space), and the remaining 875,000 gsf is available for Large Allocation projects (projects with at least 50,000 gsf of office space). Any available office space not allocated in a given year is carried over to subsequent years.

This document reflects the status of the Annual Limit Program, including current availability and summaries of previously approved and pending projects.

Information in this document was last updated on September 1, 2015. Inquiries should be directed to Corey Teague at (415) 575-9081 or corey.teague@sfgov.org.

Summary of Key Figures

	Current Availability	Pending Availability	Pipeline Availability
<b>Small Allocation Projects</b> (<50,000 gsf of office space)	1,188,805 gsf Current total square footage available for allocation.	993,255 gsf Currently available square footage less 285,550 gsf of pending* projects.	776,280 gsf Currently available square footage less 285,550 gsf of pending* projects and 126,975 gsf of pre-application** projects.
<b>Large Allocation Projects</b> (≥50,000 gsf of office space)	1,429,763 gsf Current total square footage available for allocation.	1,678,791 gsf Currently available square footage less 3,108,554 gsf of pending* projects.	8,529,408 gsf Currently available square footage less 3,108,554 gsf of pending* projects and 6,850,617 gsf of pre-application** projects.

\* A 'pending project' is one for which an office allocation application has been submitted but not yet acted upon.

\*\* A 'pre-application' project is one for which an environmental review application, preliminary project assessment application, or other similar application has been submitted but for which no office allocation application has yet been submitted.

EXHIBIT 3

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O-MBA28L11

PENDING OFFICE PROJECTS\*

\*Projects that have submitted an application (B or OFA) pursuant to Planning Code Section 321 (Office Development Annual Limit) but on which no Commission action has yet occurred.

Small Office Cap	Case No.	Address	Sq. Ft.	Status	Staff	Comments
	2009.0065	3433 Third Street	48,229	B filed 1/27/09	Julian Banales	New 5-story office building for Carpenter's Union on vacant lot. May be cancelled due to inactivity (2/18/14).
	2014.0567	2101 Mission Street	48,660	B filed on 4/17/14	Brittany Bendix	Legalize change of use from retail and warehouse to office. Planning Commission hearing scheduled for 9/3/15.
	2012.1410	77-85 Federal Street	49,730	B filed on 6/5/14	Scott MacPherson	Demo two existing office buildings and construct a 6-story building with ground floor retail and office above.
	2015-000509	1125 Mission Street	37,944	B filed on 1/15/15	Julian Banales	Change of use from auto repair.
	2014.1315	135 Townsend Street	48,995	B filed on 3/11/15	Rich Sucre	Conversion of existing self storage building.
	2013.1511	360 Spear Street (aka 100 Harrison St)	49,992	B filed on 4/3/15	Rich Sucre	Partial conversion of existing ISE.
<b>Subtotal</b>			<b>285,550</b>			

Large Office	Case No.	Address	Sq. Ft.	Status	Staff	Comments
	2012.0640	598 Brannan Street	700,456	B filed on 10/24/12	Elizabeth Purl	Demo of 2 industrial buildings; 2 new office buildings (Central SoMa Project).
	2013.1545	645 Harrison Street	99,698	B filed on 7/18/13	Kimberly Durand	LoD confirmed 14,520gsf as existing legal office space. Revised proposal to convert additional 99,698gsf, plus retain 33,758gsf of PDR on first and second floors.
	2013.1593	2 Henry Adams	245,697	B filed on 2/6/14	Rich Sucre	Owner-initiated Article 10 Landmark designation and an Office Allocation. Eligible area limited by recent legislation.
	2011.0409	925 Mission Street	803,300	B filed on 8/19/14	Kevin Guy	"5M" Project. Planning Commission informational hearing scheduled for 9/3/15.
	2006.1523	50 First Street	1,050,000	B filed on 6/4/14	Kevin Guy	Demo and construction of a mixed-use building with two towers.
	2014-002701	GSW Development	0	B filed on 12/12/14	David Winslow	Design approval only. Allocation already approved in Alexandria District.
	2014.1063	633 Folsom Street	89,804	B filed on 12/23/14	Mark Luellen	Four story office addition to existing seven story building.
	2014.0154	1800 Mission Street	119,599	OFA filed on 1/27/15	Rich Sucre	Conversion in the Armory.
<b>Subtotal</b>			<b>3,108,554</b>			

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# PRE-APPLICATION OFFICE PROJECTS\*

O-MBA28L11

\*Projects that have submitted for initial Department review (e.g. environmental review (EE) or Preliminary Project Assessment (PPA)), but have not submitted an application pursuant to Planning Code Section 321 (Office Development Annual Limit).

Small Office Cap					
Case No.	Address	Sq. Ft.	Status	Staff	Comments
2014.1616	1200 Van Ness Ave	27,000	PPA issued 1/14/15.	Mary Woods	Exact office square footage TBD.
2015-010219	462 Bryant Street	49,995	PPA filed on 8/12/15.		An existing single story office building and basement will remain, and five stories of new office space will be added (approximately 49,995 sqf of new office space).
2015-010374	598 Bryant Street	49,980	PPA filed on 8/12/15.	Kansai Uchida	Demo existing gas station and construct a 9-story mixed-use office building with underground parking.
Subtotal		126,975			

Large Office Cap					
Case No.	Address	Sq. Ft.	Status	Staff	Comments
2005.0759	725-735 Harrison	730,940	PPA letter issued 5/16/2013. Revised EE pending.	Debra Dwyer	"Harrison Gardens" (Central SoMa Project). Original proposal changed to office per 2/21/13 application amendment.
2014.0416	610-620 Brannan Street	561,065	EE filed 6/19/14	Elizabeth Purl	Demo and new 11-story mixed use bldg (Central SoMa Project).
2013.0478	559 6th Street	123,972	PPA issued on 6/17/13. PPA expired on 12/17/14.	Kimia Haddadan	Demolish 3 bldgs and construct a mixed-use project (Central SoMa Project).
2013.0970	Pier 70 (Forest City Only)	1,810,000	EE filed on 11/10/14	Andrea Contreras	SF Port project.
	2525 16th Street	80,880	Legalization request filed 11/30/12	Corey Teague	EN Legalization
2014.0858	565-585 Bryant Street	188,280	PPA issued on 7/25/14	Jeremy Shaw	Demo four existing bldgs and construct an 11-story mixed-use bldg. 2nd PPA proposes only 46,990sqf of office (Central SoMa Project).
2014.0405	330 Townsend Street	394,300	PPA issued on 5/15/14	Steve Wertheim	Demo existing bldg and construct a 21-story office bldg. 2nd PPA proposes only 212,300sqf of office (Central SoMa Project).
2013.0208	SWL 337 ("Mission Rock")	1,300,000	EE filed on 6/4/13	Josh Switzky	Large mixed-use project on Port property.
2015-004256	630-698 Brannan St	1,512,260	PPA issued on 7/24/15. EE filed 7/24/15.	Lisa Chen	Flower Mart replacement project (Central SoMa Project). Two Previous PPAs. 2015-001903 analysed proposed 1,482,450sqf. 2013.0370 was under different ownership, only included Lot 5, and analysed 655,150sqf.

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2014.1208	1500 Mission Street	0	EE filed on 10/23/14	Chelsea Fortham	Demo and new construction of mixed use bldg with 462,800sqf of City office space.
2015-009704	505 Brannan Street	168,820	PPA filed on 7/27/15	Steve Wertheim	"Phase II" addition (165', 11 stories) of office space onto an approved 85' "Phase I" office building approved by the Planning Commission on 12/11/14. With this newly planned addition, total building height would now be 250' and contain a total of 306,266 sf.
Subtotal		6,850,617			

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O-MBA28L11

ANNUAL LIMIT FOR "SMALL" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,188,805

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Small" Office Annual Limit	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
1985-1986	0	75,000	75,000	No Projects	N/A	0	0	
1986-1987	75,000	75,000	150,000	1199 Bush	1985.244	46,645	46,645	
1987-1988	103,305	75,000	178,355	3235-18th Street	1988.549	45,350	45,350	aka 2189 Harrison Street
1988-1989	133,005	75,000	208,005	2601 Mariposa	1988.568	49,850	49,850	
1989-1990	158,155	75,000	233,155	No Projects	N/A	0	0	
1990-1991	233,155	75,000	308,155	No Projects	N/A	0	0	
1991-1992	308,155	75,000	383,155	1075 Front	1990.568	32,000	32,000	
1992-1993	351,155	75,000	426,155	No Projects	N/A	0	0	
1993-1994	426,155	75,000	501,155	No Projects	N/A	0	0	
1994-1995	501,155	75,000	576,155	No Projects	N/A	0	0	
1995-1996	576,155	75,000	651,155	No Projects	N/A	0	0	
1996-1997	651,155	75,000	726,155	No Projects	N/A	0	0	
1997-1998	726,155	75,000	801,155	No Projects	N/A	0	0	
1998-1999	801,155	75,000	876,155	1301 Sansome	1998.362	31,606	31,606	
1999-2000	844,549	75,000	919,549	435 Pacific	1998.369	32,500		
				2801 Leavenworth	2003.459	40,000		
				215 Fremont	1998.491	47,950		
				845 Market	1998.090	49,100	169,550	
2000-2001	749,999	75,000	824,999	530 Folsom	2000.987	45,944		
				35 Stanford	2000.1162	48,000		
				2800 Leavenworth	2000.774	34,945		
				500 Pine	2000.539	44,450	173,339	See also 350 Bush Street - Large
2001-2002	651,660	75,000	726,660	No Projects	N/A	0	0	
2002-2003	726,660	75,000	801,660	501 Folsom	2002.6223	32,000	32,000	
2003-2004	769,660	75,000	844,660	No Projects	N/A	0	0	
2004-2005	844,660	75,000	919,660	185 Berry Street	2005.0106	49,000	49,000	
2005-2006	870,660	75,000	945,660	No Projects	N/A	0	0	
2006-2007	945,660	75,000	1,020,660	No Projects	N/A	0	0	
2007-2008	1,020,660	75,000	1,095,660	654 Minnesota	no case number	43,939	0	UCSF
2008-2009	1,095,660	75,000	1,170,660	No Projects	N/A	0	0	
2009-2010	1,170,660	75,000	1,245,660	690 Alabama Street	2009.0847	39,691	39,691	
2010-2011	1,205,969	75,000	1,280,969	No Projects	N/A	0	0	
2011-2012	1,280,969	75,000	1,355,969	208 Utah / 201 Potrero	2011.0468	48,732		EN Legitimization

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O-MBA28L11

ANNUAL LIMIT FOR "SMALL" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,188,805

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Small" Office Annual Limit	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
				808 Brannan Street	2012.0014	43,881		EN Legitimization
				275 Brannan Street	2011.1410	48,500		
				385 7th/10th Harrison	2011.1049	42,039		EN Legitimization
				375 Alabama Street	2012.0128	48,189	231,341	EN Legitimization
2012-2013	1,124,628	75,000	1,199,628	No Projects	N/A	0	0	
2013-2014	1,199,628	75,000	1,274,628	3130 20th Street	2013.0992	32,081		
				660 3rd Street	2013.0627	40,000	72,081	
2014-2015	1,202,547	75,000	1,277,547	340 Bryant Street	2013.1600	47,536		
				101 Townsend Street	2014-002385	41,206	88,742	
				<b>Total</b>		<b>1,165,134</b>		

<sup>1</sup> Each approval period begins on October 17

<sup>2</sup> Carried over from previous year

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O-MBA28L11

ANNUAL LIMIT FOR "LARGE" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,429,763

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Large" Office Annual Limit <sup>3</sup>	Reduction per Section 321.1	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
1985-1986	0	875,000	(475,000)	400,000	No Projects	N/A	0	0	
1986-1987	400,000	875,000	(475,000)	800,000	600 California	1986.085	318,030		
					235 Pine	1984.432	147,500		
					343 Sansome	1985.078	160,449	425,979	
1987-1988	174,021	875,000	(475,000)	574,021	No Projects	N/A	0	0	
1988-1989	574,021	875,000	(475,000)	974,021	No Projects	N/A	0	0	
1989-1990	974,021	875,000	(475,000)	1,374,021	150 California	1987.613	195,503	195,503	
1990-1991	1,178,518	875,000	(475,000)	1,578,518	No Projects	N/A	0	0	
1991-1992	1,578,518	875,000	(475,000)	1,578,518	300 Howard	1989.569	382,582	382,582	aka 199 Fremont Street
1992-1993	1,595,936	875,000	(475,000)	1,995,936	No Projects	N/A	0	0	
1993-1994	1,995,936	875,000	(475,000)	2,395,936	No Projects	N/A	0	0	
1994-1995	2,395,936	875,000	(475,000)	2,795,936	No Projects	N/A	0	0	
1995-1996	2,795,936	875,000	(475,000)	3,195,936	No Projects	N/A	0	0	
1996-1997	3,195,936	875,000	(475,000)	3,595,936	107 Second	1997.484	368,820	368,820	
1997-1998	3,227,156	875,000	(37,582)	4,064,554	55 Second Street	1997.215	283,301		aka One Second Street
					244-256 Front	1996.643	58,650		aka 275 Sarmiento Street
					650 Townsend	1997.787	269,680		aka 699-68th Street
					455 Golden Gate	1997.478	420,000		State office building - see aka Case No. 1993.707
					345 Battery	1997.674	52,715		
					475 Brannan	1997.470	61,000		
					250 Stewart	1998.144	540,000	1,685,346	aka 2 Folsom/250 Embarcadero
1998-1999	2,379,208	875,000	0	3,254,208	One Market	1998.135	61,822		
					Pier One	1998.645	88,350		Port office building
					554 Mission	1998.321	645,000		aka 560/554 Mission Street
					700 Seventh	1999.187	273,650		aka 625 Townsend Street
					475 Brannan	1999.566	2,500	1,061,322	addition to previous approval - 1997.478
1999-2000	2,192,886	875,000	0	3,067,886	670 Second	1999.106	60,000		
					180 King	1999.027	176,000		
					350 Rhode Island	1999.714	250,000		
					First & Howard	1998.902	854,000		First & Howard bldg #2 (405 Howard), #3 (505-525 Howard) & #4 (500 Howard)
					235 Second	1999.178	180,000		
					600 Terry Francois	2000.127	280,000		Mission Bay 26a
					550 Terry Francois	2000.329	225,004		Mission Bay 2b
					899 Howard	1999.583	153,500	2,175,504	
2000-2001	689,382	875,000	0	1,764,382	First & Howard	1998.902	250,000		First & Howard bldg #1 (400 Howard)
					550 Terry Francois	2000.1293	80,150	355,150	Additional allocation (see also 2000.329)
2001-2002	1,409,232	875,000	0	2,284,232	350 Bush	2000.541	344,500		See also 500 Pine Street - Small
					38-44 Tehama	2001.0444	75,000		

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O-MBA28L11

ANNUAL LIMIT FOR "LARGE" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,429,763

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Large" Office Annual Limit <sup>3</sup>	Reduction per Section 321.1	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
					235 Second	2000.319	64,000		modify 1999.176
					250 Brannan	2001.0689	113,540		
					555 Mission	2001.0798	549,000		
					1700 Owens	2002.0300	0*	1,148,640	Alexandria District - West Campus (155,100)
2002-2003	1,138,190	875,000	0	2,013,192	7th & Mission GSA	No Case	514,727	514,727	Federal Building
2003-2004	1,498,405	875,000	0	2,373,405	Presidio Dig Arts	No Case	839,301	839,301	Presidio Trust
2004-2005	1,534,164	875,000	0	2,409,164	No Projects	N/A	0	0	
2005-2006	2,409,164	875,000	0	3,284,164	201 16th Street	2005.0384	430,000	430,000	aka 1409/1499 Blinets
2006-2007	2,854,164	875,000	0	3,729,164	1500 Owens	2006.1212	0*		Alexandria District - West Campus (155,500)
					1600 Owens	2006.1216	0*		Alexandria District - West Campus (228,000)
					1455 Third Street/455 Mission Bay South Blvd/450 South Street	2006.1509	0*		Alexandria District - North Campus (373,487)
					1515 Third Street	2006.1536	0*		Alexandria District - North Campus (262,893)
					660 Townsend	2005.1062	375,151		
					120 Howard	2006.0616	67,931		
					635 Mission	2006.1273	293,750	736,632	
					150 California	2006.0960	76,500		
2007-2008	2,992,332	875,000	0	3,867,332	505-525 Howard	2008.0001	74,500		Additional allocation for First & Howard Building #3
					680 Folsom Street	No Case	117,000		Redevelopment - Yerba Buena
					Alexandria District	2008.0850	1,122,960		Establishes Alexandria Mission Bay Life Sciences and Technology Development District ("Alexandria District") for which previously allocated office space and future allocations would be limited to 1,350,000 gsf to be distributed among designated buildings within district.
					600 Terry Francois	2008.0484	0*		Alexandria District - East Campus (212,825)

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O-MBA28L11

ANNUAL LIMIT FOR "LARGE" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,429,763

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Large" Office Annual Limit <sup>3</sup>	Reduction per Section 321.1	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
					650 Terry Francois	2008.0483	0*		Alexandria District - East Campus (291.367)
					1450 Owens	2008.0690	0*	1,390,980	Alexandria District - West Campus (61.581)
2008-2009	2,476,352	875,000	0	3,351,352	No Projects	N/A	0	0	
2009-2010	3,351,352	875,000	0	4,226,352	850-870 Brannan Street	2008.1026	138,560		aka 888 Brannan Street
					222 Second Street	2008.1106	430,650	569,330	LEED
2010-2011	3,657,122	875,000	0	4,532,122	350 Mission Street	2008.1524	340,320		under terms of Motion 17709
					Alexandria District	n/a	200,000		Priority Resolution Only
2011-2012	3,991,802	875,000	0	4,866,802	Treasure Island	2007.0903	0	940,320	under terms of Motion 17709
					Alexandria District	n/a	27,020		aka 888 Brannan Street
					850-870 Brannan St	2011.0583	113,753		
					444 DeLano St	2012.0041	90,500		
					460-462 Bryant St	2011.0895	59,475		
					185 Berry St	2012.0409	101,982		aka China Basin Landing
					100 Potrero Ave.	2012.0371	70,070		EN Legitimization
					601 Townsend Street	2011.1147	72,600	535,460	EN Legitimization
2012-2013	4,331,402	875,000	0	5,206,402	121 1st Street	2012.0257	1,370,877		Transbay Tower, aka 425 Mission
					181 Fremont Street	2007.0456	404,000		new office/residential building
					1550 Bryant Street	2012.1046	106,399		EN Legitimization
					1100 Van Ness Ave	2008.0885	242,987		CPMC Cathedral Hill MOB
					3615 Cesar Chavez	2009.0896	84,799		CPMC St. Luke's MOB
					345 Brannan Street	2007.0385	102,285		
					270 Brannan Street	2012.0799	189,000		
					333 Brannan Street	2012.0906	175,450		
					350 Mission Street	2013.0278	79,650		Salesforce (No. 2)
					999 Brannan Street	2013.0585	143,292	3,610,469	EN Legitimization - Dolby
					1800 Owens Street	2012.1482	700,000		Mission Bay Block 40
2013-2014	1,595,933	875,000	0	2,470,933	300 California Street	2012.0605	56,459		
					965 3rd Street	2013.0226	123,700		
					410 Townsend Street	2013.0544	76,000		
					888 Brannan Street	2013.0493	10,000		Airbnb - See Also 2011.0583B
					81-85 Buome Street	2013.0007	55,000	321,159	
2014-2015	2,149,774	875,000	0	3,024,774	801-805 Brannan Street	2012.1187	137,446		
					100 Hooper Street	2012.0203	284,471		
					390 Main Street	n/a	137,285		MTC Project - Verified on 4/14/15
					250 Howard Street	2014-002085	766,745		aka Transbay Block 5 (185 Beale St)
					510 Townsend Street	2014.0679	269,063	1,595,011	
					Total		19,082,655		

<sup>1</sup> Each approval period begins on October 17

O-MBA28L11

ANNUAL LIMIT FOR "LARGE" SAN FRANCISCO OFFICE DEVELOPMENT

Amount Currently Available: 1,429,763

Approval Period <sup>1</sup>	Unallocated Sq. Ft. <sup>2</sup>	"Large" Office Annual Limit <sup>3</sup>	Reduction per Section 321.1	Adjusted Annual Limit	Project Address	Case No.	Project Allocation	Total Allocated	Comments
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<sup>1</sup> Carried over from previous year

<sup>3</sup> Excludes 75,000 sqft dedicated to "small" projects per Section 321(b)(4)



## O-MBA28L11

### SMALL OFFICE APPROVALS - STATUS OF ALL PROJECTS

SMALL OFFICE APPROVALS - STATUS OF ALL PROJECTS							COMPLETE REVIEWED 18 MO. EXP. NOT NO INFORMATION / NOT APPLICABLE UNDER CONSTRUCTION AWAITING ADDITIONAL INFORMATION
Date	Case No.	Address	APN	Size	Notes	Status	Comments
1999-76	177 Townsend		3794-4.7	46,779	19732	don't count	n/a
2008-539	539 Pine		258-4 to 8/033	44,458	16113	approved	n/a
2000-88	150 Perry		327-22	39,174	23	don't count	n/a
1998-281	185 Berry		3803-205	49,260	18143	don't count	n/a
2000-190	251 Hawthorne		3735-087	44,600	15148	don't count	n/a
2000-680	251 Hawthorne		3735-087	44,600	15148	don't count	n/a
2000-122	48 Tehama		3736-044/045	49,300	16735	don't count	n/a
2000-723	829 Second		050687/921	49,600	12411	don't count	n/a
1999-423	899 Second		054867-921	49,600	12401	don't count	n/a
2001-2002	2001.00501	2001 18th Street	3091-419	48,000	16401	don't count	n/a
2002-0203	2002.0223	501 Fulton Street	3743-001	32,000	16516	complete	2006
2003-2004	2003.2004						
2004-2008	2005.0108	188 Berry Street	3749-001	40,000	17070	complete	2008
2006-2007	No Case	654 Minnesota	0402-001 & 05	43,839	none	complete	2006
2008-2009	2008.0094	110 The Embarcadero	3718-002	41,940	17804	complete	2011
2009-2011	2009.0047	650 Alhambra Street	4200-002	38,881	17873	complete	2011
2010-2011	2011.0048	2001 S 20th Street	3703-017	48,738	18608	complete	2012
2012-2014	2012.0014	505 Buchanan Street	3701-042	43,811	18503	complete	2012
2012-2019	2012.0129	375 Alhambra Street	3660-002	48,189	18574	complete	2013
2011-1049	385 7th / 1088 Harrison		3754-017	42,000	18700	complete	2013
2011-1413	215 Buchanan Street		3706-000	45,809	18672	complete	2013
2012-2013							
2013-2014	2013.0062	193 20th Street	4290-002	52,081	19198	complete	2018
2013-0092	2013.0092	2013 20th Street	4290-002	52,081	19198	complete	2018



O-MBA28L11

SMALL OFFICE APPROVALS - STATUS OF ALL PROJECTS

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
2014-2015	2013.1600	340 Bryant Street	3764-051	47535	18311	under construction		BPA 201305177189 issued 7/15/15.

COMPLETE
REMOVED
18 MOS. EXPIRED
NO INFORMATION / NOT APPLICABLE
UNDER CONSTRUCTION
AWAITING ADDITIONAL INFORMATION

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O-MBA28L11

LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
1985-1987	1986.085	600 California	0241-003 into 0241-027	318,030	11077	complete	1992	
	1984.432	235 Pine	0267-015	147,500	11075	complete	1991	
	1984.274	33 Columbia	0195-004	81,300	11076	doesn't count	n/a	revoked 12/00
	1985.079	343 Sansome	0239-002	160,449	11076	complete	1991	
1987-1988								No Projects Approved During Allocation Period
1988-1989	1984.199	524 Howard	3721-013	199,965	11683	doesn't count	n/a	reapproved in 1995 under Case No. 1995.843.
1989-1990	1987.613	150 California	0236-003 into 0236-019	195,503	11828	complete	2001	
1990-1991	1989.589	300 Howard	3719-005 into 3719-018	382,582	13218	complete	2001	aka 199 Fremont Street
1991-1992								No Projects Approved During Allocation Period
1992-1993								No Projects Approved During Allocation Period
1993-1994								No Projects Approved During Allocation Period
1994-1995	1994.105	101 Second Street	3721-072	386,655	13886	doesn't count	n/a	Reapproved in 1997 under Case No. 1997.484.
1995-1996								No Projects Approved During Allocation Period
1996-1997	1997.484	101 Second Street	3721-72.75 into 3721-089	368,800	14454	complete	2000	
1997-1998	1997.215	55 Second Street	3708-019A/033/034 into 3708-096	283,301	14542	complete	2002	aka One Second Street
	1996.643	244-256 Front	0236-018	58,850	14601	complete	2001	aka 275 Sacramento Street
	1997.787	650 Townsend	3783-009	269,680	14520	complete	2001	aka 699-08th Street
	No Case	455 Golden Gate	0765-002/003	420,000	none	complete	1998	State office building. See also case no. 1993.707.
	1997.674	943 Battery	0135-001	52,715	14872	complete	1998	
	1997.470	470 Brannan	3787-031	61,000	14685	complete	2001	
	1998.144	250 Stewart	3741-028 into 3741-035	540,000	14604	complete	2002	aka 2 Folsom/250 Embarcadero
1998-1999	1998.135	One Market	3713-006	51,822	14756	complete	2000	
	1998.843	524 Howard	3721-013	201,965	14601	doesn't count	n/a	revoked 6/11 under Case No. 2011.0593
	1998.646	Pier One	9900-001	88,350	none	complete	2003	Port office building

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O-MBA28L11

LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

								COMPLETE
								REVOKED
								18 MOS. EXPIRED
								NO INFORMATION / NOT APPLICABLE
								UNDER CONSTRUCTION
								AWAITING ADDITIONAL INFORMATION
Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
2003-2004	2001.1039	55 9th Street	3701-063	268,000	16760	doesn't count	n/a	200408111247 issued 5/18/05 - Authorization REVOKED by Planning Commission Motion Nos. 17521 and 17522 for proposal to convert project to residential use.
	2000.1229	Pier 30-32	3770-001	370,000	none	doesn't count	n/a	E, K & L Cases created, no B case created. BUDD permit approved in 2003 and allocation made for accounting purposes, but permit never acted upon. 2009 - 370,000 added back to cap because project does not appear to be moving forward.
2004-2005	No Case	Presidio - Lettman Digital Arts		839,301	none	complete	2006	No Projects Approved During Allocation Period
2005-2006	2006.0384	201-16th Street	3940-001	430,000	17223	complete	2008	aka 1409-1409 (since MBS Block X-4, 18 mos exp 10/6/07. Project (200607186038) complete 11/19/08
2006-2007	2006.1212	1500 Owens	8709-006	0*	17333	complete	2009	Alexandria District - North Campus (MBS 2601-3, 1455 Third Street/455 Mission Bay South Blvd/450 South Street) COMPLETE on 10/23/09 for "parking garage with 7 stories new building." 200806104062 filed on 6/10/08 for new 10-story office building - issued 4/23/10, but not under construction.
	2006.1216	1600 Owens	8709-004/010	0*	17332	approved	n/a	MBS Blk 25, Parcels 1-3, project proposes 3 buildings - building permit application no. 200704279921 (455 Mission Bay South Blvd.) COMPLETE on 11/17/09 for 5 story office/lab; 200705090778 (450 South Street) COMPLETE on 10/23/09 for "parking garage with 7 stories new building." 200806104062 filed on 6/10/08 for new 10-story office building - issued 4/23/10, but not under construction.
	2006.1509	Alexandria District - North Campus (MBS 2601-3, 1455 Third Street/455 Mission Bay South Blvd/450 South Street)	8721-012/8720-011/016/017	0*	17401	complete/approved	n/a	MBS Blk 27, Parcel 1 see also 2006.1509. 200806265407 filed 6/28/08 for 6-story office building - currently (9/29/08) being reviewed by SFFD. Sold to salesforce.com with 202,993 sq' allocation as of April 2011.
	2006.1536	1515 Third Street	8721-012	0*	17400	approved	n/a	18 mos exp 12/7/08. 200705151356 issued 2/20/08 - Conversion of existing structure into office - no major construction required. Final inspection (3/16/09)
	2006.1062	650 Townsend	3783-009	375,151	17440	complete	2009	

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O-MBA28L11

LARGE OFFICE APPROVALS - STATUS OF ALL PROJECTS

								COMPLETE
								REVOKED
								18 MOS. EXPIRED
								NO INFORMATION / NOT APPLICABLE
								UNDER CONSTRUCTION
								AWAITING ADDITIONAL INFORMATION
Date	Case No.	Address	APN	Size	Motion	Status	Completion	Comments
	2006.0616	120 Howard	3717-019	67931	17466	complete	n/a	Construction completed in 2012
	2006.1273	535 Mission	3721-068, 063	263,750	17470	approved	n/a	18 mos exp 2/2/09; 2/12/08 - 200508049463 issued by CPB on 8/21/08. Appealed to Board of Permit Appeals on 8/29/08 (Appeal No. 08-137) - appeal withdrawn and permit reinstated on 8/29/08. Separate permits issued for pile indicators, site cleanup and fencing. 10/24/08 - Construction started in early 2013.
2007-2008	2006.0660	100 California	0236-017	76,500	17544	approved	n/a	18 mos exp 7/31/09. No building permit on file as of 5/18/11. Beacon Capital started the process and then allegedly sold to Broadway Partners, who are reputed to be current owners- no current status
								6/16/14 update - Broadway Partners website lists the property as theirs. No building permits relating to project on file. Site visit on 6/17/14 shows no signs of upcoming construction activity.

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O-MBA28L11



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

November 2, 2015

Tiffany Bohee  
Executive Director  
Office of Community Investment and Infrastructure  
One S. Van Ness Ave., 5<sup>th</sup> Floor  
San Francisco, CA 94103

ALAMEDA COUNTY  
Tom Bates  
Margaret Fujoka  
Scott Haggerty  
Nate Miloy

CONTRA COSTA COUNTY  
John Giola  
David Hudson  
Karen Mitchoff  
Mark Ross

MARIN COUNTY  
Katie Rice

NAPA COUNTY  
Brad Wegenknecht

SAN FRANCISCO COUNTY  
John Avalos  
Edwin M. Lee  
Erio Mar  
(Vice-Chair)

SAN MATEO COUNTY  
David J. Canepa  
Carole Groom  
(Chair)

SANTA CLARA COUNTY  
Cindy Chavez  
Liz Kilsa  
(Secretary)  
Jan Pepper  
Rod G. Sinks

SOLANO COUNTY  
James Spering

SONOMA COUNTY  
Teresa Barrell  
Shirlee Zano

Jack P. Broadbent  
EXECUTIVE OFFICER/APCO

Subject: Response to Comments on the DSEIR for the Event Center & Mixed-Use Development at Mission Bay Blocks 29-32 (Project).

Dear Ms. Bohee:

The Bay Area Air Quality Management District (Air District) is willing to assist the City and County of San Francisco (City) by administering an off-site mitigation program to reduce this Project's significant air quality impacts to the extent feasible. As we have discussed extensively with City staff, the \$321,646 identified in M-AQ-2b is not sufficient to achieve the 17 tons per year of ozone precursor emission reductions needed for this Project. Due to the nature of air quality impacts that need to be mitigated, comparison of the Air District off-site mitigation program identified for this Project to other air district programs is inappropriate and incorrect.

The amount of funds required to reduce 4.4 tons of reactive organic gases (ROG) and 12.6 tons of oxides of nitrogen (NOx), including a 5 percent administration fee, is \$620,922. This amount is based on a study of the Air District's Vehicle Buy Back (VBB) program funds spent over the last 3 years and represents the average cost of reducing ROG and NOx during that three year period. Only through the VBB program can the Air District achieve the contemporaneous emission reductions and other conditions set forth in M-AQ-2b.

Air District staff continues to be willing to assist the City in implementing an off-site mitigation program. However, the Final Environmental Impact Report Response to Comments includes the following statement: "Acceptance of this fee by the BAAQMD shall serve as an acknowledgement and commitment by the BAAQMD to: (1) implement an emissions reduction project(s) within one year of receipt of the mitigation fee to achieve the emission reduction objectives specified above [i.e. 17 tons of ozone precursors per year]". Given this language, unless the City amends M-AQ-2b to fund this feasible mitigation measure at the \$620,922 level previously discussed with City staff, the Air District will be unable to participate in offsetting this Project's air quality impacts.

EXHIBIT 4

939 ELLIS STREET • SAN FRANCISCO CALIFORNIA 94109 • 415.771.6000 • WWW.BAAQMD.GOV

O-MBA28L11

Tiffany Bohee

November 2, 2015

If you have any questions, please contact Allison Kirk, Senior Environmental Planner, at (415) 749-5169 or [akirk@baaqmd.gov](mailto:akirk@baaqmd.gov).

Sincerely,

Jean Roggenkamp  
Deputy Executive Officer

cc: BAAQMD Vice Chair Eric Mar  
BAAQMD Director John Avalos  
BAAQMD Director Edwin M. Lee



O-MBA28L11



DATE: November 2, 2015

TO: Tiffany Bohee, OCII Executive Director

FROM: Chris Kern, City Planning Department  
Sally Oerth, OCII Staff

SUBJECT: BAAQMD November 2, 2015 letter re Ozone Precursors Offset Mitigation Fee

The City Planning Department and the staff of the Office of Community Investment and Infrastructure (OCII) have reviewed the November 2, 2015 letter from the Bay Area Air Quality Management District regarding the Warriors Event Center and Mixed Use Development Subsequent Environmental Impact Report (SEIR). The letter states that the \$18,030 per weighted ton per year plus a 5% administrative fee mitigation fee identified in Mitigation Measure M-AQ-2b of the SEIR is insufficient to achieve the required reduction of 17.0 tons per year of ozone precursors. The letter proposes that the mitigation fee should be based on the BAAQMD's Vehicle Buy Back Program, at a cost of \$620,922 (or approximately \$36,525 per weighted ton per year) to achieve the required emissions reduction.

As discussed in the Draft SEIR (pages 5.4-41 through 5.4-42) and the Responses to Comments document (pages 13.13-65 through 13.13-69), the offset fee identified in Mitigation Measure M-AQ-2b is based on the California Air Resources Board (CARB) Carl Moyer program cost-effectiveness criteria. These criteria were developed by CARB to establish the upper limit for emissions offset projects eligible to receive funding through the Carl Moyer program.

Planning staff has been in communication with BAAQMD with regard to its suggestion that a higher fee may be warranted to offset project emissions to a less than significant level and found that BAAQMD could not establish that an increased rate beyond that of the Carl Moyer Program plus a five percent administrative fee could meet the "rough proportionality" standard required under CEQA. The Carl Moyer fee structure was reviewed and updated by CARB in March of 2015 and became fully implemented on July 1, 2015. The offset costs cited in Mitigation Measure M-AQ-2b Emission Offsets are consistent with those of the CARB and other operating California air districts. For example, in the Sacramento Metropolitan Air Quality Management District, the off-site construction mitigation fee rate is \$18,030 per ton of excess NOx emissions as of July 1, 2015 (plus an administrative fee of 5 percent) and is based on the cost effectiveness formula established in California's Carl Moyer Incentive Program. In the San Joaquin Valley Air Pollution Control District, the Indirect Source Review (ISR) program requires that an offsite reduction fee of \$9,350/ton plus a 4 percent administration fee be applied

Edwin M. Lee  
MAYOR

Tiffany Bohee  
EXECUTIVE DIRECTOR

Mara Rosales  
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EXHIBIT 5

O-MBA28L11

Tiffany Bohee, OCII Executive Director  
Page 2

ER-2014-919-97  
November 2, 2015

for NOx emission reductions that cannot be achieved through onsite emission reduction measures. Furthermore, the offset costs in Mitigation Measure M-AQ-2b is consistent or even higher than comparable offset programs in the SFBAAB.<sup>1</sup>

The BAAQMD's November 2, 2015, letter does not establish that the CARB cost-effectiveness criteria are inappropriate for determining the offset costs under Mitigation Measure M-AQ-2b. Based on the information and analysis presented in the Draft SEIR, the Responses to Comments and supporting technical analyses, Planning Department and OCII staffs continue to believe that the offset fee established in Mitigation Measure M-AQ-2b is sufficient to achieve the required emissions offsets. In addition, as discussed in the Responses to Comments document, Mitigation Measure M-AQ-2b has been revised since publication of the Draft SEIR to allow the project sponsor to directly implement an emissions offset project as an alternative to entering into an agreement with the BAAQMD.

Therefore, for the reasons summarized above and discussed in greater detail in the SEIR and Responses to Comments, the November 2, 2015, letter from the BAAQMD does not alter the analysis or conclusions reached in the SEIR.

<sup>1</sup> Keinath, Michael, Rambol Environ, 2015. Analysis of the Proposed Offset Program for the Golden State Warriors. October 19, 2015.



O-MBA29L12



SMITH ENGINEERING & MANAGEMENT

November 13, 2015

Mr. Tom Lippe  
Law Offices of Thomas N. Lippe, APC  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Subsequent Environmental Impact Report for Event Center and  
Mixed Use Development at Mission Bay Blocks 29-32.  
SCN:2014112045**

P15003

Dear Mr. Lippe:

This is an addendum to my November 2, 2015 comments of the Responses to Comment ("the RTC") on the Subsequent Environmental Impact Report (hereinafter "the SEIR") on the above referenced Project in the City and County of San Francisco (hereinafter "the City"). This addendum focuses on additions to the Project that were not addressed in the DSEIR

My qualifications to perform this review were thoroughly documented in my letter of comment on the DSEIR dated July 26, 2015 and are incorporated herein by reference.

**Central Subway / T Third Electrical Power Distribution System Expansion**

The Central Subway / T Third electrical power distribution system expansion is included in the proposed Project to provide additional traction power for expanded frequencies of LRT service associated with new special event operations. This traction power expansion feature would provide two new circuits from the existing King Street substation for the inbound and outbound circuits of the Central Subway / T Third. Providing duct banks for the new electrical connection for King Substation and the Central Subway line would involve trenching in the eastbound and westbound travel lanes of King Street between Second and Fourth Streets. This trenching would take place over a 6-month

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O-MBA29L12

Mr. Tom Lippe  
November 13, 2015  
Page 2

period and would require lane closures while trenching and duct installation is actively taking place. Although the power distribution system expansion had previously been identified by SFMTA as a desirable long-term action, it is now incorporated in the subject Event Center and Mixed Use Development Project.

As noted in the third paragraph of SEIR Volume 4, page 12-11, the trenching work and duct installation on King Street associated with the electrical power distribution system expansion was not analyzed in the DSEIR.

Under CEQA, if the project changes after publication of the Draft EIR, and these changes create a new significant impact not identified in the Draft EIR, or a substantial increase in severity of a significant impact that was identified in the Draft EIR, the lead agency must recirculate the draft EIR for public comment. (CEQA section 21092.1.). Although the FEIR makes the conclusory statement that this would not result in new or more severe impacts than previously disclosed, there is no analysis to support this conclusion, which defies logic that this always busy boulevard would be unimpacted by lane closures over a period of six months.

Sincerely,

Smith Engineering & Management  
A California Corporation

Daniel T. Smith Jr., P.E.  
President



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[LC-TR-14]  
cont.



## I-Templeton

From: [Warriors\\_PLN \(CPC\)](#)  
To: [Basketball](#)  
Subject: FW: T'eedUP: GSW Arena a disaster for environmental justice and transit equity; ignores BART/Oakland Airport Connector precedents  
Date: Monday, November 02, 2015 4:05:52 PM  
Attachments: [T'eedUpTechnicalFoulsNov1.pdf](#)

From: john@zenviba.com [mailto:john@zenviba.com]  
Sent: Monday, November 02, 2015 8:30 AM  
To: Warriors, PLN (CPC); Secretary, Commissions (CPC); Boomer, Roberta (MTA); mtaboard@sfmta.com; Jared Blumenfeld Jared; Derrin.jourdan@dot.gov; Amber.ontiveros@dot.gov; croberts@sfxaminer.com; matlerandross@sfxchronicle.com; sfburo@nytimes.com; Wayne Futak Bay City News Wayne Futak; John Templeton; Bohee, Tiffany (CI); jgarofoli@sfxchronicle.com; cmarinucci@sfxchronicle.com  
Subject: T'eedUP: GSW Arena a disaster for environmental justice and transit equity; ignores BART/Oakland Airport Connector precedents

Dear Public Servants,

Please accept my attached submission with regard to the Subsequent Environmental Impact Statement concerning GSW Arena LLC's proposal to build an 18,000 seat arena, two office buildings, retail and open space in the Mission Bay redevelopment area.

After seeing the despicable comments by Planning Commissioner Michael Antonini last week, I was compelled to examine through critical race theory why the statement fails to comply with state and federal law and advisory opinions to address the profound environmental justice issues from the cumulative effects of decades of pollution centered on southeast San Francisco. The precedent for compliance was established firmly in the case of BART's Oakland Airport Connector.

Antonini wrote, as reported:

\*Tech and Airbnb have saved San Francisco.

"Their effect has bought many new residents to San Francisco and helped to provide vitality to many of our neighborhoods that were heretofore economically depressed, unsafe, dirty areas of San Francisco to which few would travel to shop, dine and -much less-live... The population of the neighborhoods have changed dramatically. "

\*Airbnb is better than... brothels?

"It's better to have short term renters sharing homes with owners, even in RH1 and RH2 neighborhoods, than to have multiple families living in a single family home or for such homes to be used for illegal criminal activities, often pretending to be message [sic] establishments."

For a decade, I engaged with the Excelsior and Bayview Hunters Point communities during the highly successful Branch Library Improvement Program as a board member of the Friends of the San Francisco Public Library, testifying before the Library Commission for the \$1 million to build the Bayview Linda Brooks Burton Branch Library instead of just a remodeling. I found those people in the forgotten parts of the City to be hard-working,

## I-Templeton

determined to raise their families and hopeful that they would share in the blessings that San Francisco has to offer. I also spent a lot of nights coming from evening meetings, particularly on Third Street, waiting for the T-Line in the cold, dark of night for as much as an hour.

Now that we have the Bayview Linda Brooks Burton Branch Library open for public programs as a magnet for the neighborhood, it troubles me that potential visitors would not be able to attend because their access would be blocked by the substantial and unmitigated impacts from placing such a gargantuan arena at the choke point of the \$2.2 billion investment of federal, state and local bond and property tax funds to build the T-Line, purportedly to finally link southeast to the rest of the City.

Unfortunately, Mr. Antonini's words are reflected in this EIR, because it assumes that the families of southeast San Francisco are much less valuable than the well-heeled luxury box purchasers who would enrich the owners of the Arena. Sports teams have morphed into a shell for real estate speculation. However, the desire to make windfall profits collides with the mandates of California's pioneering law in environmental justice, continually affirmed by the legislature since 1999 and most recently in advisory opinions by Atty. Gen. Kamala Harris.

It flies in the face of sustainable planning policy to move a large venue from a site which has access from an airport, Amtrak, BART, ACTransit and hundreds of acres of parking to rely on a single stop on the T-Line, which has failed to meet its promised service goals for the past eight years. The only conceivable reason is Antonini's assertion that certain types of people are more desirable. In the past year, two NBA franchises have changed hands because owners made similar admissions.

When the USF Dons had the opportunity in 1951 to play in the Cotton Bowl, only if they left their black players behind, the university and the players turned their back on the bowl, leading to their being labeled "the greatest college football team of all time." It is now time for our City officials to assert the primacy of justice over profit and reject this Arena.

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[LC-GEN-2]



## I-Templeton

### T'eedUP: Technical Fouls Make GSW Arena Bad for Environmental Justice Nov. 1, 2015

#### EXECUTIVE SUMMARY

A critical race theory analysis of the proposed Golden State Warriors Event Center in Mission Bay indicates that the Subsequent Environmental Impact Report falls short of the standards on the California Environmental Protection Act and the Executive Order 12898 because:

1. It does not address the cumulative effects of a Superfund site, proximity to a highway with more than 200,000 vehicles per day, two power plants and an open air waste water treatment plant and decades of governmental disinvestment on the largest concentration of affordable family housing in the nation's most expensive city for housing.
2. It breaks promises made to African-Americans throughout the city and Bayview-Hunters Point specifically about the T-Line being the artery to enhance access to the city's economy.
3. It values wealth and race in land use decision-making to the financial, health and civic detriment of African-American, Latino and Chinese citizens.
4. It does not supply the stated objective of the General Plan to provide middle class jobs to a community which has 43 percent of the city median income.
5. Technically, it makes assertions that fly in the face of reality about transit. Narrative testimony from young people throughout the city describe a segregated transit system in which race and income determine how quickly one moves across the city.
  - a. This project would block for more than 200 days per year the primary artery from Bayview-Hunters Point during peak hours.
  - b. MUNI has a history of missing construction deadlines. The T-Line was 18 months late. The Central Subway was planned to open in 2009.
  - c. This project would endanger children forced to use the Muni system to attend public schools and foster truancy or inability to participate in afterschool events.
  - d. Utilization of the 22-Fillmore would impact African-American and Latino transit riders.
6. The Subsequent Environmental Impact Statement fails to include any consideration of Environmental Justice nor does it include an Equity Analysis.
7. Expert opinion indicates that it would be easier for most San Franciscans and other citizens throughout the Bay Area to reach the current location (a 15 minute BART trip) than to reach the new facility.
8. The Event Center will raise housing prices, increase real estate speculation, short-term leasing activity and displace minority home owners already having faced the most severe predatory lending activity in the country.
9. A much more effective use of the land would be the development of research and development geared to addressing health disparities, particularly in honor of the late Dr. B. Nathaniel Burbridge.

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[AR-GEN-2]  
cont.

## I-Templeton

### T'eedUP

#### Profound Environmental Justice Issues with the Golden State Warriors Event Center EIR

- The T-Line currently is on time less than half of its scheduled runs; compared to the predecessor 15 bus line, it carries 20 percent more passengers, but operates 60 percent slower.
- GSW Event Center worsens the race and poverty related stress factors for the highest concentration of affordable housing in the City.
- The City and County of San Francisco has denied southeast San Francisco needed investment for 60 years, according to a 2004 civil grand jury report.
- The Draft Subsequent EIR contradicts the General Plan and the 1998 EIR for the Third Street Light Rail by ignoring the negative impact on Bayview-Hunters Point.
- The 30-Stockton line serving Chinatown is a proxy for the expected demand along the Central Subway. It also fails to achieve on-time operation half of the time. The proposed arena is right at the choking point where the current T-Line and additional Central Subway riders would intersect.
- A critical race theory analysis of the proposal indicates a long history of sports owners using African-American communities to gain public benefits but giving little in return in the Bay Area
- Open air waste treatment in Bayview Hunters Point would lift the smells from 18,000 event center patrons using the toilet into the homes of Bayview-Hunters Point residents, undoing gains in air pollution from closure of power plants.

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[LC-  
GEN-2]  
cont.

John William Templeton



I-Templeton

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I-Templeton

# T'eedUp

## Technical Fouls Make Proposed Warriors Arena Bad for Environmental Justice

By John William Templeton\*

### DEFINING ENVIRONMENTAL JUSTICE

Attorney General Kamala D. Harris defines environmental justice as "...the fair treatment of people of all races, cultures and incomes with respect to the development, adoption, implementation and enforcement of environmental laws, regulations and policies," in an advisory for local and regional governments.<sup>1</sup>

The U.S. Department of Transportation requires that its grantees:

"avoid, minimize or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations;

"ensure the full and fair participation by all potentially affected communities in the transportation decision-making process;

"prevent the denial of, reduction in or significant delay in the receipt of benefits by minority and low-income populations.."<sup>2</sup>

**\*Templeton is co-founder of National Black Business Month and architect of Our10Plan, the African-American economic fairness plan. Given a lifetime achievement award in February 2015 by the S.F. Public Utilities Commission Celebrating Black Achievement program, he served six years on the board of the Friends of the San Francisco Public Library and was active in the Excelsior and Bayview branch campaigns. Author of context statements on African-American history in San Francisco and San Jose, he is creator of the California African-American Freedom Trail. He has presented on environmental justice to Region 9 of the Environmental Protection Agency, the National Park Service, California Historical Resources Commission and U.S. Army Corps of Engineers, Sacramento district. Conservator of the 20,000 image Clarence Gatson Collection and the Wesley Johnson Collection, he convenes the annual Preserving California Black Heritage conference.**

<sup>1</sup> Harris, The Honorable Kamala D. "Environmental Justice at the Local and Regional Level Legal Background, Department of Justice, State of California, (p. 1) 2012

<sup>2</sup> Transportation, U.S. Dept. of "Revised DOT EJ Strategy, March 2012  
[http://www.fhwa.dot.gov/environment/environmental\\_justice](http://www.fhwa.dot.gov/environment/environmental_justice)

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[LC-GEN-2]  
cont.



## I-Templeton

In a 2012 regional videoconference<sup>3</sup> to Region 9 of the Environmental Protection Agency, this writer described southeastern San Francisco as a bellwether for the practice of environmental justice. Community members began addressing a variety of health and environmental factors in the 1940s, soon after World War II, and became famous in 1968 for sitting in at the office of the Secretary of the new Department of Housing and Urban Development until it received \$50 million as one for the first two Model Cities initiatives.<sup>4</sup>

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<sup>3</sup> Templeton, John William "The History of Environmental Justice," video conference, Region 9, Environmental Protection Agency, San Francisco, February 2012

<sup>4</sup> Templeton, *op. cit.* *Come to the Water: Sharing the Rich Black Experience in San Francisco*, (ASPIRE SAN FRANCISCO) 2010

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## I-Templeton

### CRITICAL RACE THEORY AND ENVIRONMENTAL JUSTICE

Critical race theory emerged as a scholarly field from the recognition that embedded practices in society lead to disparate outcomes. Foster<sup>5</sup> wrote:

"Consider the problem of environmental racism, understood as the disproportionate distribution of environmentally harmful substances (such as lead) and land uses (such as hazardous waste facilities) in communities of color. As with most adverse racially disparate outcomes across a spectrum of social contexts and goods, there is no clear perpetrator or encompassing theory of causation that explains these outcomes. Indeed, as I have argued, these outcomes are best understood as yet another manifestation of the racism and discrimination that exists throughout our social structure-in housing discrimination, political disenfranchisement, and lack of access to health care and other social amenities."

Decisions for public infrastructure, in this analysis, can have long-lasting generational impacts such as the decision by the New Deal-era Federal Housing Agency to insist on racial covenants as a condition for federal mortgage insurance<sup>6</sup>. It took a 1946 Supreme Court decision to overturn the rule, but the effects for residential segregation have endured for more than 70 years.<sup>7</sup>

When the Bay Area attracted major league sports franchises in the 1950s and 1960s, it located all the facilities in African-American neighborhoods of San Francisco or Oakland.<sup>8</sup> Through the 1990s, all the major league teams played in Bayview Hunters Point or East Oakland, with combined football/baseball stadiums and basketball arenas attracting more than 150 events per year.

In the same year that Willie Mays arrived from New York with the San Francisco Giants, Roy Clay Sr. arrived in the Bay Area as a computer programmer on the most advanced such device in the world, at the Lawrence Radiation Lab in Livermore.<sup>9</sup> His contributions to programming

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<sup>5</sup> Foster, Sheila D. "Critical Race Lawyering: Foreword," 73 Fordham L. Rev. 2027 (2005). Available at: <http://ir.lawnet.fordham.edu/flr/vol73/iss5/1>

<sup>6</sup> Fair Housing and Equal Opportunity, National Commission on "The Future of Fair Housing" <http://www.civilrights.org/publications/reports/fairhousing/historical.html>

<sup>7</sup> Ibid.

<sup>8</sup> Candlestick Stadium, Oakland/Alameda County Stadium and Coliseum, Cow Palace for the San Francisco Giants, Oakland A's, Oakland Raiders, San Francisco 49ers and Golden State (San Francisco) Warriors

<sup>9</sup> Clay, Roy, Sr. interviewee "Freedom Riders of the Cutting Edge," documentary, producers William Hammond and John William Templeton, Feb. 2009, KMTP-32 San Francisco

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and technology led to his naming as a Silicon Valley Engineering Hall of Fame member in 2002.

Also in 1957, the Santa Clara County Board of Supervisors, in a racially-motivated decision, chose not to join the Bay Area Rapid Transit District (BART), choosing instead to spend its transportation resources on highway construction.<sup>10</sup>

That decision would increase pollution to the north along US. 101 and I-280, built through the same neighborhoods as Candlestick Park and make lucrative defense contractor jobs relatively inaccessible to thousands of African-Americans who had worked in defense industries in the East Bay and southeastern San Francisco since World War II.

In 2015, the ramifications which those decisions set in motion have created a community severely impacted by a variety of air and ground pollutants without the employment base to maintain middle class communities.

A critical race theory analysis of environmental justice must address the long-standing inequities that go beyond the project in question. Although the project sponsors are ignorant of these inequities and may claim no role in causing them, they are the beneficiaries of these decisions and should be held accountable for not worsening already dire circumstances.

The question San Francisco decision-makers should ask is *"Why take the risk of increasing pollution to the most severely impacted community in the city and worsening transit access in order to move a sports arena away from another low-income, minority community?"*

In another decision of regional, long-lasting importance, the City and County of San Francisco now encourages, if not requires, its homeless or poverty-stricken African-American residents to use housing choice vouchers outside the city as far away as Fresno and Bakersfield, moving them even further away from opportunity.<sup>11</sup>

The consequences of its land use decisions must also take the same regional approach. A critical race theory approach is called upon to examine why the Subsequent Environmental Impact Report ("EIR") completely ignored the Bayview-Hunters Point General Plan, the Environmental Impact Report for the Third Street Light Rail and a long history of environmental racism towards the residents of southeastern San Francisco.

For example, the Subsequent EIR acknowledges:

"significant and unavoidable impacts in the areas of transportation and circulation (traffic impacts at multiple intersections and freeway ramps, and transit demand on regional transit providers exceeding capacity), noise (substantial permanent

<sup>10</sup> Templeton, *op. cit.* "Historical Resource Evaluation," African-American Service Center development, San Jose for Stevens and Associates Architects 2010

<sup>11</sup> Morenek, Toshio "Affordable Housing Programs Affordable Only to the Affluent" <http://america.aljazeera.com/articles/2015/2/3/san-francisco-affordable-housing-is-unaffordable.html>

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increase in roadway noise and crowd noise affecting sensitive receptors); air quality (construction and operational emissions or ozone precursors exceeding thresholds) wind, (substantial increase in wind hazard hours at off site public areas and utilities (construction of new or upgrader wastewater facilities and determination by the San Francisco Public Utilities Commission that it currently has inadequate capacity to serve the project's wastewater demand."

For the City and County of San Francisco to accept such outcomes is an act of environmental racism comparable to the restrictive covenants of the New Deal federal housing agency and the Santa Clara County supervisors who rejected BART (only to welcome it in 2015 at a much higher cost).

Ironically, the Santa Clara County employers who turned their back on workers from the East Bay and San Francisco have now gained approval to have their private shuttle buses stop at public transit stops, blocking the regular MUNI lines for a minimal fee without seeking any remediation for the impact on the 60 percent of MUNI riders who are minorities.

For the second time in 50 years, a county government is using transit infrastructure to promote employment segregation. As Goldman writes:

"Lower-income people should not bear the brunt of the negative externalities of economic development. "<sup>12</sup>

The disparity in the response to the concerns of the affluent and powerful neighbors of Mission Bay speaks volumes in contrast to the complete avoidance of the environmental injustice to be heaped on the long-suffering residents of Bayview-Hunters Point.

See these comments by Planning Commissioner Michael Antonini:<sup>13</sup>

*\*Tech and Airbnb have saved San Francisco.*

*"Their effect has bought many new residents to San Francisco and helped to provide vitality to many of our neighborhoods that were heretofore economically depressed, unsafe, dirty areas of San Francisco to which few would travel to shop, dine and - much less-live... The population of the neighborhoods have changed dramatically. "*

*\*Airbnb is better than... brothels?*

*"It's better to have short term renters sharing homes with owners, even in RH1 and RH2 neighborhoods, than to have multiple families living in a single family home or for such homes to be used for illegal criminal activities, often pretending to be message [sic] establishments."*

<sup>12</sup> Goldman, Alexandra "The Google Shuttle Effect: Gentrification and San Francisco's Dot Com Boom 2.0" submitted in satisfaction of masters in city planning, UC-Berkeley, Spring 2013 p. 3

<sup>13</sup> Roberts, Chris, "Socialists," "Racism," And "The American Way": Planning Commissioner Has Hot Takes On Election " San Francisco Weekly, Oct. 29, 2015 <http://m.sfweekly.com/thesnitch/2015/10/29/socialists-racism-and-the-american-way-planning-commissioner-has-hot-takes-on-election>

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Critical race theory highlights the importance of narratives to balance numerical processes which focus on the minutiae of individual projects without understanding how they affect people in the real world.

Talking to people in their own environment produces insights not available from outside “experts” with no cultural competency and different from what can be gathered through the typical public hearing format, with time limits on comments.

A process which says that notice was given in the legally proscribed way without any specific outreach into a community which has 43 percent of the median income of the city in general does not take into account financial and transportation pressures which can preclude participation in meetings, and the community’s lack of resources to analyze massive amounts of data.

San Francisco’s activists were legendary as relatively uneducated persons to take the time to study land use documents during the 1940s through the 1990s as the likes of Geraldine Johnson, Dr. Hannibal Williams and Mary Helen Rogers became more expert than the city officials they tormented.

A generation of health practitioners and scholars such as Dr. Arthur Coleman, a joint J.D./M.D. and Dr. Carlton B. Goodlett, an M.D. and Ph.D. and dentists like Drs. Dan Collins and Zuretti Goosby also gave the community the capability to speak authoritatively to the powerful.

Just recently, residents near Candlestick stopped the plan to implode the stadium to prevent dust pollution.<sup>14</sup>

Fortunately, the activists group POWER has created an excellent narrative summary of the impact of race, poverty and transportation in San Francisco. Alicia Garza, the catalyst behind the Black Lives Matter movement, was co-director of POWER.

The new generation of activists also includes the web site Color of Change, founded by Van Jones.

With such visible activists and the history of public involvement, it is quite inconceivable that an Environmental Impact Statement affecting Bayview-Hunters Point and secondarily, the Mission, Chinatown and the Western Addition would omit the issue of environmental justice.

However, the Candlestick implosion idea was handled in the same backdoor fashion until the community found out about it.

Additionally, this writer has conducted more than 400 oral history interviews of African-Americans in San Francisco since 2003 and catalogued the artifact collections of Dr. Carlton B. Goodlett, former publisher of the San Francisco Sun Reporter; Clarence Gatson, photo editor of the Sun Reporter and Wesley Johnson Sr., and Dr. Wesley Johnson III, owners of nightclubs and pharmacies from the 1940s through the 1970s.

For the past nine years, the community has been encouraged to tell their stories through the Preserving California Black Heritage conference each September. The 2015 conference led to

<sup>14</sup> NBC Bay Area “Developers Don’t Live Here: Bayview Resident says” Jan. 5, 2015  
<http://www.nbcbayarea.com/news/local/Developers-Ddont-Live-Here-SF-Resident-on-Demolition-of-Candlestick-Park-287552431.html>

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coverage by CNN, KGO and KPIX along with a Datebook article in the San Francisco Chronicle by uncovering an abandoned Sargent Johnson carving in the Western Addition neighborhood.

While raising funds for the Excelsior and Bayview branch library campaigns over the past ten years, this writer has had extensive experience catching public transit in the southeast part of the city after late night meetings. It has been apparent that there was a segregated transit system at work in the city, with different reliability standards based on the racial makeup of the neighborhood.

Reading about the proposed transit improvements offered to the basketball team caused him to explore the hypothesis in more detail.

Since 80 acres of Bayview were dedicated to slaughterhouses in the late 1880s, the community has borne the brunt of the city’s progress, without sharing in it.

The customized treatment of the Event Arena is comparable to the difference between the city’s two waste water treatment plants. The one in southeast San Francisco has been open air for 50 years, with smells apparent for miles and homes just feet away, contributing in no small way to profound health disparities and abridged mental health. The one at the Great Highway is completely contained with no smells.

Antonini’s slip of the email, like the video of Donald Sterling and the memo from the Atlanta Hawks owner, are just glimpses into the mindset behind the policy decisions at work for professional athletics.

Critical race theory is designed to ferret out those ramifications without such clear-cut instances. It doesn’t take a police shooting to determine whether “Black Lives Matter.” The choices that governments and businesses make are even clearer indicators.

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## I-Templeton

### CRITICAL RACE THEORY AND SPORTS

It is not an accident that the most visible breakthroughs to end segregation in American society in the early and middle 20<sup>th</sup> century first came in sports. The Olympic victories of Jesse Owens and Joe Louis in the 1936 Berlin Olympics and the successful entry of Jack Roosevelt Robinson as the first black player in major league baseball were pivotal, according to UC-Santa Cruz sociologist Anthony Pratkanis.<sup>15</sup>

San Francisco was pivotal to the integration of sports because of breakthroughs dating back to the 1890s. In the field of horse racing, Alonzo Clayton won the California Derby at Ingleside Race Track and later won the Kentucky Derby.<sup>16</sup> Rube Foster brought the Chicago American Giants beginning in 1908 to play in the Pacific Winter League, the first integrated professional baseball league, a decade before he started the Negro National League in 1929.<sup>17</sup>

The University of San Francisco's first black athlete, Earl Booker, won the intercollegiate boxing championship in 1934. By 1951, Ollie Matson and Burl Toler led the team to an undefeated record and a Cotton Bowl berth<sup>18</sup>. Their teammates turned down the bid when informed that the black players could not compete, leading to a reputation as the "greatest college football team in history" with four future NFL Hall of Famers.

William Felton Russell and K.C. Jones, both graduates of McClymonds High School in Oakland, led USF basketball to consecutive NCAA championships along with an Olympic gold medal performance in 1956. Russell and Jones would continue their championship run for ten seasons in the National Basketball Association as part of the most successful franchise ever, helping to enhance the popularity of the sport and attract television viewers.

Major league sports, particularly football and basketball, have an important responsibility to protect the historic character of the neighborhoods which sacrificed years of pollution, disruption and slow growth to help those leagues achieve their current financial success through the help of public assets, in the long view of the critical race theory perspective.

The relevant question to answer is whether there is a corresponding benefit to the people of southeast San Francisco, who have already hosted the Warriors for almost a decade at the Cow Palace in the 1970s and hosted the Giants and 49ers for 50 years at Candlestick.

<sup>15</sup> Pratkanis, Anthony and Turner, Marlene "The Year Cool Papa Bell Lost the Battling Title: Branch Rickey and the First Affirmative Action Program," Chap. 22 in *Our Roots Run Deep: the Black Experience in California, Vol. 2, 1900-1950* (ed.) Templeton, John William (ASPIRE SAN FRANCISCO)

<sup>16</sup> Templeton, op. cit. *Come to the Water*,

<sup>17</sup> Ibid. p.

<sup>18</sup> Ibid. p.

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No evidence is offered to suggest that the arena would have any benefit to this community, such temporary event jobs have been available for decades. Any such jobs would be simply transferred from the East Bay into San Francisco with no net gain in opportunity.

Would Bayview-Hunters Point residents get to enjoy the facility as fans? POWER indicates that the most likely result is that San Francisco Police Department would step up enforcement of fare violations to actually discourage its residents from mingling with event center riders<sup>19</sup>. They note the shooting of a young man on the T-Line platform by two officers seeking to cite him for fare evasion

It is also noteworthy that two NBA owners lost their teams in the last year, in Los Angeles and Atlanta, for suggesting that their games attracted too many African-Americans (even if they were rich former NBA players).

It is profound evidence that the specter of race is at the heart of the decision-making to leave what BART director and transit expert Tom Radulovich calls the optimum transit location in its current site.<sup>20</sup>

Sports sociologist Harry Edwards suggests that a sports facility is the absolute worst investment to make near an impacted community:

"...there is no option but to recognize that for increasing legions of black youths, the issue is neither textbooks nor playbooks—the issue is survival, finding a source of hope, encouragement, and support in developing lives and building legitimate careers and futures.

Without question, the ultimate resolution to this situation must be the overall institutional development of black communities and the creation of greater opportunity for black youths in the broader society.

The current Warriors owners join a long array of sports entrepreneurs—Bob Lurie, Al Davis, Eddie DeBartolo, Larry Ellison, Lew Wolff and Jed York—who have played sports monopoly with Bay Area governments. In every case, the owners win.

<sup>19</sup> Bialick, Aaron, "Warriors Arena Moving to Mission Bay: A Win for Transit Accessibility?" SFStreetsblog, April 23, 2014

<sup>20</sup> Edwards, Harry "Crisis of Black Athletes on the Eve of the 21st Century," from *Society*, March/April pp. 9–13. Copyright © 2000 by Springer-Verlag New York Inc.

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### THE PROJECT

The Office of Community Infrastructure and Investment has prepared an EIR<sup>21</sup> on the plan by GSW Arena LLC, an affiliate of the National Basketball Association team Golden State Warriors, to build an 18,000 seat arena, two office buildings, retail and parking spaces on an 11-acre parcel across from the UCSF Mission Bay campus.<sup>22</sup>

Moved from an initial proposal to site the arena on Pier 32, the project takes the current strategy for sports facility development of relying on additional real estate properties to help underwrite the cost. It was also calculated to attempt to avoid the potential for a voter referendum on projects which exceeded height limits on the waterfront.

In addition to the 41 home games, the facility would be in use for as many as 200 events throughout the year, becoming an adjunct to existing convention venues. A memorandum of understanding between the chancellor of UCSF and the Warriors has been touted to address concerns that the arena would hamper traffic to the three new adjacent hospitals.<sup>23</sup>

If completed, the facility would move the franchise from the Oracle Arena in Oakland, which has nearby access to Oakland International Airport, a BART and Amtrak station, a bus yard and Interstates 580 and 880, in addition to parking for the adjacent baseball and football stadium.

The new site would be accessible directly by a station on the Muni T-Line as well as surface streets.

The proposed arena is an addition to expanded use of the T-Line resulting from current construction of the Central Subway to North Beach.<sup>25</sup> This subway, using \$1 billion in federal transit funds, will stop at Union Square, and the Moscone Center with an anticipated 20,000 new riders.

Before voters on Nov. 3 is a proposal to create Mission Rock<sup>26</sup>, a mixed use housing and retail development on the site of the Giants parking lot. More than 6,500 units of housing has been

<sup>21</sup> Planning, Dept. of "Draft Subsequent Environmental Impact Report", Volume 1, p 1-1

<sup>22</sup> Ibid.

<sup>23</sup> Golden State Warriors-UCSF Memorandum of Understanding 10-7-2015

<sup>25</sup> Planning, Dept. of "Draft Environmental Impact Statement Third Street Light Rail April 3, 1998 p. S-1

<sup>26</sup> "Mission Rock Affordable Housing, Jobs and Historic Preservation Initiative," ballot argument for Nov. 3 election  
[http://sfgov2.org/ftp/uploadedfiles/elections/candidates/Nov2015/MissionRock\\_Text.pdf](http://sfgov2.org/ftp/uploadedfiles/elections/candidates/Nov2015/MissionRock_Text.pdf)

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built at Mission Bay adjacent to the UCSF campus.<sup>27</sup> Long-awaited plans for the development of Pier 70 with three million square feet of commercial space are in motion.<sup>28</sup> Sixteen hundred housing units are set for the former Schlage Lock site in Visitacion Valley<sup>29</sup> and the first homes are occupied of an eventual 10,500 (twice the current number of units in Mission Bay) in the Shipyard development on the former Hunters Point Naval Shipyard.<sup>30</sup>

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<sup>27</sup> Dineen, J.K. "Last part of Mission Bay North gets under way," *San Francisco Chronicle* May, 24, 2015 <http://www.sfchronicle.com/bayarea/article/Last-part-of-Mission-Bay-North-housing-6284483.php>

<sup>28</sup> Port of San Francisco, Pier 70 Preferred Master Plan, p. 1

<sup>29</sup> Planning, Dept. of Schlage Lock Project Fact Sheet, Public Benefits and Features

<sup>30</sup> Fimrite, Peter, "Housing blooms at last at once toxic Hunters Point shipyard site," June 8, 2015 *San Francisco Chronicle*



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### TECHNICAL FOULS IN THE ENVIRONMENTAL IMPACT PROCESS

The proposed Warriors event center would strangle the only transit lifeline for the largest concentration of affordable housing in San Francisco, increase pollution from waste water and auto emissions and drive up housing costs.

POWER's *Next Stop: Justice: Race and Environment at the Center of Transit Planning* report found:

"Bus riders in the core communities of color in San Francisco are impacted by long waits and overcrowded buses. Comparing the MTA's data on the core lines that POWER members ride with the MTA's recorded system average we found that overwhelmingly, the on-time performance on each of these lines in southeast San Francisco is significantly worse than the system average."

Quoting rider Lorren Dangerfield:

"The T-train at night usually means at least 20-30 minutes waiting. Then often when the train does come, it's only running from downtown to 23<sup>rd</sup> St. It turns around before it even gets to Bayview. The buses that affect the poorest communities are the ones that run the slowest and least often."<sup>31</sup>

The T-Line in 2012 was the city's second most used light rail line, according to Next Stop: Justice, with 30,033 daily riders. It was only on-time 58 percent of the time with headway adherence (scheduled time between trips) on 45.3 percent of trips. At peak evening hours, 17 percent of the trips were overcrowded.<sup>32</sup>

This compares with the performance of the 15-Third bus line that it replaced in 2007:

"15 - Third Street. This is MUNI's primary bus route in the Corridor. The route is operated using articulated motor coaches and serves City College of San Francisco, Downtown, Chinatown, North Beach and Fisherman's Wharf via Third Street, Kearny and Montgomery Streets, and Columbus Avenue. Within the Corridor, the route primarily follows Third Street and Geneva Avenue. It provides regional connections with the Caltrain Terminal at Fourth and Townsend Streets and comes within two blocks of Caltrain's station at Paul Avenue. The route also connects with the BART and MUNI Metro subway systems at both the Montgomery and Embarcadero BART Stations, as well as with BART's Balboa Park Station. The route operates every five minutes during the a.m. peak period, every six to seven minutes during the p.m. peakperiod, and every ten minutes between these periods. Approximately 33 percent of the route's 24,200 daily boardings occur north of Market Street."<sup>33</sup>

The inherent bias towards approval of projects once they reach the stage of Environmental Impact Statement is demonstrated by the No Action option in the 1998 EIR. The same objective of the Third Street Light Rail could have been met by purchasing 40 more articulated

<sup>31</sup> POWER "Next Stop: Justice: Race and Environment at the Center of Transportation Planning," 2012 p. 4

<sup>32</sup> Ibid. p. 6

<sup>33</sup> Planning, Op. cit. Third Street Light Rail p. 3-2

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buses. Yet, as the civil grand jury notes, the Third Street Light Rail went forward despite costing ten times the originally budgeted amount. The cost overruns would compromise MUNI's ability to conduct scheduled maintenance on its fleet for a decade.

Like a trick shot in pool, it would also impact low-income communities in the Western Addition, Mission and Chinatown as the 22-Fillmore is anticipated to serve the arena and the current 30-Stockton would see its riders use the Central Subway. Additionally, once the Central Subway is completed in 2019, T-Line riders will no longer connect with Muni Metro.

In 2019, the T-Third/Central Subway will become an independent train system with no direct connection to the rest of Muni Metro, BART and the ferry system.<sup>34</sup>

The Memorandum of Understanding between UC-SF and the Warriors is only the latest instance of this project ignoring the principles of environmental justice. Repeatedly, the potential impacts on the people of southeast San Francisco are ignored at every stage of the process. Within more than 2,500 pages, the topic never comes up.<sup>35</sup>

In addition, the Arena's siting and proposed operation is likely to contribute to the dramatic outmigration of African-Americans from San Francisco. Studies of similar sports arenas using the real estate investment strategy show such an effect.<sup>36</sup>

### The Failure of the T-Line

In 1998, a similar environmental impact statement described the T-Line as "a key infrastructure improvement to help support the economic and physical revitalization of the Bayview Hunters Point commercial core and the planned development in Mission Bay."<sup>37</sup>

The Bayview-Hunters Point general plan labels the T-Line as<sup>38</sup>

".. the nucleus for public transit improvements and socio-economic revitalization efforts in the corridor, and prioritize the efficient movement of the light rail by reducing conflicts with automobile and truck traffic."

In 2005, this writer presented an exhibition at the Bayview Branch Library called SFSoul: Taste the Excitement. It documented the role of the two dozen African-American nightclubs

<sup>34</sup> Civil Grand Jury, Op. cit. p. 22

<sup>35</sup> Ibid. p. 6

<sup>36</sup> Messmer, Patrick D. "Inner Cities, Private to Private Eminent Domain Transfers and Public Financing of Stadiums, Seton Hall Law School

[http://scholarship.shu.edu/cgi/viewcontent.cgi?article=1269&context=student\\_scholarship](http://scholarship.shu.edu/cgi/viewcontent.cgi?article=1269&context=student_scholarship)

<sup>37</sup> Planning, Op. Cit. Draft Environmental Impact Statement, Third Street Light Rail, p. S-1

<sup>38</sup> Planning, Dept. of "San Francisco General Plan-Bayview-Hunters Point Policy 4.3  
[http://www.sf-planning.org/ftp/general\\_plan/Bayview\\_Hunters\\_Point.htm#BHP\\_TRA\\_4\\_3](http://www.sf-planning.org/ftp/general_plan/Bayview_Hunters_Point.htm#BHP_TRA_4_3)

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between the 4000 and 6700 block of Third Street, the longest continuous black business district in California.<sup>39</sup>

Those clubs were bases for athletic leagues and charitable drives as the social centers of a majority African-American neighborhood.

The construction of the T-Line for three years created a significant hurdle for those businesses.

However, the benefit to the community was a link which would make the isolated community integrated with the city's main employment centers.

"Buses caught in Corridor traffic often provide unreliable service south of Downtown. Currently, passengers may experience overcrowding and extended waiting times between buses, as well as slower operating times and increased travel times. This situation is projected to worsen as traffic in Downtown and along the Corridor increases to 2015 levels."<sup>40</sup>

In 2015, the Controller's Office found in its 2015 biennial survey of citizen satisfaction with city services that residents of Supervisorial District 10, which is bisected by the T-Line had the lowest satisfaction of any residents in the City with Muni services.<sup>41</sup>

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<sup>39</sup> Johnson, Jason "New look at black restaurateurs: photo exhibit highlights diversity of cuisine, culture," *San Francisco Chronicle*, Aug. 13, 2005

<sup>40</sup> Planning, Op. Cit. Third Street Light Rail 1998 p. S-4

<sup>41</sup> Controller, City and County of San Francisco Biennial City Performance Survey <http://sfcitysurvey.weebly.com/muni.html>

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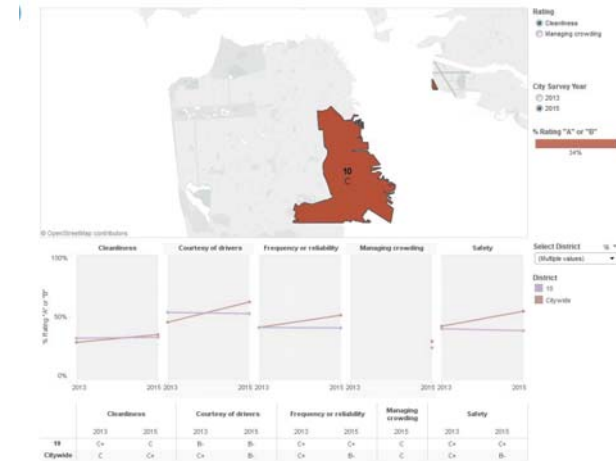


Figure 1. 2015 Citizen responses to question on Muni on-time performance in District 10. Source, Controller

The Controller's performance review of all city departments found that MUNI overall achieved less than 80 percent of the goal spelled out in the City Charter.<sup>42</sup>

The August 20 report from the Controller showed that citywide, MUNI reliability declined from the previous year.<sup>43</sup>

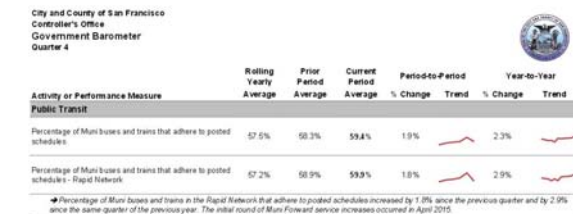


Figure 2. Muni performance on Charter goals April-June 2015 from Quarterly Government Barometer. Source, Controller City Services Auditor

<sup>42</sup> Controller, Quarterly Government Barometer, April-June 2015 <http://sfcontroller.org/Modules/ShowDocument.aspx?documentid=6693>

<sup>43</sup> Controller, *Ibid.*

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The 1998 EIR for the Third Street light rail projected a 39 percent increase in corridor population and a 35 percent increase in corridor employment by 2015.<sup>44</sup>

“As a result of the projected population and employment growth in the Corridor, traffic congestion on major highways and arterials, particularly Highway 101 and Third Street, is expected to increase substantially. Highway 101 at Cesar Chavez is expected to be Level of Service (LOS) F (excessive delays) and LOS E at intersections of Third and Cesar Chavez and at Bayshore and Arleta.”

The first goal of the project was “Improve transit service to from and within the Corridor, thereby enhancing the mobility of Corridor residents, business people and visitors.”<sup>45</sup>

In 1997-98, the 15 Line provided six minute schedules. The No Build alternative would have reduced its schedule to five minute increments. The promise that light rail would improve that performance has proven false. Only 34 percent of District 10 residents give MUNI an A or B grade for on-time performance, one in three.<sup>46</sup>

For the first EIR of the T-Line, the City and County of San Francisco underestimated the 2015 population of San Francisco by 40,000, with much of the unforeseen growth happening along the T-Line corridor.<sup>47</sup>

The Civil Grand Jury also noted that the T-Line Light Rail came in at \$678 million for construction, overwhelming the \$200 million bond passed to address the entire city’s transportation needs.<sup>48</sup>

There is no reason to believe that a hastily done EIR for a second-choice site, without any of the four years of community input which the T-Line conducted from 1993-97, will address the serious issues raised by the original construction of the Third Street Light Rail Line.

Anyone who was using Muni regularly around the time of the T-Third rollout should remember the process as being anything but smooth. One of the reasons cited for the bumpy rollout was the internal decision to use outdated ridership models. The original ridership models forecasted a 2005 opening for the line. However, the line did not open until 2007.<sup>49</sup>

<sup>44</sup> Planning, Op. Cit. Third Street Light Rail 1998 p. S-2

<sup>45</sup> Planning. Ibid. p. S-2

<sup>46</sup> Controller, City Survey 2015, Muni <http://sfcitysurvey.weebly.com/muni.html>

<sup>47</sup> Planning, Op. Cit. Third Street Light Rail 1998 p. S-2

<sup>48</sup> Civil Grand Jury, Superior Court “Central Subway: Too Much Money for Too Little Benefit,” 2010-2011 term.

<sup>49</sup> Ibid. p. 15

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## I-Templeton

### A Spur for Gentrification

Compared to the relative racetrack pace for the Warriors arena, it took from 1993 to 2007 for the merchants and residents of Third Street to finally see the light rail line which had been promised to them.<sup>50</sup>

The five segments that make up the Corridor between Visitacion Valley and the Caltrain Terminal have a high proportion of minority residents. According to the 1990 Census, 50 percent of this portion of the Corridor is Black, 31 percent is Asian, 15 percent is White, and 10 percent is Hispanic. These proportions contrast with the racial distribution of San Francisco residents, who are less than 1 percent Black and 53.6 percent White. The highest proportion of Black residents is found in Segments 2 and 3 (58 and 67 percent, respectively), while most of the Hispanic population resides in Segments 1 and 2. Asians from the predominant population group in Segment 1; whereas, Segments 4 and 5 have mostly White populations.<sup>51</sup>

In 1992, the San Francisco Human Rights Commission published Unfinished Agenda, a report which described the unequal conditions of African-Americans in San Francisco, then still ten percent of the population of 750,000.<sup>52</sup>

In 1962, poet James Baldwin toured Bayview Hunters Point with a National Educational Television crew describing conditions not unlike Mississippi along the hillside.<sup>53</sup>

The next year, young people from the community launched the most successful civil rights campaign of the 1960s, the United San Francisco Freedom Movement.<sup>54</sup> Led by Bill Bradley Jr., a Marine veteran and law student; and Tracy Sims, a Berkeley High graduate, the

<sup>50</sup> Polaris Research and Development “The Unfinished Agenda: The Economic Status of African-Americans in San Francisco, 1964-1990

<sup>51</sup> Planning, Op. cit. “Third Street Light Rail EIR,” 4-26

<sup>52</sup> National Educational Television “Take This Hammer,” featuring James Baldwin (1963) produced by KQED <https://vimeo.com/13175192>

<sup>53</sup> Ibid.

<sup>54</sup> Templeton, John William (curator) “Students and Scholars Marching for Civil Rights exhibition of the 50<sup>th</sup> anniversary of the United San Francisco Freedom Movement, San Francisco Fairmont, Civic Center Holiday Inn public program featuring Dr. Oba T’Shaka, emeritus professor of black studies, San Francisco State University (Bill Bradley Jr)

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## I-Templeton

campaign married the resources of the Congress of Racial Equality, NAACP and the Crispus Attucks Clubs of Bayview-Hunters Point, led since 1948 by Mrs. Ardith Nichols.<sup>55</sup>

Highpoints included the Palace Hotel sit-in on March 5, 1964 and the Auto Row sit-ins in May of that year. Eventually, 375 companies signed employment agreements, including all of the Big Three automakers.

Lawyers for the movement, Terry Francois and Willie L. Brown Jr. were elected to the Board of Supervisors and California Assembly. Despite relocation from the building of U.S. 101 and redevelopment activities in South of Market, Western Addition and Hunters Point, the bulk of the black community settled into middle class enclaves of home ownership throughout Bayview and Ocean-Merced-Ingleside. Subsidized apartments in the Western Addition and Hunters Point provided affordable renter space.

As late as 2000, San Francisco had 35 percent of its black labor force in management and professional jobs, the highest percentage in the country.<sup>56</sup>

Disparate policies began to break apart a community that produced the likes of Maya Angelou, Johnny Mathis and Danny Glover in the 1960s. The extended denial of public transit coupled with pollution from U.S. 101 combined with the residue of the Hunters Point Shipyard to create some of the most toxic pollution in the country.

Despite the problems, isolation from the rest of the city allowed the workers from the Butchertown slaughterhouse district and longshoremen to live in stable middle class communities.

“Singing” Sam Jordan, “the mayor of Butchertown”, used those workers as a power base to actually run for mayor of San Francisco in 1963. The former boxer opened his namesake club Sam Jordan’s at 4004 Third Street in 1959.<sup>57</sup>

The Long Island Club became a magnet for entertainers and athletes as the highest paid professional players in baseball and basketball, Willie Mays and Wilt Chamberlain, both competed in San Francisco.

Presence of the Candlestick football and baseball stadium and Cow Palace basketball and boxing arena helped sustain the clubs and bars along Third Street.

However, a series of changes in the sports business would remove those amenities. Although a \$100 million bond to refurbish Candlestick for the 49ers was passed in 1997, the team declined

<sup>55</sup> Bayview’s Last Stand, third annual Preserving California Black Heritage conference at Southeast campus, City College, September 2009 featured community artifacts day at Sam Jordan’s Bar

<sup>56</sup> Ibid.

<sup>57</sup> Ibid.

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## I-Templeton

to take the offer.<sup>58</sup> As the Los Angeles Times noted, only ten percent of the 49ers fans actually lived in San Francisco.

The year before, the Giants followed in the wake of Baltimore’s Camden Yards to build a stadium at Third and King Streets. With the presence of the California Institute for Regenerative Medicine, the stadium would spark a nearby real estate boom.<sup>59</sup>

Construction of the Third Street light rail line would not deliver the promised gains for the longtime residents of this area, but a source of construction dust and decay for the Bayview-Hunters Point business district.

When interviewed in 2005 for the SFSoul exhibition, long time owners said they were just barely hanging on with a fraction of their normal customers.<sup>60</sup>

Unlike the EIR for the GS Warriors Arena, the Third Street light rail EIR of 1998 contained a section of “Environmental Justice Considerations” citing Executive Order 12898, signed by President Bill Clinton in Feb. 1994. A memorandum issued with the order said that a National Environmental Protection Act (NEPA) analysis must include “effects on minority communities and low-income communities.”<sup>61</sup>

For the purposes of the analysis, South Bayshore was 91 percent minority in 1998.

The example of the Barclays Center in Brooklyn, opened two years ago, indicates how the new model of sports facility, as a development spur instead of an event venue, worked against the interests of impacted communities.

Messmer analyzed its impact on the population of Brooklyn<sup>62</sup>:

“While NYC as a whole saw a net loss of nonhispanic whites of -2.8, Brooklyn saw a 4.5 percent increase in the number of nonhispanic whites. “

The study also reported a 5.8 percent drop in Brooklyn’s black population.

“As the Barclay Center drove up real estate values, it began pricing economically disadvantaged minorities out of the market,” wrote Messmer.

Since 1992, the date of the Unfinished Agenda report, the black population of San Francisco has fallen from 10 percent to 5.8 percent in 2013.<sup>63</sup>

<sup>58</sup> Simers, T.J. THE NFL / T.J. SIMERS : 'Ours' for the Taking? : If Stadium Referendum in San Francisco Fails Today, the L.A. 49ers Might Not Be as Crazy as It Sounds Los Angeles Times June 3, 1997 [http://articles.latimes.com/1997-06-03/sports/sp-65243\\_1\\_san-francisco-49ers](http://articles.latimes.com/1997-06-03/sports/sp-65243_1_san-francisco-49ers)

<sup>59</sup> Dineen, Op. Cit. San Francisco Chronicle, May 24, 2015

<sup>60</sup> Johnson, Op. Cit., San Francisco Chronicle, Aug. 13, 2005

<sup>61</sup> Planning, Op. Cit. Third Street Light Rail EIR p. 5-13

<sup>62</sup> Messmer, Op. Cit.

<sup>63</sup> Census, U.S. American Community Survey 2015

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An outmigration task force in 2010 produced a list of recommendations to address the decline, which were ignored.<sup>64</sup>

In 2014, the San Francisco African-American Chamber of Commerce issued a call for a tourism boycott of San Francisco's \$9 billion industry. An agreement with city officials to remove that call has also been forgotten.<sup>65</sup>

The Golden State Warriors Arena would be the third attempt by Mayor Ed Lee to place a sweetheart deal in the hands of billionaires for the waterfront. The city lost \$11 million on the America's Cup at the hands of Larry Ellison;<sup>66</sup> and the voters blocked the 8 Washington luxury development.

In contrast to the \$11 million to Ellison and the \$34 million in tax breaks to Uber, Twitter, et.al.<sup>67</sup> in Mid-Market, the city has spent less than \$1 million with businesses on Third Street as three-fourths of the historic black restaurants present in 2005 are still in business despite decades of previous success.

The oldest black bookstore in the country, a landmark of black literary genius, was sold at auction because the City refused to extend \$1 million in loans to the business.<sup>68</sup>

These incidents and many others speak to the continuing failure of the City and County of San Francisco to comply with community benefit agreements and to incorporate environmental justice into its land use decision making.

### Community? What Community?

The precedent for environmental justice litigation rests with a train line which runs adjacent to the current site of the Golden State Warriors.

As Public Advocates describes<sup>69</sup>:

<sup>64</sup> Human Rights Commission, "Report of the San Francisco Mayor's Task Force on African-American Outmigration" 2009

<sup>65</sup> O'Conner, Lydia "Black Business Leaders Call for Boycott of San Francisco Tourism," Huffington Post Dec. 23, 2013 [http://www.huffingtonpost.com/2013/12/23/black-boycott-san-francisco-tourism\\_n\\_4494850.html](http://www.huffingtonpost.com/2013/12/23/black-boycott-san-francisco-tourism_n_4494850.html)

<sup>66</sup> Budget and Legislative Analyst, Board of Supervisors "Analysis of the Impact of the 34<sup>th</sup> America's Cup to the City" Feb. 10, 2014

<sup>67</sup> Lang, Marissa "Companies avoid \$34 million in city taxes thanks to "Twitter tax break," San Francisco Chronicle Oct. 19, 2015

<sup>68</sup> Holloway, Lynette "Doors shuttered at Nation's Oldest Black Bookstore," The Root, May 11, 2014 [http://www.theroot.com/articles/culture/2014/05/marcus\\_books\\_the\\_nation\\_s\\_oldest\\_black\\_bookstore\\_closes.html](http://www.theroot.com/articles/culture/2014/05/marcus_books_the_nation_s_oldest_black_bookstore_closes.html)

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"In September 2009, Public Advocates filed a successful civil rights administrative complaint with the Federal Transit Administration (FTA) on behalf of our partners Urban Habitat, Genesis, and TransForm. The complaint challenged Bay Area Rapid Transit's (BART's) controversial Oakland Airport Connector (OAC) project, alleging that in BART's rush to build the OAC, the agency violated federal rules implementing Title VI of the Civil Rights Act of 1964 — rules that require transit agencies to analyze whether their projects have a disproportionately negative impact on low-income and minority populations.

### Why We Advocated Against the OAC

"The \$492 million OAC was conceived as a three-mile elevated tramway connection from the BART Coliseum station to the Oakland International Airport, and would eliminate the existing cost-effective AirBART shuttle service.

"It would provide little, if any, transit mobility benefits to the area's overwhelmingly low-income and minority residents due to its prohibitive \$12 roundtrip fare and its lack of intermediate stops along the job-rich Hegenberger corridor. BART's own analysis predicts that less than 3 percent of the OAC riders will come from the immediate East Oakland neighborhoods surrounding the project.

### Victory! The FTA Acts to Enforce Civil Rights

"In response to our complaint, in October 2009 the FTA began conducting a sweeping on-site compliance review of BART, finding many civil rights deficiencies.

"Based on BART's failure to conduct an equity analysis of the OAC, in February 2010 the FTA pulled \$70 million in American Recovery and Reinvestment Act funds from the project — the first action of its kind in the nation. The strong action underscored a promise made in President Obama's State of the Union address to continue "prosecuting civil rights violations."

"The federal stimulus funds were recaptured by Bay Area transit agencies, including AC Transit, and used to maintain existing transit service and jobs. To remedy the many civil rights deficiencies identified by the FTA, BART was also required to implement a corrective action plan, which we and our allies have been monitoring, and which we responded to in May 2010.

<sup>69</sup> Public Advocates "BART/Oakland Airport Connector" Sept. 3, 2009 <http://www.publicadvocates.org/bartoakland-airport-connector-oac>

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Not only the City and County of San Francisco, but also the Warriors should have been aware of this precedent. Yet neither the EIR or MOU addresses the transit needs of the South Bayshore community, 91 percent minority in 1998.

According to the San Francisco Housing Element:

Since 2010, the percentage of San Franciscans claiming white racial affiliation increased, totaling nearly 51% of the city's population according to the 2012 American Community Survey (ACS). San Francisco's African-American population continues to decline, dropping from 6.1% in 2010 to 6% in 2012. San Franciscans of Chinese origin declined from 21.4% of the total population in 2010 to 21.2% by 2012. The proportion of San Franciscans identifying with Hispanic origins (of any race) has increased from 14.1% in 2010 to 15.1% in 2012.

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### HACK THE IMPACTS

The Hack a Shack strategy in professional basketball slows down the pace by intentionally fouling a poor free throw shooter. The proposed Golden State Warriors Arena intentionally fouls a low-income, minority community by mischaracterizing impacts which were previously spelled out in the 1998 EIR.

The previous discussion shows that all three tenets of federal environmental justice policy are compromised. Below, impact determinations in the EIR for the project are shown to ignore impacts on low-income and minority communities.

Impact TR-4: The proposed project would not result in a substantial increase in transit demand that could not be accommodated by adjacent Muni transit capacity such that significant adverse impacts to Muni transit service would occur under Existing plus Project conditions without a SF Giants game at AT&T Park LS No mitigation required is described as less than significant effect with mediation when it should be correctly characterized as significant.

*The service standards proposed in 1998 have not been met; residents of District 10, the poorest area of the city are dissatisfied with service. There is a significant case to be made that the current sports facility, AT&T Park, is the primary reason for poor service to the current population. This determination is not credible based on the current difficulties of the T-Line.*

Two of the busiest transit lines in the city, both serving heavily minority populations, would be impacted. The T-Line only serves twenty percent more passengers than the previous 15 bus line, but provides 40 percent slower service. The 30-Stockton runs the same route as the Central Subway under construction. It's 33,000 passengers would be added to the load of the T-Line, which means that the subway would be at capacity with just current riders.<sup>70</sup>

Impact TR-13: The proposed project could result in a substantial increase in transit demand that could not be accommodated by adjacent Muni transit capacity such that significant adverse impacts to Muni transit service would occur under Existing plus Project conditions with an overlapping SF Giants evening game at AT&T Park.

*The only mitigation proposed is use of shared car services, which are much less likely to be available in low-income areas or to be accessible to low-income residents.*

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<sup>70</sup> POWER, Op. cit. Next Stop: Justice pg.8



## I-Templeton

*MUNI demand peaks at 5 p.m. with increases of as much as 100 percent. A recent early evening game at the Levi's Stadium indicates the problems with placing a sports stadium in the midst of a busy commercial/industrial area.<sup>71</sup>*

**Impact TR 14:** The proposed project would result in a substantial increase in transit demand that could not be accommodated by regional transit such that significant adverse impacts to regional transit service would occur under Existing plus Project conditions with an overlapping SF Giants evening game at AT&T Park. SUM

*Paradoxically, the EIR admits that the regional transit system can be overwhelmed but asserts that MUNI, with a fraction of the capacity currently servicing the basketball arena, would not be.*

*The Dept. of Public Health's Climate Action and Health Co-Benefits report states:*

*In order to balance the burdens of our transportation system with the benefits placed on certain communities, special efforts should be made to target service improvements to particularly benefit low income residents, communities of colors, the elderly, and neighborhoods that have a historical legacy of dealing with higher levels of environmental exposures.*

**Impact TR20:** Without implementation of the Muni Special Event Transit Service Plan, the proposed project would result in a substantial increase in transit demand that could not be accommodated by adjacent Muni transit capacity such that significant adverse impacts to Muni transit service would occur under Existing plus Project conditions. SUM

*The design of the T-Line took multiple lanes away from Third Street, reducing the capacity for additional transit service without blocking throughput to other areas. The level of MUNI service traditionally available to 49ers games at Candlestick would be compressed into a much smaller area.*

**Impact TR-21:** Without implementation of the Muni Special Event Transit Service Plan, the proposed project would result in a substantial increase in transit demand that could not be accommodated by regional transit capacity such that significant adverse impacts to regional transit service would occur under Existing plus Project conditions.

*The additional auto traffic on U.S. 101 from the gridlock from events would bring additional sources of pollution into an area which already has to suffer from the city's wastewater treatment plant and dust from Shipyard construction.<sup>72</sup>*

**Impact TR 22:** Without implementation of the Muni Special Event Transit Service Plan, the proposed project could result in a substantial overcrowding on public sidewalks, nor create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility on the site and adjoining areas under Existing plus Project conditions.

<sup>71</sup> Evangelista, Benny "Tech employees work from home to avoid 49ers-Seahawk traffic," *San Francisco Chronicle*, Oct. 22, 2015 <http://www.sfgate.com/business/article/Tech-employees-work-from-home-to-avoid-6585010.php>

<sup>72</sup> Ibid.

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*Congestion would make it difficult for residents of Bayview-Hunters Point to walk or ride to downtown amenities, the complete opposite of the goals of the T-Line.<sup>73</sup>*

**Impact PH-1:** Construction of the proposed project would not induce substantial growth in the area, either directly (for example, by constructing new homes or businesses) or indirectly (for example, through extension of roads or other infrastructure).LS No mitigation required

*San Francisco has the highest rental costs in the nation.<sup>74</sup> This arena would not create any additional jobs, but would attract absentee residents to bid up nearby properties so that they could be near the arena, a trend already seen in the city.<sup>75</sup> It would also reduce the supply of housing due to services like AirBnb renting spaces near the arena for 200 days of events.<sup>76</sup> Google's shuttle bus service grew from 155 passengers at two stops in 2004 to 100 buses daily with 10,000 passengers.*

**Impact PH -2:** Construction of the proposed project not displace existing housing units or create substantial demand for additional housing LS No mitigation required

*The City and County of San Francisco is 7,000 units short of replacing housing removed by redevelopment activity according to the Housing Element. Section 8 applicants are currently referred to sites outside the city and homeless African-American women are given tickets to leave the area in return for assistance.<sup>77</sup>*

**Impact PH-4:** Operation of the proposed project would not induce substantial population growth in the area, either directly (for example, by constructing new homes or businesses) or indirectly (for example, through extension of roads or other infrastructure) LS No mitigation required.

*Not a credible statement given the rapid growth of Mission Bay. The 1998 Third Street Light Rail EIR underestimated the city's population by 40,000, more than its daily passenger load.<sup>78</sup>*

<sup>73</sup> Ibid.

<sup>74</sup> Zumper National Rent Report San Francisco remained the most expensive market in the United States for the ninth straight month, with median 1-bedroom rents rising to \$3,460, the highest ever recorded. The gain was particularly notable considering that NYC, the second most expensive market, saw rents plateau in February, even after a slight drop of 3.2% <https://www.zumper.com/blog/2015/03/zumper-us-rent-report-february-2015/>

<sup>75</sup> Dai, Danielle, Weinzimmer, David "Riding First Class: Impacts of Silicon Valley Shuttles on Commute and Residential Location Choice" working paper, UC-Berkeley Department of City Planning

<sup>76</sup> Said, Carolyn "The AirBnb Effect" *San Francisco Chronicle* July 12, 2015 <https://www.sfchronicle.com/airbnb-impact-san-francisco-2015/#1>

<sup>77</sup> Phelan, Sarah "Saving the southeast" *San Francisco Bay Guardian* May 13, 2009

<sup>78</sup> Planning, *Op. cit.* "Third Street Light Rail EIR, p. S-3

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## I-Templeton

### Environmental Justice Legal Issues

The proposed MUNI service changes would fly in the face of decades of case law and regulations for environmental justice. For instance, BART is currently conducting an analysis of its new extension in Fremont.

“Federal Transit Administration (FTA) Title VI Circular (Circular) 4702.1B, Title VI Requirements and Guidelines for Federal Transit Administration Recipients(October 1, 2012), the District is required to conduct a Title VI Service and Fare Equity Analysis” <sup>79</sup>

This has not occurred for the proposed transit changes. The BART report had to make the following determination:

“The travel assessment compares the estimated travel time for riders affected by the service change before and after the new service. The results of the travel time assessment found that the Project would benefit all populations, including minority and low-income, within the Project Catchment area. With project service, all populations are expected to experience the same time savings of 11.85 Minutes between Warm Springs and the Fremont Station, a 55.8% reduction in travel time. <sup>80</sup>

“With the exception of Option 3, staff also found that travel times are not expected to change for riders of existing stations, as a result of the proposed options. As proposed in the FY2016 Preliminary Budget, additional cars would be added to the Green and Blue lines, which will lessen peak period crowding. As a result, the study found that minority populations will not experience a disparate impact and low -income populations will not experience a disproportionate burden on their travel times with the new service.” <sup>81</sup>

In the courts, the aforementioned BART connector case set a precedent by showing that the Metropolitan Transportation Commission spent \$9 for every \$0.50 spent on buses for low-income persons.<sup>82</sup> The service designed specifically for an arena to a high-income arena flies in the face of that precedent.

<sup>79</sup> BART “Warm Springs Extension Title VI Equity Analysis and Public Participation Report” May 7, 2015 p. 5

<sup>80</sup> Ibid.

<sup>81</sup> Ibid.

<sup>82</sup> Public Advocates, *Op. cit.*

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In San Diego, Atty. Gen. Harris vision of environmental justice was upheld when a court found that cumulative effects must be considered. A petition to intervene in the case Cleveland National Forest Foundation vs. San Diego Association of Governments in 2012 insisted that government agencies consider environmental justice.<sup>83</sup>

The attorney general warned the regional body in a comment letter that it failed to study the impact of increased pollution on minority communities.

“...the Attorney General is effectively putting lead agencies across the state on notice that a failure to address EJ considerations in the implementation of climate change policies will risk challenges to the legal sufficiency of their environmental impact documents.”

The legislative foundation for environmental justice comes from AB32 in 2006, which established an advisory committee on the issue.<sup>84</sup>

There is also an emerging standard on community participation.

“According to the EPA, “meaningful involvement” in environmental decision making means that: “(1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public's contribution can influence the regulatory agency's decision; (3) the concerns of all participants involved will be considered in the decision making process; and (4) the decision makers seek out and facilitate the involvement of those potentially affected.” However, members of affected communities may lack the technical resources, English language proficiency, access to quality legal representation, or simply the time to participate effectively.”

Similar standards have been enacted by the California Air Resources Board.<sup>85</sup> Its 2001 document asserts:

Local land-use agencies are directly responsible for the siting of new air pollution sources, and local air districts also play an important role by issuing permits for new sources of air pollution. We are committed to working as partners with these agencies to improve the available information that local agencies use to make planning and permitting decisions. <sup>86</sup>

The Air Resources Board also addresses cumulative impacts:

<sup>83</sup> Hsiao, Peter, et.al. “Environmental Justice as Environmental Impact: the Intersection of Environmental Justice, Climate Change and the California Environmental Quality Act” Bloomberg BNA World Climate Change Report Vol. 2012 No. 48 March 12, 2012 p.

<sup>84</sup> Bonoris, Steven (ed.) *Environmental Justice for All: A Fifty State Survey of Legislation, Policies and Cases (fourth ed.)* American Bar Association 2010 p. iv

<sup>85</sup> Air Resources Board, California “Policies and Actions for Environmental Justice” 2001

<sup>86</sup> Ibid. p. 1

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It shall be the ARB's policy to work with local land-use agencies, transportation agencies, and air districts to develop ways to assess, consider, and reduce cumulative emissions, exposures, and health risks from air pollution through general plans, permitting, and other local actions.<sup>87</sup>

The landmark global warming act and subsequent legislation, plus legal opinions from the attorney general and court cases all underscore the importance of addressing potential impacts from the prism of environmental justice.

A DOT Title VI analysis of BART in 2009 found deficiencies in its environmental justice performance.

"FTA recipients should seek out and consider the viewpoints of minority, low-income, and LEP populations in the course of conducting public outreach and involvement activities. An agency's public participation strategy shall offer early and continuous opportunities for the public to be involved in the identification of social, economic, and environmental impacts of proposed transportation decisions."<sup>88</sup>

Based on those state and federal standards, the failure to address environmental justice in the Subsequent Environmental Impact Statement is problematic.

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<sup>87</sup> Ibid. p. 10

<sup>88</sup> Federal Transit Administration "BART Title VI Final Draft 2009" 2009

## I-Templeton

### The Demographics of the Impacted Area

Activist Marie Harrison described Bayview Hunters Point as the epicenter for environmental injustice in a 2003 report:

"The neighborhood is home to approximately 34,800 people, and more than 500 heavy and light industrial companies, retail stores, and commercial establishments. According to U.S. 2000 census data, approximately 48% of residents in Bayview Hunters Point are African American, 1.3% American Indian, 23% are Asian and Pacific Islanders, 17% are Hispanic and 10% are White. Income levels are significantly lower, and unemployment rates significantly higher for this small community, than for San Francisco as a whole: Nearly 40% of Bayview Hunters Point residents have annual incomes below \$15,000, while only 20% of the City's population as a whole have income that low, and the unemployment rate is 13% in Bayview Hunters Point, more than twice as high as the City as a whole."

Community victories to close the Hunters Point power plant have had the effect of opening up the area for new migrants. The African-American population of the neighborhood has dropped by 50 percent since 2000.

**Stress Factors Based on Race, Income and Unequal Opportunity.** For the purposes of the critical race theory analysis of environmental justice, the affected population must be viewed through the lens of the traumatic events which have occurred over the past 50 years. Each of these stress factors is known to, or reasonably should be expected to be known to the preparers of the Draft Subsequent Environmental Impact Statement. The civil grand jury wrote in 2004:

"There are deeply rooted social problems that result in part from systematic negligence dating back to World War II. The City of San Francisco has failed to invest significantly in this community for over 60 years."

**Loss of industry in Bayview-Hunters Point.** The General Plan discusses the impact of the closure of the Hunters Point Shipyard, but does not mention the decision to move to containerized shipping, which reduced jobs in the commercial maritime industry. There is a significant history of biomedical innovation in the black community. Dr. Nathaniel Burbridge was a pharmacologist and professor at UCSF, but became known for leading the NAACP during the United San Francisco Freedom Movement.

Eric Williams, the son of Ruth Williams, the namesake for the Ruth Williams Memorial Theater in the Bayview Opera House, holds 20 patents for cardiac stents. A proposal to mark the 50<sup>th</sup> anniversary of the United Freedom Movement with a Nathaniel Burbridge Center for Innovation and Diversity located in the India Basin area has been ignored by city officials despite the evidence from the similar Impact Hub in Oakland, which has spawned close to 1,000 businesses in two years.

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Kevin Epps, producer of the documentary Straight Outta Hunters Point, was also unable to gain city support for an incubator to develop media and online businesses. Other entrepreneurs seeking to provide clean renewable power have had a lack of interest from city officials.

The biggest need is to provide 5,000 industrial/assembly/distribution/construction jobs for residents of the area, not temporary event positions.

### Health Disparities

Blackwell wrote:

“Health surveys have shown that Bayview Hunters Point residents suffer from rates of cervical and breast cancer that are double those found in the other parts of the Bay Area, an asthma rate that is three times higher than in the rest of the state, and rates of hospitalization for congestive heart failure, hypertension, diabetes and emphysema that have been determined to be more than three times the statewide average. In addition, children living in the Bayview are far more likely to contract illnesses than children in the rest of the city, and infants are more likely to die.<sup>89</sup>

Income inequality is a significant factor for those health disparities, according to the San Francisco Dept. of Public Health’s Community Health Assessment.

“Although the median household income in San Francisco seems relatively high at \$70,040, San Francisco has the largest income inequality of the nine Bay Area counties... Income inequality is directly related to health inequality, with higher income linked to better health: the greater the gap between the richest and poorest people, the greater the differences in health.”

<sup>89</sup> Blackwell, Savannah Environmental Justice “Real World” Pathfinder: Bayview Hunters Point, San Francisco UC-Berkeley School of Law Jan. 26, 2009 savannahblackwell.com

## I-Templeton

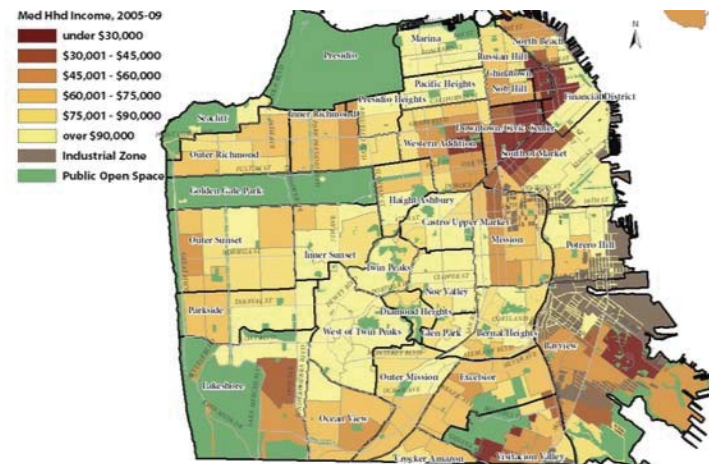


Figure 3 Income Inequality concentrated in District 10. Source San Francisco Dept. of Public Health

### Reduction of Home Ownership.

According to Sen. Diane Feinstein, California had the highest rate of mortgage fraud in the nation,<sup>90</sup> and the problem was concentrated in the Bay Area, with southeast San Francisco, particularly targeted.

This is particularly problematic because the South Bayshore planning district has the third highest percentage of single family homes in the city, with 66 percent. By contrast, downtown has only two percent single family homes.

“Larger households of four or more persons are generally found in the south-eastern neighborhoods of the Mission, Bayview, Visitacion Valley, and the Excelsior where typical housing units have two or more bedrooms.”

According to the 2014 Housing Element, the City has a responsibility to create more affordable housing:

“San Francisco’s share of the regional housing need for 2015 through 2022 has been pegged at 28,870 new units, with almost 60% to be affordable.”

<sup>90</sup> Feinstein, Sen. Diane “Mortgage Fraud and America’s Foreclosure Crisis” 2010 p. 7



## I-Templeton

However, the city's affordable housing policies are not as useful as one might think for African-Americans. The maximum income to qualify for low-income housing allotments in San Francisco at 70 percent of the median income is 50 percent higher than the median income for African-Americans.<sup>91</sup> That means African-Americans are outbid for subsidized housing because their income is significantly less on average than any other group. Developments actually constructed by African-American churches and lodges find themselves hard pressed to accommodate long-time black residents due to the intense competition.

### Foul Air

In 1997, the asthma hospitalization rate for Bayview-Hunters Point African-American children was 820 per 10,000, the highest rate in California.

Air pollution has been linked to asthma, allergies, cardiovascular and respiratory diseases, cancer, neurological and reproductive disorders, and premature death (CARB 2009). In San Francisco, approximately 102,000 children and adults are currently diagnosed with asthma, with children and the elderly having significantly higher rates of asthma (CDPH 2011).<sup>92</sup>

The unavoidable impact of 18,000 persons using the toilet, along with potentially another 45,000 baseball fans smells to high heaven for the residents of southeast San Francisco.

"Sophie Maxwell, the member of the San Francisco Board of Supervisor's whose district includes Bayview Hunters Point, lives within a few blocks of the Southeast sewage plant. In 2006, she told San Francisco Bay Guardian reporter Sarah Phelan that "every time [she] come[s] home and get[s] off the freeway, [she is] constantly reminded the plant is there."

"You can smell it day and night," Maxwell told Phelan. "It's unacceptable."

Originally constructed in 1952 with most of its operations placed outdoors, the plant was expanded in 1987 after a series of public hearings. To overcome residents' resistance to the plans, the city agreed to construct a community college campus in the neighborhood. In addition, officials promised that the facility's increased operations would not be noticeable and would result in "no odors." The fact that those promises have not been kept is impossible to ignore on hot days when the aroma of fecal matter becomes especially repugnant."

The Southeast Waste Treatment Plant uses 11 open air tanks and nine digesters compared to the Oceanside plant on the Great Highway, which is 1.5 miles from the nearest residence and uses an underground tunnel to send waste out into the ocean. Its operations can not be smelled outside

<sup>91</sup> Planning, Op. Cit. Housing Element

<sup>92</sup> Public Health, Dept. of "Climate Action and Health Co-Benefits"

1  
[LC-GEN-2]  
cont.

## I-Templeton

### Conclusion

During the first game of the 2015 NBA Finals, this writer visited restaurants featured in his 2005 exhibit to watch the series. Leaving Paul and San Carlos after the conclusion, he walked approximately 20 blocks to 4000 block of Third Street without having a single T-Line train pass.

After visiting at the historic Sam Jordan's, he then went to the Third and Evans station to wait for a train. It took 67 minutes to arrive, close to two hours without service.

It was consistent with his experience in the previous decade attending community meetings in the Excelsior district for the branch library campaign and in Bayview Hunters Point for the campaign for the brand new library opened last year. Like the young lady in the POWER report, waiting for the T-Line at Third and Revere always takes a lot of patience, particularly at night in the cold.

Since then, he has observed the patterns for other MUNI light rail lines, observing that they adhere to posted schedules. The T-Line is subject to switchback at Marin Street, dumping dozens of riders to a crowded sidewalk at the busy Cesar Chavez intersection.

A review of available evidence confirms the reasoned suspicion that the placement of an event arena and entertainment complex at Third and Sixteenth Street with a single MUNI stop serving it, not directly connected to the rest of the MUNI Metro system, would inexcusably impact a community which has traditionally caught the short end of City policy.

1  
[LC-GEN-2]  
cont.



PH2

1 bicycle valet parking at the Giants Stadium, which has  
2 150 spaces, we routinely have to turn people away. So,  
3 it's a very popular option.

4 The bike valet parking, along with the  
5 improved bike network and robust encouragement programs  
6 will help make this the single most bicycle-friendly  
7 professional sporting venue in the country upon  
8 completion. So, it could be a real feather in the  
9 City's cap.

10 We also acknowledge that the growing number of  
11 bicycle trips to a venue like this takes an ongoing  
12 effort over time, so we are looking forward to continued  
13 partnership with the Warriors to ensure this project and  
14 the City meet their goals to make this a great place to  
15 bike to.

16 Thank you.

17 CHAIRPERSON ROSALES: Thank you.

18 TOM LIPPE: Good morning, Members of the  
19 Commission. My name is Tom Lippe. I represent the  
20 Mission Bay Alliance.

21 And a couple of points. First of all, on the  
22 secondary use finding, Susan Brandt-Hawley, my  
23 cocounsel, has sent a letter by E-mail yesterday,  
24 contesting the secondary use -- the appropriateness of  
25 finding that this as an allowable secondary use under

Lippe-1  
[LC-PP-1]

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PH2

1 the Redevelopment Plan. So, I would encourage you to  
2 take a look at that. She's also going to speak today to  
3 flesh out the reasons for that.

4 If it turns out that it is a proper secondary  
5 use, then you actually need a variance under the  
6 Redevelopment Plan. You can't just amend the Design for  
7 Development.

8 And I have a letter on that point, which I'd  
9 like to submit to you today, which I also E-mailed  
10 yesterday, and that is here.

11 (Letter submitted to staff.)

12 With respect to your finding that the EIR  
13 complies with CEQA, it turns out it doesn't for lots of  
14 reasons. One of those reasons has to do with the fact  
15 that the EIR took the position that compliance with the  
16 City's NPDES permit, which is a water-quality permit,  
17 would ensure no water-quality impacts of significance.

18 Well, I objected and said you have to prove  
19 that you comply. And the Response to Comments said,  
20 Well, we comply.

21 So, we got the Water Board enforcement files,  
22 which are five binders of ten years of noncompliance by  
23 the City. So, that simply is not a proper basis to find  
24 that there would be no significant effect on water  
25 quality. So, I'd like to give you those binders.

Lippe-1  
[LC-PP-1]  
cont.

Lippe-2  
[LC-HVD-1]

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PH2

1 (Binders submitted to staff.)  
2 There's also my comment letter on the EIR,  
3 which is in two binders, with Exhibits A through S.  
4 (Binders submitted to staff.)  
5 CHAIRPERSON ROSALES: So, is this the first  
6 time you're giving us this?  
7 TOM LIPPE: It is.  
8 And just on that point, we only had 11 days  
9 after your staff of 58 people had two months.  
10 Two quick points. The Bay Area Air Quality  
11 Management District is not participating in your offset  
12 mitigation for ozone precursor pollution; therefore --  
13 CHAIRPERSON ROSALES: Continue.  
14 TOM LIPPE: -- that mitigation measure is no  
15 longer effective to reduce -- we never thought it was,  
16 but even on your own terms, it's not effective to reduce  
17 those impacts to less than significant, because the  
18 agency to do the offset program is no longer agreeing to  
19 the price.  
20 And that is a mitigation measure that the  
21 project sponsor apparently has refused to adopt, and  
22 that's a trigger for recirculating the EIR as a draft so  
23 that people can comment on this development. And this  
24 is a development that occurred yesterday, apparently,  
25 based on the letter that was on the table this morning.

↑  
Lippe-2  
[LC-HYD-1]  
cont.

↑  
Lippe-3  
[LC-ERP-4]

↑  
Lippe-4  
[LC-AQ-1]  
↓

↑  
Lippe-4  
[LC-AQ-1]  
cont.

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PH2

1 And then, finally, I have a letter from my  
2 co-counsel, Soluri Meserve, on the noncompliance of the  
3 EIR by CEQA.  
4 (Letter submitted to staff.)  
5 Thank you.  
6 JIM LAZARUS: Commissioners, Jim Lazarus,  
7 San Francisco Chamber, also our partner in labor and  
8 other civic organizations, the Alliance for Jobs.  
9 Our visitor economy will benefit greatly from  
10 this facility. This is a transit-rich location, one  
11 that can accommodate not only the great growth that we  
12 all appreciate at Mission Bay, but the growth of our  
13 visitor industry through the development of this  
14 facility.  
15 I urge people to look at the ballot handbook  
16 from 1996, when the ballpark was on the ballot,  
17 challenged by early residents of Mission Bay and  
18 China Basin.  
19 That ballpark said the world as we know it --  
20 or, that ballot argument said the world as we knew it at  
21 the time would end with the development of AT&T Park --  
22 congestion, driving jobs and tax revenues away from the  
23 City, gridlock -- opposed the ballpark. We know that  
24 didn't happen.  
25 The privately built AT&T Park is one of the

↑  
Lippe-5  
[LC-PP-1]

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PH2

1 Potrero Hill Neighborhood House. I am here to support  
2 this project with the Warriors.  
3 I've worked with the Warriors for a long time.  
4 They've given us tickets so I could bring my youth to  
5 games. They've supported our educational efforts with  
6 the youth in our communities, and they've just -- this  
7 is a wonderful, wonderful opportunity to bring a  
8 championship team here to San Francisco.  
9 I am here to say ditto to all of those who  
10 support this project, and look forward to welcoming the  
11 Warriors here to our community.  
12 Thank you.  
13 CHAIRPERSON ROSALES: Does the baby want to  
14 say something?  
15 COMMISSION SECRETARY GUERRA: I'm calling, for  
16 the last time, Oscar James, Stuart Canning,  
17 D.J. Brookter, and Ramon Hernandez.  
18 SUSAN BRANDT-HAWLEY: Good afternoon, Members  
19 of the Commission. I am Susan Brandt-Hawley, and it's  
20 hard to follow a baby sleeping in a Warriors' jersey,  
21 but I'll do my best.  
22 We all support the Warriors. That's not the  
23 issue here today, but the public looks to this  
24 Commission to follow the environmental laws in every way  
25 before approving this project or considering approval.

Hawley-1  
[LC-PP-1]

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PH2

1 You've received a number of letters from me  
2 and others regarding environmental problems, and yet the  
3 Final EIR that we just received a little over a week  
4 ago, with thousands of pages, the approvals are being  
5 rushed through, which is unfair to the Commission and  
6 unfair to the public, because a lot of the environmental  
7 questions have not been solved.  
8 I would like to turn in, for the record, just  
9 a few letters that I've sent to you. But these are hard  
10 copies, in case you don't have them yet.  
11 (Letters submitted to staff.)  
12 I'd like to focus, in just this very short  
13 amount of time, on a really critical underlying issue  
14 and problem here that needs to be solved that we brought  
15 up in the Draft EIR comments in July -- that the EIR  
16 declined to study in any way the land-use consistency of  
17 this plan.  
18 The South Mission Bay Redevelopment Plan sets  
19 out a very careful, planned community in these classic  
20 bare blocks to allow development of the biotech industry  
21 and other compatible uses.  
22 The EIR did not study land use, claiming that  
23 this qualified as a secondary nighttime entertainment.  
24 And as I explained in my letter, none of the secondary  
25 uses -- nighttime entertainment, that's supposed to be

Hawley-1  
[LC-PP-1]  
cont.

104



PH2

1 for bars and small evening establishments; a recreation  
2 building, which is being claimed, when this is actually  
3 entertainment, which is not an active recreation, but  
4 it's, in fact, something that people watch; or a public  
5 structure or use, which, in fact, this is not, because  
6 it's not a public building.

7 You can fix this problem by considering  
8 amendment of the Redevelopment Plan. But right now,  
9 this project is directly inconsistent and does not  
10 qualify for -- as a secondary, much less a primary use.

11 So, we'd ask you to take some more time, look  
12 as the EIR comments that we've submitted, and, in  
13 particular, take a hard look at these findings that are  
14 not supportable regarding the secondary use.

15 I'm not sure. Do I have more time here?

16 CHAIRPERSON ROSALES: I'll allow more time  
17 just to finish.

18 SUSAN BRANDT-HAWLEY: Okay.

19 Well, thank you very much for your attention.  
20 And we ask that you continue this, look at all the  
21 issues that have been raised.

22 And, again, the public is looking to you to  
23 make sure whatever is approved -- we believe, should be  
24 at a -- certainly, at another location -- is fully  
25 resolved and not go forward and create environmental

Hawley-1  
[LC-PP-1]  
cont.

Hawley-2  
[LC-ALT-1]

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PH2

1 problems.

2 Thank you.

3 CHAIRPERSON ROSALES: Thank you.

4 COMMISSION SECRETARY GUERRA: Are there any  
5 others that would like to speak?

6 (No response)

7 Madam Chair, I have no further speakers.

8 CHAIRPERSON ROSALES: Okay. And there's no  
9 one in the overflow rooms?

10 There's two overflow rooms.

11 COMMISSION SECRETARY GUERRA: We checked.

12 CHAIRPERSON ROSALES: Okay.

13 We will close the Public Comment. Thank you,  
14 everyone, for speaking.

15 The time is 12:16.

16 I think my fellow Commissioners and I are a  
17 little tired, and I think we need a little break. So,  
18 if we can take a 30-minute break, I think that's fine,  
19 so that we can stretch our legs and come back for the  
20 balance of the calendar.

21 (Luncheon recess taken at 12:17 p.m.)

22  
23 ---oOo---

24  
25

Hawley-2  
[LC-ALT-1]  
cont.

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PH2

1 here to ask for your support.

2 I'm David Wong. I'm Bay Area Deputy Sheriff  
3 Charitable Foundation executive director. We work with  
4 you, and once a year, we have a shop with the Deputy  
5 Sheriff program where we take 300 to 500 disadvantaged  
6 children to do Christmas shopping. And out of those --  
7 out of that program, we ask a pro sport athlete to  
8 accompany -- to do the shopping, where we guide the kids  
9 to a better direction.

10 I'm a retired Deputy sheriff in San Francisco,  
11 and if we can prevent kids when they're young, we can  
12 prevent a lot of crime. And that's what I do.

13 So, just imagine when Coach Al Attles,  
14 accompanied with a couple of kids to shop, their parent  
15 is so amazingly shocked that, you know, Coach Al Attles  
16 would shop with them.

17 Just imagine if we could tell the parents and  
18 the children that Warriors is -- their home is with us.  
19 And that will be world-class decision. And I hope you  
20 can make that world-class decision.

21 Thank you.

22 JOHN WILLIAM TEMPLETON: John William  
23 Templeton. I'm historian and creator of the California:  
24 "African American Freedom Trail."

25 The Subsequent EIR violates, procedurally and

↑ Templeton-1  
↓ [LC-UD-1]

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PH2

1 substantively, every tenet of California's pioneering  
2 Environmental Justice Law and a 1994 federal executive  
3 order.

4 I've submitted a 40-page document that spells  
5 out the many ways that the characterization of impacts  
6 fails to take into account the cumulative effects of 70  
7 years of land use inequity.

8 When I heard Planning Commissioner Ed Maley's  
9 (phonetic) objectionable remarks last week, I conducted  
10 a critical race theory analysis of this EIR to see that  
11 it substantially -- in trying to assemble this into a  
12 document, that certain groups of people are more  
13 valuable than others -- this measure breaks a covenant  
14 with the people of southeast San Francisco that \$2.2  
15 billion spent on their T Lines would link them to the  
16 rest of the City, and negatively impacts them for a  
17 generation to come.

18 In 1951, U.C.S.F. had the opportunity to play  
19 in the Cotton Bowl with the condition that they had to  
20 leave their black players behind. They turned down the  
21 invitation.

22 We shouldn't leave our impacted communities  
23 behind in order to approve this ill-conceived project.

24 CHAIRPERSON ROSALES: Thank you.

25 PAT VALENTINO: Good afternoon -- good

↑  
Templeton-1  
[LC-UD-1]  
cont.  
↓

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## Carroll, John (BOS)

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**From:** Tom Lippe <lippelaw@sonic.net>  
**Sent:** Monday, November 30, 2015 9:57 AM  
**To:** BOS Legislation, (BOS)  
**Cc:** Carroll, John (BOS); dkelly@warriors.com; CPC-WarriorsAdmin; Givner, Jon (CAT); Stacy, Kate (CAT); Malamut, John (CAT); Nuru, Mohammed (DPW); Sanguinetti, Jerry (DPW); Sweiss, Fuad (DPW); Storrs, Bruce (DPW); Sanchez, Scott (CPC); Jones, Sarah (CPC); Rodgers, AnMarie (CPC); Starr, Aaron (CPC); Pearson, Audrey (CAT); Rahaim, John (CPC); Bollinger, Brett (CPC); Ionin, Jonas (CPC); kaufhauser@warriors.com; CMiller@stradasf.com; BOS-Supervisors; BOS-Legislative Aides; Calvillo, Angela (BOS); Somera, Alisa (BOS); Patrick Soluri; Osha Meserve; Susan Brandt-Hawley  
**Subject:** Mission Bay Alliance, Warriors EIR CEQA Appeal; Appellants' Partial Brief, 1st of 4 emails  
**Attachments:** C020m SENT SEIR Appeal Open Brief to BOS.pdf; Exhs 1-4 SENT Appeal EIR Brf Exhs 1-4 compress.pdf  
**Categories:** 150990

Dear Clerk of the Board of Supervisors

Attached, in .pdf format please find the above referenced appeal brief with exhibits.

Due to the size of the files, the brief and exhibits it will be transmitted in four (4) separate emails.

This email is the first of four. Attached are

- Appellant's Partial Brief Re: Public Comment, Air Quality, Transportation, Water Quality, Biological, and Noise
- Exhibits 1-4 of 15

Eighteen hard copies of same will be hand delivered to your office today by 12noon.

Thank you for your attention to this matter.

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On 11/24/2015 9:25 AM, Carroll, John (BOS) wrote:

Good morning,

I am resending this message in order to update the recipients list for this and future document distributions. If you received this message previously, feel free to ignore these links; I have not updated them.



The Office of the Clerk of the Board has scheduled a hearing date for Special Order before the Board of Supervisors on **December 8, 2015, at 3:00 p.m.** Please find linked below a letter regarding the Final Subsequent Environmental Impact Report certification and Tentative Map appeals for the proposed Golden State Warriors Event Center Project, as well as direct links to the Office of Community Investment and Infrastructure's timely filing determination for the CEQA appeal.

[Clerk of the Board Letter Re: FSIER Appeal - November 23, 2015](#)

[OCII Memo Re: FSEIR Appeal - November 16, 2015](#)

[Clerk of the Board Letter Re: Tentative Map Appeal - November 23, 2015](#)

I invite you to review the entirety of both matters on our [Legislative Research Center](#) by following the links below.

[Board of Supervisors File No. 150990 - FSEIR Appeal](#)

[Board of Supervisors File No. 151204 - Tentative Map Appeal](#)

Thank you,

**John Carroll**  
**Legislative Clerk**

Board of Supervisors

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**Before the San Francisco Board of Supervisors**

**Appeal of Subsequent Environmental Impact Report for the  
Warriors Arena Project  
Commission on Community Investment and Infrastructure  
Resolutions 69-2015 and 70-2015**

**Hearing Date: December 8, 2015**

**APPELLANTS' PARTIAL BRIEF**

Re: Public Comment, Air Quality, Transportation,  
Water Quality, Biological, and Noise

Submitted By:

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## **List of Exhibits**

1. Paul Rosenfeld and Jessie Jaeger, letter to Thomas Lippe, November 20, 2015.
2. Excerpts from EIR for the 801 Brannan St - 1 Henry Adams St Project, June 22, 2011, pp. 1, 265-266, 278-285, cited in Exhibit 1.<sup>1</sup>
3. Excerpts from EIR for 706 Mission Street- The Mexican Museum and Residential Tower Project, June 27, 2012, pp. 1, IV.G.20, IV.G.31 to IV.G.50, cited in Exhibit 1.<sup>2</sup>
4. San Francisco Department of Public Health description of Article 38 of the San Francisco Health Code.<sup>3</sup>
5. San Francisco Health Code, Article 38.
6. Preliminary Project Assessment, San Francisco Planning Department, July 29, 2015.<sup>4</sup>
7. South Coast Air Quality Management District, Final –Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds October 2006, cited in Exhibit 1, fn 10.
8. California Air Resources Board web page re Diesel And Health Research, cited in Exhibit 1, fn 11
9. Excerpt from Commission on Community Investment and Infrastructure Resolution No. 62 - 2015, Attachment A, FY 2015-16 Budget, Amended October 20, 2015.
10. November 6, 2015, Budget and Legislative Analyst Report to the Budget and Finance Committee (“Nov 6 Budget Analyst Report”).
11. November 17, 2015, letter report to Thomas Lippe authored by traffic engineer Dan Smith regarding Third St. LRT station.
12. November 28, 2015, letter report Thomas Lippe authored by traffic engineer Dan Smith regarding SEIR.

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<sup>1</sup>Available at <http://www.sfplanning.org/index.aspx?page=1828>

<sup>2</sup>available at <http://www.sf-planning.org/index.aspx?page=1828>.

<sup>3</sup>Available at:<https://www.sfdph.org/dph/EH/Air/Article38.asp>.

<sup>4</sup>available at: <http://www.sf-planning.org/ftp/files/notice/2015-004256PPA.pdf>.



13. Selected Walking Distance Maps to Arena Site.
14. Selected UCSF Emergency Access Routes.
15. Excerpts from San Francisco CEQA Documents for the following projects: 5M, 222 Second Street, 801 Brannan and One Henry, 222 Second St, 706 Mission Street, 850 Bryant, Academy of Art, Eastern District Rezoning, Moscone Center Expansion, SF Housing Element, Second Street Improvement, SF Museum of Modern Art Expansion, 255 7<sup>th</sup> St, Pier 70.



## Reference Abbreviations

### Air Quality

July 19 Gilbert	July 19, 2015, letter from Greg Gilbert of Autumn Wind Associates at FSEIR, Vol.6, p. Com-96.
July 20 SWAPE	July 20, 2015, letter from Paul Rosenfeld and Jessie Jaeger of SWAPE at FSEIR, Vol.6, p. Com-104.
July 26 Lippe	July 26, 2015, letter from Thomas Lippe to OCII and Planning Department re Air Quality Impacts including all exhibits identified in and attached to said letter at FSEIR, Vol.6, p. Com-86.
October 30 Gilbert	October 30, 2015, letter from Greg Gilbert of Autumn Wind Associates, submitted to OCII on November 3, 2015.
Nov 2 Lippe FSEIR	November 2, 2015, letter from Thomas Lippe to OCII and Planning Department re: Comments on Final Subsequent Environmental Impact Report for the Warriors Arena Project Re Air Quality, Transportation, Hydrology, Water Quality, Biological, and Noise Impacts.
Nov 2 Farrow FSEIR	November 2, 2015, letter from John Farrow, attached as Exhibit A to Lippe Nov 2 FSEIR.
Nov 2 SWAPE	November 2, 2015, letter report from Paul Rosenfeld and Jessie Jaeger of SWAPE to Thomas Lippe, attached as Exhibit 1 to Nov 2 Farrow FSEIR.
Nov 2 Farrow FSEIR, Exhibit 2	“Health Risk Assessments for Proposed Land Use Projects,” California Air Pollution Control Officers Association 2009, attached as. <sup>5</sup>
Nov 2 Farrow FSEIR, Exhibit 3	CEQA Air Quality Handbook, A Guide for Assessing the Air Quality Impacts for Projects Subject to CEQA Review, San Luis Obispo Air Pollution Control District 2012, attached as . <sup>6</sup>

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<sup>5</sup>[http://www.capcoa.org/wpcontent/uploads/2012/03/CAPCOA\\_HRA\\_LU\\_Guidelines\\_8-6-09.pdf](http://www.capcoa.org/wpcontent/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf).

<sup>6</sup>[http://www.slocleanair.org/images/cms/upload/files/CEQA\\_Handbook\\_2012\\_v2%20%28Updated%20Sept%202015%29.pdf](http://www.slocleanair.org/images/cms/upload/files/CEQA_Handbook_2012_v2%20%28Updated%20Sept%202015%29.pdf).



- Nov 2 Farrow FSEIR, Exhibit 4  
Mission Bay Land Use Plan, November 2005.<sup>7</sup>
- Nov 2 Farrow FSEIR, Exhibit 5  
“Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessment.” Office of Environmental Health Hazard Assessment, February 2015.<sup>8</sup>
- Nov 2 Farrow FSEIR, Exhibit 6  
Adoption of the Revised Air Toxics Hot Spots Program Technical Support Document for Cancer Potency Factors, Office of Environmental Health Hazard Assessment, June 1, 2009.<sup>9</sup>
- Nov 2 Farrow FSEIR, Exhibit 7  
Adoption of the Revised Air Toxics Hot Spots Program Risk Assessment Guidelines: Revised Technical Support Document for Exposure Assessment and Stochastic Analysis, Office of Environmental Health Hazard Assessment, August 27.<sup>10</sup>
- Nov 2 Farrow FSEIR, Exhibit 8  
Technical Support Document for Exposure Assessment and Stochastic Analysis, Office of Environmental Health Hazard Assessment, August 2012.<sup>11</sup>
- Nov 20 SWAPE November 20, 2015, letter report from Paul Rosenfeld and Jessie Jaeger of SWAPE to Thomas Lippe, attached as Exhibit 1 to this brief.

### **Transportation**

- July 27 Lippe SEIR July 27, 2015, letter from Thomas Lippe to OCII and Planning Department re Transportation Impacts at F, Vol. 6, p. Com-117, including all exhibits listed on page 20 thereof, including:

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<sup>7</sup><http://sfocii.org/Modules/ShowDocument.aspx?documentid=783>.

<sup>8</sup>[http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html).

<sup>9</sup>[http://www.oehha.ca.gov/air/hot\\_spots/tsd052909.html](http://www.oehha.ca.gov/air/hot_spots/tsd052909.html).

<sup>10</sup>[http://www.oehha.ca.gov/air/hot\\_spots/tsd082712.html](http://www.oehha.ca.gov/air/hot_spots/tsd082712.html).

<sup>11</sup>[http://www.oehha.ca.gov/air/hot\\_spots/pdf/2012tsd/Chapter3\\_2012.pdf](http://www.oehha.ca.gov/air/hot_spots/pdf/2012tsd/Chapter3_2012.pdf).



July 23 Smith	Exhibit 1 thereto, July 23, 2015, letter to Tom Lippe from traffic engineer Dan Smith at FSEIR, Vol. 6, p. Com-127; and
July 21 Wymer	Exhibit 2 thereto, July 21, 2015, letter to Tom Lippe from traffic engineer Larry Wymer at FSEIR, Vol. 6, p. Com-141.
Nov 2 Lippe FSEIR	November 2, 2015, letter from Thomas Lippe to OCII and Planning Department re: Comments on Final Subsequent Environmental Impact Report for the Warriors Arena Project Re Air Quality, Transportation, Hydrology, Water Quality, Biological, and Noise Impacts.
Nov 2 Smith FSEIR	November 2, 2015, letter from Dan Smith, Exhibit F to Nov 2 Lippe FSEIR;
Nov 2 Wymer FSEIR	November 2, 2015, letter from Larry Wymer, Exhibit G to Nov 2 Lippe FSEIR;
Nov 10 Smith FSEIR Access	November 10, 2015, letter from Dan Smith to Tom Lippe re Emergency Access, which is attached hereto as Exhibit 4 to the Alliance's November 13, 2015, Notice of Appeal.
Nov 10 Smith FSEIR Port	November 10, 2015, letter from Dan Smith to Tom Lippe re Port Parking Facilities, which is attached hereto as Exhibit 5 to the Alliance's November 13, 2015, Notice of Appeal.
Nov 13 Smith FSEIR King	November 13, 2015, letter from Dan Smith to Tom Lippe re King Street Electrical Work, which is attached hereto as Exhibit 6 to the Alliance's November 13, 2015, Notice of Appeal.
Nov 17 Smith FSEIR 3rd St.	November 17, 2015, letter report to Thomas Lippe authored by traffic engineer Dan Smith regarding Third St. LRT station.
Nov 28 Smith FSEIR.	November 28, 2015, letter report Thomas Lippe authored by traffic engineer Dan Smith regarding SEIR.



## **Hydrology, Water Quality, and Biological**

July 24 Lippe	July 24, 2015, letter from Thomas Lippe to OCII and Planning Department re Impacts on Hydrology, Water Quality, and Biological Resources at FSEIR, Vol. 6, p. Com-147, including:
July 21 Hageman	July 21, 2015, letter to Thomas Lippe from Matt Hageman at FSEIR, Vol. 6, p. Com-155.
July 21 Ringelberg	July 21, 2015, letter to Thomas Lippe from Erik Ringelberg and Kurt Balasek at FSEIR, Vol. 6, p. Com-159.
July 22 Cline	July 22, 2015, letter report by geotechnical engineer Martin Cline and Kurt Balasek, regarding Hazardous Materials at FSEIR, Vol. 6, p. Com-70 (attached as Exhibit B to July 26, 2015 Soluri Meserve letter to OCII re DSEIR at FSEIR, Vol. 6, p. Com-48.).
Nov 2 Lippe FSEIR	November 2, 2015, letter from Thomas Lippe to OCII and Planning Department re: Comments on Final Subsequent Environmental Impact Report for the Warriors Arena Project Re Air Quality, Transportation, Hydrology, Water Quality, Biological, and Noise Impacts.
Nov 2 Hageman	November 2, 2015, letter to Thomas Lippe from Matt Hageman, Exhibit H to Nov 2 Lippe FSEIR.
Nov 2 BSK	November 2, 2015, letter from Erik Ringelberg and Kurt Balasek of BSK Associates, Exhibit I to Nov 2 Lippe FSEIR.
Nov 2 Ringelberg	November 2, 2015, letter from Erik Ringelberg, Exhibit J to Nov 2 Lippe FSEIR.
July 16 BSK Wetland	July 16, 2015, BSK Technical Memorandum Regarding the Proposed Warrior Arena Wetland Features by Erik Ringelberg and Kevin Grove, Exhibit K to Nov 2 Lippe FSEIR.
Oct 29 BSK Wetland	October 29, 2015, Draft Waters and Wetland Delineation Report Proposed Mission Bay Development, Blocks 29-32 San Francisco, California, by Erik Ringelberg and Kevin Grove of BSK Associates, Exhibit L to Nov 2 Lippe FSEIR.



Oct 7, SM Law, CWA 404

October 7, 2015, Letter to the San Francisco Planning Department regarding Supplemental Comments on Environmental Review for Warriors Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 – Clean Water Act 404 and CZMA Consistency

### **Noise**

July 25 Lippe	July 25, 2015, letter from Thomas Lippe to OCII and Planning Department re Noise Impacts, at FSEIR, Vol. 6, p. Com-109, including all the exhibits attached thereto.
July 24 Hubach	July 24, 2015, letter to Thomas Lippe from acoustic engineer Frank Hubach at FSEIR, Vol. 6, p. Com-113,
Nov 2 Lippe FSEIR	November 2, 2015, letter from Thomas Lippe to OCII and Planning Department re: Comments on Final Subsequent Environmental Impact Report for the Warriors Arena Project Re Air Quality, Transportation, Hydrology, Water Quality, Biological, and Noise Impacts.
Nov 2 Hubach	November 2, 2015, letter to Thomas Lippe from acoustic engineer Frank Hubach, Exhibit S to Nov 2 Lippe FSEIR..



## I. INTRODUCTION

This office represents the Mission Bay Alliance (“Alliance”), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 (“Warriors Arena Project” or “Project”).

The Mission Bay Alliance submits this brief in support of its appeal of Commission on Community Investment and Infrastructure Resolution 69-2015, certifying the Final Subsequent Environmental Impact Report for the Warriors Arena Project, and Resolution 70-2015, adopting CEQA Findings for the Warriors Arena Project, both approved on November 3, 2015.

The grounds for this appeal are set forth in this brief and the two companion briefs submitted by my co-counsel, Susan Brandt-Hawley and Soluri Meserve; in the Alliance’s November 13, 2015, Notice of Appeal; and in all previously submitted Alliance comment letters and their exhibits.<sup>12</sup> This brief discusses certain of these grounds in more detail.

This brief discusses several categories of legal defects in the SEIR. First, the DSEIR omitted a large number of resource topics from its scope based on an erroneous use of CEQA “tiering.” This issue is generally discussed in its own section in the brief submitted by Soluri Meserve, and also in the sections relating to specific resources where the evidence requires including of the resource in the SEIR.

Second, regarding resource topics included in the SEIR, the Draft SEIR’s informational deficiencies are described in sections relating to each resource. Where new information, changed circumstances, or changes in the Project coming to light after close of comment on the DSEIR require recirculation of a revised DSEIR, this is also discussed in each section relating to each resource topic.

Third, where the Final SEIR’s responses to substantive comments on the Draft SEIR are inadequate, this is described in relation to the Draft SEIR’s informational deficiencies for each resource topic.<sup>13</sup>

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<sup>12</sup>References to previous comment letters are abbreviated. See “Reference Abbreviations.”

<sup>13</sup>Where comments seek omitted facts or analysis essential to a draft EIR’s conclusions, the failure to correct those omissions “renders the EIR defective as an informational document.” (*California Oak Foundation v. City of Santa Clarita* (2005) 133 Cal.App.4th 1219, 1244.) The Final SEIR’s responses to substantive comments on the Draft SEIR must contain fact-based analysis. (*People v. County of Kern* (1974) 39 Cal.App.3d 830, 841-842 (duty to provide “good faith, reasoned analysis in response”; Guidelines, § 15088(c) [“Conclusory statements unsupported by factual information will not suffice”]; *Cleary v. County of Stanislaus* (1981) 118 Cal.App.3d 348, 359; see also, *Santa Clarita Organization for Planning the Environment v. County of Los Angeles* (“SCOPE”) (2003) 106 Cal.App.4th 715, 723 [“Problems raised by the public and responsible experts require a good faith reasoned analysis in response. [Citation.] The



## II. DISCUSSION

Preliminarily, the Alliance notes this Board's role and jurisdiction in this proceeding is not limited by Commission on Community Investment and Infrastructure Resolution No. 33-2015. Under both the Dissolution Law (Health and Safety Code § 34170 et seq) and Ordinance No. 215-12, this Board is the legislative authority governing the Successor Agency. Therefore, this appeal is authorized and governed by CEQA sections 21151(c) and 21177.

Also, the City's role in the permit process to date demonstrates the City is no mere responsible agency under CEQA. The City is the lead agency, because OCII is a department of the City. Alternatively, the City is a co-lead agency with OCII. The facts supporting this conclusion are manifold, including:

- The Commission on Community Investment and Infrastructure consists of five members appointed by the Mayor, subject to confirmation by a majority of the Board of Supervisors.
- OCII's budget must be approved by the Board of Supervisors.
- The SEIR preparers include only three people from OCII, but seven from the Planning Department, one from the City Attorneys office, two from the Mayor's Office of Economic Workforce and Development, and two from the City's Municipal Transportation Agency. (SEIR, Vol 3, pp. 9-1, 2.)
- The Notice of Availability of the DSEIR instructed that comments were to be submitted to "Ms Tiffany Bohee, OCII Executive Director, c/o Mr. Brett Bollinger, San Francisco Planning Department."
- The Mayor has been an outspoken advocate of bringing the Warriors to San Francisco and of building this Project in this location since the Warriors's first proposed it. (See news articles attached to November 30, 2015, Appeal Brief submitted by Susan Brandt-Hawley as Exhibit 1.)
- Of the 29 salaried employee positions at OCII, 21 work for the City, but on OCII projects. (See Commission on Community Investment and Infrastructure Resolution No. 62 - 2015, Attachment A, FY 2015-16 Budget, Amended October 20, 2015, attached hereto as Exhibit 1, p. 9.)
- The City is treating this Project like a City-sponsored public works project for which it would be the lead agency. The Transportation Management Plan ("TMP") and Transit Service Plan ("TSP"), which are defined as components of the Project, rely for their implementation on purely voluntary services by various City departments. See Section C.9 below. The Transportation Management Plan necessitates ongoing implementation by the SFMTA, the San Francisco Police

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requirement of a detailed analysis in response ensures that stubborn problems or serious criticism are not "swept under the rug."].)



Department, and Public Works. (See Exhibit 10, attached hereto.) Funding for both the TMP and TSP are by the City's voluntary appropriation of General Fund revenues, which are within the discretion of every future Board of Supervisors in perpetuity. (Exhibit 10, pp. 6-7.)

Consequently, the Board of Supervisors must decide whether to certify the SEIR and whether it can make the findings required by CEQA Guideline section 15090(a) based on its consideration and determination of all of the issues presented; and the Board must do so using its independent judgment.

## **A. PUBLIC COMMENT.**

### **1. The OCII Thwarted Public Comment on the SEIR.<sup>14</sup>**

The October 23, 2015, notice of publication of the Response to Comments informed the public they would have no further opportunity to comment on the FSEIR/RTC, stating:

The Commission will consider certification of the Final SEIR on this project on November 3, 2015. ¶ The Commission does not conduct a hearing to receive comments on the Responses to Comments document, and no such hearing is required by the California Environmental Quality Act. The public review period on the Draft SEIR ended on July 27, 2015.

(FSEIR, Vol. 4.) But the OCII hearing agenda for November 3, 2015, published on October 29, 2015, suggested that public comment on the FSEIR/RTC would be heard at the hearing, stating:

Special Meeting Agenda Given the Potential for a Large Number of Public Comments, the Commission May Limit the Time Allocated for Each Individual Speaker to Two Minutes or Less. It Is Strongly Recommended That Members of the Public Who Wish to Address the Commission Should Fill out a "Speaker Card" and Submit the Completed Card to the Commission Secretary.

(Items 5(a), 5(b), 5(c) 5(d) and 5(e) related to Golden State Warriors Event Center and Mixed-Use Development on Blocks 29-32 *will be heard together*, but acted on separately)

(November 3, 2015, OCII Hearing Agenda, p. 2 (italics added).) Item 5(a) was Resolution 69-2015 certifying the SEIR, and Items 5(a), 5(b), 5(c) 5(d) and 5(e) were the only items on the agenda for hearing.

The October 23, 2015, notice of publication is inconsistent with CEQA section 21177(a), which contemplates public comment on EIRs up to the end of the hearing at which the project is

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<sup>14</sup>Nov. 2 Lippe FSEIR, p. 1.



approved. Therefore, the October 23, 2015, notice of publication frustrated the ability of the public to comment. The Board should remedy this misstep by recirculating the FSEIR with full disclosure that the public may comment on the FSEIR/RTC.

**B. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO AIR QUALITY IMPACTS.**

**1. The City Cannot Use the SEIR's Thresholds of Significance for Criteria Air Pollutants until it Formally Adopts Them in a Rule-making Procedure.**

The DSEIR's thresholds of significance are:

For the impacts analyzed in this section, the project would have a significant impact related to air quality if it were to:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in a cumulative air quality impact in combination with past, present and reasonably foreseeable future projects in the vicinity.

(DSEIR 5.4-23.)

For criteria pollutants, the DSEIR uses numerical thresholds of significance borrowed from the Bay Area Air Quality Management District ("BAAQMD") for ROG (54 lbs/day); NO<sub>x</sub> (54 lbs/day); Exhaust PM<sub>10</sub> (82 lbs/day); Exhaust PM<sub>2.5</sub> (54 lbs/day).

The potential for a project to result in a cumulatively considerable net increase in criteria air pollutants that may contribute to an existing or projected air quality violation is based on the State and federal Clean Air Acts emissions limits for stationary sources. To ensure that new stationary sources do not cause or contribute to a violation of an air quality standard, BAAQMD Regulation 2, Rule 2 requires that any new source that emits criteria air pollutants above a specified emissions limit must offset those emissions. For ozone precursors ROG and NO<sub>x</sub>, the offset emissions level is an annual average of 10 tons per year (or 54 pounds (lbs.) per day). These levels represent emissions below which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants that could result in increased health effects.



(DSEIR p. 5.4-25; see also p. 5.4-31.)

The City uses these numerical thresholds of significance for virtually all land use development projects in the city that require CEQA review. This is shown by excerpts from recent Environmental Impacts Reports and Negative Declarations attached to the July 26 Lippe letter as Exhibits 4 through 16. All of them use the BAAQMD numbers as the thresholds of significance for these pollutants. Therefore, the City is required to undertake its own rule-making proceeding to adopt these thresholds as its own and determine in a public process that they are supported by substantial evidence.

(b) Thresholds of significance to be adopted for general use as part of the lead agency's environmental review process must be adopted by ordinance, resolution, rule, or regulation, and developed through a public review process and be supported by substantial evidence.

(c) When adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.

(CEQA Guideline, § 15064.7.) Since the City has not formally adopted the air quality significance thresholds in a public process supported by substantial evidence, but continues to consistently use these thresholds on virtually all CEQA Projects in the City, it cannot use these thresholds in this EIR. (See July 26 Lippe, p. 3; July 19 Gilbert, p. 14.)

The Alliance made these comments on the DSEIR. (See July 26 Lippe, p. 3; July 19 Gilbert, p. 14.) The RTC mostly ignores the comment, and takes the position that it can use the BAAQMD's thresholds on as many projects as it wants without formally adopting them. (FSEIR, Vol. 5, p. 13.3-5.) This position directly contradicts CEQA Guideline 15064.7.

## **2. The DSEIR's Numerical Thresholds of Significance for Criteria Pollutants (Ozone Precursors, PM10, PM2.5) Borrowed from the BAAQMD Are Invalid.**

As noted above, for its impact assessment and mitigation strategy for criteria pollutants, the DSEIR uses numerical thresholds of significance borrowed from the BAAQMD. But the DSEIR cannot merely reference a project's compliance with another agency's regulations. Lead agencies must conduct their own fact-based analysis of project impacts, regardless of whether the project complies with other regulatory standards.

The result of using these thresholds is a deeply misleading impact assessment and mitigation strategy because using these invalid thresholds allows the DSEIR to avoid finding impacts are significant, and it allows the DSEIR to understate the severity of impacts deemed "significant" because it implies that most of the quantity of emissions below the thresholds are not "significant." Also, using these invalid thresholds underestimates the degree of mitigation



required to reduce significant impacts to less than significant, and therefore, the DSEIR curtails its consideration of the feasibility of additional mitigation measures that could further substantially reduce emissions.

The numerical thresholds borrowed from the BAAQMD are logically and legally invalid, and they are not supported by substantial evidence. The thresholds are contained in the BAAQMD's "CEQA Air Quality Guidelines."<sup>15</sup> But neither the DSEIR or the BAAQMD CEQA Air Quality Guidelines describe any evidence that might support the use of these thresholds. The same is true of BAAQMD's other publications relating to these thresholds, i.e., Appendix D of the BAAQMD CEQA Air Quality Guidelines, BAAQMD's Revised Draft Options and Justification Report, (October 2009), and the Bay Area AQMD Proposed Air Quality CEQA Thresholds of Significance, published May 3, 2010.

While these BAAQMD publications purport to include substantial evidence supporting the use of these thresholds for all criteria air pollutants for which the Bay Area is in non-attainment, they do not. Instead, the BAAQMD CEQA Air Quality Guidelines merely provide policy rationales for why it is a good idea to have thresholds of significance. Nowhere does the document actually provide evidence for why any number of pounds per day below, for example, 54 for NOx or ROG, is not "cumulatively considerable."

The BAAQMD's Revised Draft Options and Justification Report (October 2009) states the thresholds "are based on the trigger levels for the federal New Source Review (NSR) Program and BAAQMD's Regulation 2, Rule 2 for new or modified sources." (See page 2.) These New Source Review Program rules provides that any new source that will emit pollutants above the levels stated in the left hand column of Table 4 (e.g., 10 lbs/day of NOx and ROG) must impose "Best Available Control Technology ("BACT")." (Id. pp. 16-17.) These rules also provide that any new source emitting pollutants above the levels stated in the right hand column of Table 4 (e.g., 54 lbs/day of NOx and ROG) must offset all emissions. (Id. pp. 16-17.)

In addition to the inherent flaws in the NSR rules described above, it is inappropriate to base the EIR's significance determination for purposes of CEQA on the Air District's "triggers" for an entirely different regulatory program, i.e., New Source Review under the Clean Air Act ("CAA").<sup>16</sup> One of CEQA key purposes is to require "disclosure" of significant impact, and it allows agencies to approve projects where emissions exceed its thresholds of significance after feasible mitigations are first adopted and as long as the project's benefits outweigh the

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<sup>15</sup>The BAAQMD CEQA Air Quality Guidelines were published May 2010, and updated May 3, 2011.

<sup>16</sup>The CAA establishes health-based ambient air quality standards and ranks air districts nationwide based on their level of attainment of those standards. The CAA also establishes a timetable for air districts to reach attainment, and authorizes specific penalties where a deadline is not met. CEQA, on the other hand, requires lead agencies to analyze and discuss significant impacts on air quality, and to continue to mitigate those impacts so long as they remain significant or no additional mitigation is feasible.



environmental harm. The CAA, in contrast, is not primarily concerned with public disclosure, and it provides absolute limits on emissions (i.e., the offset triggers in Table 4) that cannot be exceeded under any circumstances. A standard that shuts down economic activity (i.e., the CAA offset standard) is necessarily and appropriately different than a standard (i.e. a CEQA threshold of significance) that requires disclosure of the impact to the public and the adoption of feasible mitigation measures.

Indeed, if it is possible to borrow any CAA NSR standard for use as a CEQA threshold of significance, it would be the BACT triggers in Table 4 (i.e., when ROG or NO<sub>x</sub> emissions exceed only 10 lbs/day), because those standards force the adoption of feasible mitigation measures, similar to CEQA's thresholds of significance.

NSR Regulation 2, Rule 2 for new or modified sources requires that if ozone precursor emissions exceed 54 lbs per day (i.e., 10 tpy), the polluter must offset *all* emissions. In contrast, the DSEIR Mitigation Measure M-AQ-2b only requires offsetting emissions above 54 lbs per day (i.e., 10 tpy). This BACT standard is much lower than the NSR offset standard and the DSEIR's threshold of significance of 54 lbs/day. But, there is no parallel requirement in the DSEIR for imposing anything like BACT to this Project's construction or operational emissions that exceed 10 lbs/day.

Regarding NSR Regulation 2, Rule 2's offset standards (i.e., 54 lbs/day for ROG or NO<sub>x</sub>), the BAAQMD's Revised Draft Options and Justification Report (October 2009) observes: "These levels represent a cumulatively considerable contribution."<sup>17</sup> But there is no evidence that emissions below these thresholds are not also "cumulatively considerable."

Moreover, regardless of any evidence included in these other BAAQMD documents, no such evidence can overcome a fundamental logical and legal flaw in the EIR's assumption that these thresholds are appropriate for the purpose for which the DSEIR uses them. Using the DSEIR's logic, if the City finds that one project will add 53 lbs/day of ozone precursors, it is considered a less-than-significant impact, but if that project will add 55 lbs/day of ozone precursors, it is considered significant. Yet, if the City approved two new large projects in the area in the same 2- or 3-year period, or where operational impacts cause increased emissions, each emitting 53 lbs/day of ozone precursors, it is considered a less-than-significant impact even though the total of the two added together equals 106 lbs/day of ozone precursors!

This scenario is not hypothetical; it is unfolding in San Francisco, and in the Mission Bay area now. (See July 21 Wymer, Table 3, for a list of project undergoing or about to undergo construction in this area of San Francisco.)<sup>18</sup> As a result, the thresholds violate a fundamental CEQA principal that regardless of whether projects' incremental impacts are deemed

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<sup>17</sup>July 26 Lippe, Exhibit 4, p. 2.

<sup>18</sup>July 27 Lippe, Exhibit 2.



insignificant in isolation, they may be cumulatively significant.

The RTC implies that because ozone pollution is getting better, the BAAQMD thresholds are validated. Air Quality specialist Greg Gilbert's October 30, 2015, comments on the OCII's responses are essential reading. The following excerpt provides a flavor of the evidence showing why the response is unfounded and unsupported:

In our comments submitted previously on the DSEIR, we noted that the BAAQMD's CEQA thresholds of significance, applied by the Lead Agency to evaluate the Event Center project's emission impacts, were developed non-scientifically from NSR values that were designed to counterbalance anticipated growth in stationary source facility emissions under the jurisdiction of the BAAQMD. An inherent problem with using NSR emission thresholds for constructing CEQA thresholds is that the 9-county air basin's stationary sources represent no more than a small percentage of the total emissions inventory.

Vehicle emissions within the basin, by contrast, represent the lion's share of criteria pollutants and are chiefly responsible for the basin's ozone nonattainment designations that stretch back decades. Similarly, the region's nonattainment of particulate standards has been heavily influenced by vehicle emissions. To exemplify, fully 84% of NO<sub>x</sub> (ozone precursor) emissions in the Bay Area air basin are emitted by vehicles, and not by stationary sources. The region has been designated nonattainment for PM<sub>2.5</sub>; fine particulate is generated almost entirely by combustion (including internal combustion occurring in vehicle engines), and monitored values in the region continue to climb annually; 28% of the total inventory is attributed to vehicles. Importantly, population (people) regionally continues its historical growth in lockstep with numbers of vehicles and vehicle-miles-traveled; despite substantial advances in technical on-vehicle controls and reductions in tailpipe emissions of both NO<sub>x</sub> and particulates over the years, the region continues to exceed federal and state air quality standards.

As we noted previously, establishing CEQA thresholds of significance levels using NSR levels is to automatically undercut emission reductions that should be obtained from each new "indirect source" (such as the Event Center that will attract new vehicle trips and related emissions) subject to CEQA review. By using outdated, non-scientifically designed NSR values, CEQA thresholds adopted by BAAQMD and borrowed for use by OCII will automatically underrepresent air emission significance, particularly when evaluated against past nonattainment designations and PM<sub>2.5</sub> ambient air monitoring values that, despite recession effects, continue to reflect a slowly worsening trend line.

(Oct 30 Gilbert, pp. 2-3.)



The significance of a cumulative impact depends on the environmental setting in which it occurs, especially the severity of existing environmental harm. (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 120 (“CBE”) “[T]he relevant question”... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether “any additional amount” of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant. [footnote omitted]”); *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-721.)

This area is in “non-attainment” status under federal and state clean air laws for these criteria pollutants; and this project, along with many others, will substantially contribute to that existing significant adverse impact. There is no evidence to the contrary. The City’s untenable position is that public agencies in the Air Basin can approve project after project, each emitting (in the case of ozone precursors) up to 54 lbs/day of new and additional ozone precursors, without ever causing a cumulatively considerable increase in air pollution. This approach runs counter to the reason for conducting cumulative impact analysis. If the City (and other agencies in the Air Basin) continues to find that projects that make air quality worse - when it is already significantly degraded - do not have a significant adverse cumulative impact on air quality, then the City will have no legal obligation to adopt feasible mitigation measures to reduce the significant cumulative impact.

Here, the BAAQMD CEQA Guidelines present ample evidence that the Bay Area’s air quality is degraded and has been for a very long time. Therefore, the idea that agencies can forever approve multiple projects that each add 53 lbs of ROG and NOx to the air every day and never be deemed cumulatively considerable is absurd. Rather than explain why this is not true, the BAAQMD documents simply ignore the issue.

The DSEIR’s use of the BAAQMD thresholds of significance is erroneous as a matter of law for several other reasons.<sup>19</sup> The DSEIR cannot merely reference a project’s compliance with another agency’s regulations. Lead agencies must conduct their own fact-based analysis of project impacts, regardless of whether the project complies with other regulatory standards. The DSEIR uses BAAQMD’s thresholds of significance uncritically, without any factual analysis of its own, in violation of CEQA.<sup>20</sup> This uncritical application of the BAAQMD’s thresholds of

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<sup>19</sup> *Endangered Habitats League v. County of Orange* (2005) 131 Cal.App.4th 777, 793 (“The use of an erroneous legal standard [for the threshold of significance in an EIR] is a failure to proceed in the manner required by law that requires reversal.”).

<sup>20</sup> *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109 [underscore emphasis added], citing *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 114 (“CBE”); accord *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 342 [“A threshold of significance is not conclusive...and does not relieve a public agency of the duty to consider the evidence under the fair argument standard.”].)



significance represents a failure of the City to exercise its independent judgment in preparing the DSEIR.<sup>21</sup> Just as disagreement from another agency does not deprive a lead agency of discretion under CEQA to judge whether substantial evidence supports its conclusions,<sup>22</sup> agreement from another agency does not relieve a lead agency of separately discharging its obligations under CEQA. The BAAQMD CEQA Guidelines do not provide any factual explanation as to why the 54 lbs. per day standard represents an appropriate threshold for judging the significance of project-level ozone pollution impacts. More importantly, the DSEIR also fails to include any such explanation, and is therefore inadequate as a matter of law.<sup>23</sup> It is well-settled that compliance with other regulatory standards cannot be used under CEQA as a basis for finding that a project's effects are insignificant, nor can it substitute for a fact-based analysis of those effects.<sup>24</sup>

Also, the DSEIR's reliance on information not contained in the DSEIR for purposes of showing these thresholds are supported by substantial evidence violates CEQA's informational requirements. (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 405 ["whatever is required to be considered in an EIR must be in that formal report; what any official might have known from other writings or oral presentations cannot supply what is lacking in the report"]; *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442 ["[I]nformation 'scattered here and there in EIR appendices' or a report 'buried in an appendix,' is not a substitute for 'a good faith reasoned analysis'"], 443 ["The audience to whom an EIR must communicate is not the reviewing court but the public and the government officials deciding on the project. That a party's briefs to the court may explain or supplement matters that are obscure or incomplete in the EIR, for example,

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<sup>21</sup> *Friends of La Vina v. County of Los Angeles* (1991) 232 Cal.App.3d 1446.

<sup>22</sup> *California Native Plant Society v. City of Rancho Cordova* (2009) 172 Cal.App.4th 603, 626.

<sup>23</sup> *Santiago County Water Dist. v. County of Orange, supra*, 118 Cal.App.3d 818.

<sup>24</sup> See, e.g., *Californians for Alternatives to Toxics v. Department of Food & Agriculture* (2005) 136 Cal.App.4th 1, 16 (lead agencies must review the site-specific impacts of pesticide applications under their jurisdiction, because "DPR's [Department of Pesticide Regulation] registration does not and cannot account for specific uses of pesticides..., such as the specific chemicals used, their amounts and frequency of use, specific sensitive areas targeted for application, and the like"); *Citizens for Non-Toxic Pest Control v. Department of Food & Agriculture* (1986) 187 Cal.App.3d 1575, 1587-1588 (state agency applying pesticides cannot rely on pesticide registration status to avoid further environmental review under CEQA); *Oro Fino Gold Mining Corporation v. County of El Dorado* (1990) 225 Cal.App.3d 872, 881-882 (rejects contention that project noise level would be insignificant simply by being consistent with general plan standards for the zone in question). See also *City of Antioch v. City Council of the City of Pittsburg* (1986) 187 Cal.App.3d 1325, 1331-1332 (EIR required for construction of road and sewer lines even though these were shown on city general plan); *Kings County Farm Bureau v. City of Hanford, supra*, 221 Cal.App.3d at pp. 712-718 (agency erred by "wrongly assum[ing] that, simply because the smokestack emissions would comply with applicable regulations from other agencies regulating air quality, the overall project would not cause significant effects to air quality.").



is irrelevant ... The question is therefore not whether the project's significant environmental effects *can* be clearly explained, but whether they *were*"] (emphasis in original).)

**(a) The DSEIR's impact assessments for construction related criteria pollutants (ozone precursors, PM10, PM2.5) and TAC emissions are invalid.**

DSEIR Table 5.4-8 shows construction-related daily emissions of the ozone precursor ROG at 47 lbs/day (mitigated by Tier 2 and NOx VDECS engines) or 49 lbs/day (mitigated by Tier 4 engines) and of the ozone precursor NOx at 144 lbs/day (mitigated by Tier 2 and NOx VDECS engines) or 73 lbs/day (mitigated by Tier 4 engines).

The DSEIR's impact assessments for construction-related ozone precursor emissions are invalid because the DSEIR uses the invalid thresholds of significance discussed above.

Because NOx construction-related emissions are reported as higher than the applicable (but invalid) threshold of significance for ROG (i.e., 54 lbs/day), the DSEIR concludes the Project's impact on ozone pollution is significant. While this conclusion is correct, it is also misleading because it understates the severity of the impact deemed "significant." The DSEIR implies that the only fraction of the Project's NOx emissions that are "significant" is the fraction above 54 lbs/day. But as discussed above, this threshold of significance is invalid. Using this invalid threshold implies that most of the quantity of emissions below the threshold are not "significant." (*Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831 ["The conclusion that one of the unavoidable adverse impacts of the project will be the 'increased demand upon water available from the Santiago County Water District' is only stating the obvious. What is needed is some information about how adverse the adverse impact will be"].)

The DSEIR assumes that adoption of Mitigation Measure M-AQ-1, requiring use of off-road equipment with engines meeting Tier 2 or Tier 4 standards, will reduce construction-related ROG emissions to 47 or 49 pounds per day, respectively, which are both below the applicable (but invalid) threshold of significance for ROG (i.e., 54 lbs/day). (DSEIR, p. 5.4-33, Table 5.4-8.) But equipment meeting Tier 2 or Tier 4 standards are not sufficiently available to meet either requirement. (See July 26 Lippe, Exhibit 2.) Therefore, the impact assessment must be recalculated to more realistically estimate the percentage of construction equipment that will meet Tier 2 or 4 standards.

Also, the DSEIR incorrectly utilizes a default hauling trip length of 20-miles, provided by the California Emissions Estimator Model ("CalEEMod"), to determine the on-road hauling emissions that would occur during construction. Using this default value, rather than a site-specific trip length to the actual haul destination, results in an underestimation of the Project's construction emissions. Therefore, the impact assessment must be recalculated to realistically account for the actual haul destination of the excavation spoils. (See July 26 Lippe, p. 10; July 20 SWAPE, 2-6.)



**(1) Mitigation Measure M-AQ-1 does not comply with CEQA’s legal requirements.**

Mitigation Measure M-AQ-1 (at DSEIR, p. 5.4-35) does not comply with CEQA’s legal requirements. As discussed above, the requirement that off-road equipment meet Tier 2 standards is illusory, and therefore ineffective, because the Project Sponsor will not be able to obtain enough equipment meeting this standard. (July 26 Lippe, p. 9; July 20 SWAPE, 6-8; October 30 Gilbert, pp. 10-14.)

M-AQ-1 includes a limit on idling time of two minutes, and provides exceptions to this limit as provided in state law (DSEIR, p. 5.4-36), but utterly fails to describe what these exceptions are. The DSEIR must fully describe this measure in order for the public and City decision makers to assess its effectiveness. (See July 26 Lippe, p. 10.)

M-AQ-1 requires the Project Sponsor prepare a Construction Emissions Minimization Plan, and the Project Sponsor must certify compliance with the Plan. (DSEIR, p. 5.4-36.) This is asking the fox to guard the henhouse. (See July 26 Lippe, p. 10; July 19 Gilbert, pp. 7-10; October 30 Gilbert, pp. 14-16.)

**a. The Response to Comment AQ-6a is Inadequate.<sup>25</sup>**

Mitigation Measure M-AQ-1 requires the use of Tier 2 or better engines for all off-road equipment. The “step-downs” from Tier 4 to Tier 3 to Tier 2, or from Tier 3 to Tier 2, are allowed when Tier 4 (or Tier 3) is not “commercially available.” But step-downs from Tier 2 are not available under any scenario.

Mr. Gilbert’s July 19, 2015, letter commented that this mitigation is not feasible because there are not enough Tier 2 or better equipment available for the Project Sponsor to use. The response to this comment states that “in 2014 approximately 59 percent of all off-road equipment in the state were operating with Tier 2 engines or better” and, therefore, it appears the measure is feasible. (RTC, p. 13.13-53.)

But the response does not specify whether the diesel off-road equipment sampled included equipment in private or government fleets that are not potentially available to the Project Sponsor to use, or alternatively, whether it consisted only of equipment that is potentially available to the Project Sponsor to use. If the former is true, then the 59% sampling result is meaningless, because the relevant population to sample is equipment that is potentially available to the Project Sponsor to use. A review of Figure 4 in the document cited in footnote 20 on RTC page 13.13-53 appears to indicate that the population of equipment sampled is all equipment, including equipment that is not potentially available to the Project Sponsor to use. Therefore, the 59% sampling result appears to be meaningless.

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<sup>25</sup>July 26 Lippe, p. 9; July 20 SWAPE, 6-8; October 30 Gilbert, pp. 10-14.



Moreover, even if the population of equipment sampled is equipment that is potentially available for the Project Sponsor to use, the idea that the Project Sponsor will be able to acquire 100% of its equipment at Tier 2 or better when only 59% of the potentially available equipment is Tier 2 or higher is illogical. It is more plausible that the Project Sponsor will be able to acquire only about 59% of its equipment at Tier 2 or better.

As stated in the Nov 2 Gilbert report:

Further, the statistic provided by the Lead Agency does not say that 59% of all construction equipment vehicles in CA will meet Tier 2 or better status – rather, it says that all **off-road** vehicles do (as of 2014). All off-road vehicles are not all construction vehicles; in fact, construction vehicles are a small subset of all off-road vehicles. Moreover, the rate of compliance for construction vehicles, particularly large, expensive, long-lived ones (scrapers, excavators, pile drivers, etc.) will be far lower than the average for all off-road vehicles that include such non-construction equipment as ground support vehicles at airports, agricultural forklifts, and myriad other off-road, nonconstruction equipment types. Because the statistic represents all off-road vehicles in CA and not construction vehicles, it cannot be used to even roughly determine the proportion of construction vehicles supposedly available to the project with Tier 2 engines, VDECs, and 40% NOx control; hence, the statistic is irrelevant to the Events Center project environmental review and does nothing to refute our concerns expressed clearly at the SDEIR review stage.

(November 2 Gilbert, p. 11.)

**b. The Response to Comment AQ-6e is Inadequate.<sup>26</sup>**

Mr Gilbert's July 19, 2015, letter commented that:

Further, M-AQ-1 specifies numerous sub-part requirements (A 1 through 5) to be included in the Construction Emissions Mitigation Plan, and in each case compliance with those sub-parts is left to the "project sponsor." So, too, is compliance with the Measure's additional duties required under M-AQ-1 items B and C. This is not appropriate when considering the extent, complexity, and costs that will be incurred for effective mitigation measure compliance across the 26-month construction period; permitting the project sponsor to create, implement, report, and determine compliance with the Measure is akin to having the fox guard the henhouse and must not be allowed. As written, the measure is not enforceable due to the subjective, undefined nature of "Air Quality Specialist" who will approve the project sponsor's Construction Emissions Mitigation Plan.

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<sup>26</sup>July 26 Lippe, p. 10; July 19 Gilbert, pp. 7-10; October 30 Gilbert, pp. 14-16.



Further, it is unacceptable that the Measure will permit the project sponsor to determine compliance with each of the measure's components, record and report information signifying compliance, and then, under part C certify their own compliance with the Plan and its various requirements. We have inspected construction project sites, under air district contract, to determine compliance with air district-imposed construction equipment mitigations and have found uniformly poor compliance; to exemplify, at one residential subdivision project in south Sacramento County we determined that only one off-road construction vehicle out of nearly twenty were actually compliant with the mitigation requirements that had been imposed on the project by the Lead Agency. This is because there has traditionally been very little, if any, post- EIR follow-through to verify mitigation compliance by Lead Agencies or by the local air district after the CEQA project has been approved for development and construction has started. Knowing this, construction and development firms commonly let air quality mitigations go unmet, although records purporting to show compliance can be easily formulated and submitted post hoc in order to fulfill a paper requirement. Without an independent, qualified 3rd party contractor onsite each day to track, verify, and record emissions- and activity-related information on construction vehicles used at the project site to ensure the EIR's mitigations are implemented effectively, the project is very unlikely to produce more than a token of the emission reductions claimed in the DSEIR.

The Responses to Comments (RTC) codes this comment as "AQ-6e." (Volume 5, p. 13.13-60.) The response to comment AQ-6e states:

The City and OCII have successfully monitored implementation of emissions minimization requirements on numerous construction projects over the past several years. Examples of past and ongoing projects with CEMP emissions minimization requirements include Candlestick Point-Hunters Point Shipyard Phase II Development Project, which requires staged increases in the percentage of Tier 4 equipment; the Seismic Upgrade of BDPL Nos. 3 & 4 at Hayward Fault Project, which had one year of tiered engine requirements for on-road spoils hauling trucks and off-road construction equipment; and the Pacific Rod and Gun Club Upland Soil Remedial Action Project, which also had tiered engine requirements for off-road construction equipment.

(Volume 5, p. 13.13-60.)

The RTC's assertion is made without any evidentiary support. Well before the Response to Comments issued, the Alliance attempted to discover if the City or the OCII have any evidence to support the DSEIR's assumption that the Project's compliance with adopted air quality mitigation measures will be effectively monitored. In this regard, on August 13, 2015, I submitted a request to the City and OCII for:



All records relating to monitoring or enforcement of compliance with mitigation measures adopted to reduce potentially significant air quality impacts of development projects approved by the City, the Redevelopment Agency of the City and County of San Francisco, or the Successor Agency to the Redevelopment Agency of the City and County of San Francisco, including any records reflecting audits of such compliance.

(See Nov 2 Lippe FSEIR, Exhibit D attached thereto). In my email to the OCII and City dated September 30, 2015, I provided further definition to this request, stating:

With respect to all construction projects in these areas for which the EIR identified significant air quality impacts from construction activities that could not be entirely avoided, the City, Redevelopment Agency, or the Successor Agency would have adopted mitigation measures to reduce the projects' significant air quality impacts and would have adopted a Mitigation Monitoring and Reporting Plan ("MMRP"). These MMRPs should have resulted in the generation of reports documenting the project's compliance, or lack thereof, with these adopted air quality impact mitigation measures. I want to obtain these reports."

(See Nov 2 Lippe FSEIR, Exhibit E attached thereto [email exchanges between this author and OCII and City dated September 11 through September 30 of 2015].)

Despite these requests, neither OCII nor the City have produced a single record showing they have either themselves conducted monitoring of CEQA required air quality mitigation measures or have taken steps to ensure that Project Sponsors tasked with self-monitoring their own compliance have faithfully done so. The agencies' failure to produce any such records leads inescapably to the conclusion that Mr. Gilbert's observation applies to the OCII and the City, and no such records exist because no such monitoring has been done.

**(b) The DSEIR's impact assessments for operational criteria pollutants (ozone precursors, PM10, PM2.5) and TAC emissions are invalid.**

The operational impact assessments for ozone precursor, PM10, PM2.5 and TAC emissions is invalid for many reasons.

DSEIR Table 5.4-9 shows operational daily emissions of criteria pollutants as follows:

ROG:	79 lbs/day [14 tpy]
NOx:	124 lbs/day [23 tpy]
PM10:	80 lbs/day [14.6 tpy]
PM2.5:	25 lbs/day [4.5 tpy]

(DSEIR, p. 5.4-39.)



The DSEIR's impact assessments for these criteria pollutants emissions are invalid because they are based on the invalid thresholds of significance discussed above.

Because construction-related emissions of ROG and NOx are higher than the applicable (but invalid) threshold of significance for these pollutants, the DSEIR concludes the Project's impact on ozone pollution is significant. As discussed above, while correct, this conclusion is misleading because it understates the severity of the impact deemed "significant" by implying that the only fraction of the Project's NOx emissions is are "significant" is the fraction above 54 lbs/day.

**(1) The SEIR fails to include vehicle emissions from Warriors game traffic in its analysis of operational emissions.<sup>27</sup>**

The DSEIR's impact assessment for operational ozone precursor emissions is also misleading because it omits from its quantitative tally of criteria pollutants the emissions the Project will generate in San Francisco and the Mission Bay neighborhood from basketball game-associated "vehicle miles traveled" (DSEIR, p. 5-37.) The DSEIR's rationale for this startling omission is that moving the Warriors games from Oakland to San Francisco will reduce the same number of "vehicle miles traveled" in Oakland that the Project will generate in San Francisco and the Mission Bay neighborhood.

This rationale is based on the unstated, but incorrect, assumption that the environmental setting at Oracle Arena and the Mission Bay site are identical. These settings are very different, in many crucial respects. The Mission Bay neighborhood and the surrounding areas of San Francisco are populated by San Franciscans, not Oaklanders. The residents, citizens, and registered voters of San Francisco are entitled to know what the Project's air quality impacts will be *on them*, regardless of whether the residents, citizens, and registered voters of Oakland will experience an air quality benefit as a result of the move. (July 26 Lippe, pp. 10-11.)

Also, Oracle Arena sits in the middle of a vast parking lot. To the west is I-880, various commercial properties, wetlands, and the Bay. To the east is the Coliseum, railroad tracks, ABC Supply (provider of industrial equipment), East Bay Truck and Auto Repair, BART tracks and the Coliseum BART Station, and then, over 2,000 feet away to the northeast there is a group of apartment buildings. To the north and south stretch commercial properties for well over a mile without any residences. This stands in stark contrast to the dense residential population surrounding the Mission Bay site.

The DSEIR's suggestion that respiratory disease, heart disease, and cancer-causing air pollution is fungible and transferable, without regard to the location or environmental setting in which it occurs, is unsupported.

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<sup>27</sup> July 26 Lippe, p. 11; July 19 Gilbert, p. 10; October 30 Gilbert, pp. 6-10.



**(2) Mitigation Measure M-AQ-2b does not comply with CEQA’s legal requirements.<sup>28</sup>**

Mitigation Measure M-AQ-2b requires the Project Sponsor pay a fee to the BAAQMD that the BAAQMD will use to purchase ozone precursor offsets. The purpose is to offset the amount by which the project’s ozone precursors emissions exceed the numerical thresholds discussed in the previous section of this letter.

Therefore, to the extent the thresholds are invalid, as argued above, M-AQ-2b fails to reduce ozone precursor emissions to less-than-significant levels. Further, the DSEIR does not even consider the feasibility or effectiveness of more robust mitigation strategies that could reduce ozone precursor emissions further below the (invalid) thresholds. (See DSEIR, p. 5.4-39, Table 5.4-9, “Estimated Emissions Reduction Required”.)

The amount of the offset fee required by M-AQ-2b is calculated by multiplying the total amount of *annual* criteria pollutant emissions exceeding the annual (invalid) thresholds by \$18,030 per weighted ton of criteria pollutant emissions; then adding 5% of that product for BAAQMD’s administrative fees, as follows:<sup>29</sup>

ROG tons	4.4
NOx tons	12.6
PM tons x 20	<u>0</u>
Subtotal	<u>17</u>
Fee per ton	<u>\$18,030.00</u>
Subtotal	\$306,510.00
Admin fee 5%	0.05
Admin fee	<u>\$15,325.50</u>
Total Fee	\$321,835.50

The DSEIR indicates M-AQ-2b requires the Project Sponsor to pay only \$321,835.50, which is the amount required to offset one year’s worth of the Project’s operational criteria pollutant emissions. (See DSEIR, p. 5.4-41.) But the sports and entertainment arena portion of this Project has an operational life of at least 50 years, probably much longer,<sup>30</sup> and the office towers will last even longer. In contrast, the life spans of offset credit sources are much shorter than the expected life span of this Project. (See July 26 Lippe, July 19 Gilbert.) Therefore, the actual amount required to offset the Project’s above-threshold ozone precursor emissions is much higher than \$321,835.50. Therefore, the DSEIR’s premise that M-AQ-2b will achieve a complete offset of

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<sup>28</sup>Nov 2 Lippe FSEIR, pp. 5-6; October 30 Gilbert, pp. 17-19; 19-21.

<sup>29</sup>54 lbs per day of ROG emissions equals 10 tons per year.

<sup>30</sup>Oracle Arena was built in 1966, 49 years ago, and is still functional.



the Project's above threshold construction and operational criteria pollutant emissions is misleading and false.<sup>31</sup>

To address this deficiency, M-AQ-2b must be amended. The DSEIR must disclose the average life span of the offset credit sources the BAAQMD typically buys, then amend M-AQ-2b to require recalculation of the offset fee or other offset requirement after the average life span of such offset credit sources to account for their limited life span, changes in emissions, changes in attainment status, etc. In addition, M-AQ-2b must be amended to include a mechanism, in the event that BAAQMD does not spend the offset fee and returns it, to ensure the required offsets are purchased through another bona fide, verifiable offset program.

Accepting, *arguendo*, the validity of the 17 ton offset requirement, the DSEIR's discussion of Mitigation Measure M-AQ-2b leaves many questions unanswered regarding BAAQMD's offset program. For example, the effectiveness of the measure depends directly on the validity of numerous assumptions, including: (1) the assumption that \$18,030 is enough to purchase a ton of criteria pollutant emissions; (2) the assumption that the offset market has 17 tons of criteria pollutant emissions that can be reduced by engine retrofits or other offset techniques; (3) the assumption the Project Sponsor will accurately measure actual construction and operational emissions for purpose of determining how many tons of criteria pollutants must be offset; and (4) the assumption that BAAQMD has and will have reliable verification procedures in place ensuring that 17 tons of offset will actually be achieved.

**a. The Response to Comment AQ-7 is Inadequate.**

Comment AQ-7 is that the per ton charge for emission offsets is too low to achieve complete offset of the Project's emissions. The response is cagey on this point, but it appears the BAAQMD agreed with the comment, because the response states:

SF Planning has been in communication with BAAQMD with regard to its suggestion that a higher fee may be warranted to offset project emissions to a less than significant level and found that BAAQMD could not establish that an increased rate beyond that of the Carl Moyer Program plus a five percent administrative fee could meet the "rough proportionality" standard required under CEQA.

(RTC, p. 13.13-67.) The RTC's rationale for contending that a higher offset fee would not meet the "rough proportionality" standard is that offsets fees in other areas of the state are not higher than the offset fee proposed in the DSEIR. This is an error of law. The "rough proportionality" requirement requires a comparison of the cost of the mitigation to the degree of severity of the impact. The fee charged in other areas of the state are irrelevant to "rough proportionality."

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<sup>31</sup>The DSEIR indicates that construction-related criteria pollutant emissions are mitigated by including them in the operational period emission mitigation strategy. (DSEIR, p. 5.4-34.)



**b. New information and the refusal of the project sponsor to agree to Mitigation Measure M-AQ-2b since publication of the DSEIR require recirculation of a revised DSEIR.<sup>32</sup>**

By letter dated November 2, 2015 (i.e., after the RTC was issued), to the OCII, the Bay Area Air Quality Management District announced that it would not participate in Mitigation Measure M-AQ-2b's offset plan because the City and Project Sponsor refuse to agree to BAAQMD's offset fees. BAAQMD confirmed that the offset fees stated in the SEIR are insufficient to achieve the complete offset of ozone precursor emissions above the thresholds of significance and that unless the Project Sponsor and OCII agreed to the higher fees demanded, then BAAQMD would not participate in the offset program. The OCII has refused to require the Project Sponsor pay the higher fee. This eliminates a key basis for finding the Project's significant ozone precursor emissions to be substantially reduced and therefore, requires recirculation of the Draft SEIR.

The City cannot find that "Impact AQ-4: Potential conflicts with BAAQMD's 2010 Clean Air Plan" is less than significant with mitigation because the City and Project Sponsor refuse to agree to BAAQMD's offset fees per Mitigation Measure M-AQ-2b. (See November 2, 2015, letter from BAAQMD and November 2, 2015, OCII Memorandum re same.)

There is also no evidence that the "Option 2" offset within Mitigation Measure M-AQ-2b is feasible. There are too many unanswered questions regarding Option 2, including lack of assured verification of offsets to ensure their effectiveness, and lack of assurance that offset sources are available in the quantity required. BAAQMD's offset program at least answers some, if not all, of these questions.

The City and OCII cannot find that all feasible mitigation measures that would substantially reduce "Impact AQ-1: Impacts of Criteria Air Pollutants from Construction" have been adopted as required by CEQA section 21081, because there is no evidence that paying the offset fees demanded by BAAQMD is infeasible. Also, as discussed above, there is no evidence that the "Option 2" offset idea within Mitigation Measure M-AQ-2b is feasible; therefore, it is not an adequate substitute for BAAQMD's offset program. This also applies to Impact AQ-2: Impacts of Criteria Air Pollutants from Project Operations;" Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts; and Impact C-AQ-1: Project Contribution to Regional Air Quality Impacts.

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<sup>32</sup>Lippe Nov 2 FSEIR, pp. 5-6; October 30 Gilbert, pp. 17-18; Oral testimony of Thomas N. Lippe at November 3, 2015, OCII hearing.



**3. Changes to the Project Since Publication of the DSEIR Require Recirculation of a Revised DSEIR Due to New and More Severe Significant Impacts.<sup>33</sup>**

Under CEQA, if the project changes after publication of the Draft EIR, and these changes create a new significant impact not identified in the Draft EIR, or a substantial increase in severity of a significant impact that was identified in the Draft EIR, the lead agency must recirculate the draft EIR for public comment. (CEQA section 21092.1.)

Here, the RTC describes a number of “construction refinements”, including using dewatering generators, using a soil treatment pug mill, and removing rapid impact compaction from the construction plan. With respect to the air quality impacts of these “construction refinements” the RTC states:

The addition of the construction refinements would not substantially increase (approximately 2 percent for ROG and 4 percent for NOx) the average daily construction-related emissions disclosed in the Draft SEIR. This would not result in a substantial increase in the severity of the previously identified significant and unavoidable impact, and the same mitigation measures would apply requiring the project sponsor to minimize construction emissions.

(RTC, p 12-22.)

The RTC also describes a new variant, the Muni UCSF/Mission Bay Station Variant, and discloses that:

The Muni UCSF/Mission Bay Station Platform Variant would not substantially increase (approximately 2 percent for ROG and 5 percent for NOx) the average daily emissions disclosed in the Draft SEIR for the proposed project (see Table 5.4-7, page 5.4-31). Furthermore, Mitigation Measure M-AQ-1 (Construction Emissions Minimization) would also apply to the variant. While the estimated construction emissions under the variant shown in Table 12-2 are slightly higher than those identified for the proposed project in the Draft SEIR, this impact is not substantially more severe than the previously identified significant and unavoidable impact.

(RTC, p 12-22.)

There are several problems with these assertions. First, the RTC does explain whether construction refinement caused increases of 2 and 4 percent for ROG and NOx, respectively, are included within or additive to the Platform Variant caused increases of 2 and 5 percent for ROG and NOx. Without this information, the public does not know what additional quantum of ozone

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<sup>33</sup>Lippe Nov 2 FSEIR, pp. 6-7.



pollution the RTC deems insubstantial.

Assuming for the moment that the construction refinement caused increases are included within or the Platform Variant caused increases, the RTC offers no rationale why the 2 and 5 percent increases are not considered a “substantial” increase in the severity of the previously identified significant effect that Project construction will have on ozone precursor pollution. The RTC authors apparently believe these numbers speak for themselves. They do not. In fact, reliance on these appears to reflect a silent assumption that these increases above the previously identified quantities of emissions for these pollutants is “de minimis.” It must be remembered, however, that these increases are not above a previously identified less-than-significant quantity of emissions; the previously identified quantities were significant!

The RTC thus commits the exact errors of law rejected by the Court of Appeal in *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98 (“CBE”), i.e., using a “de minimis” rationale or any type of simple numerical ratio of the incremental impact compared to the pre-existing impact. “[T]he relevant question... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether ‘any additional amount’ of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant.” (Id. At p. 120; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-721.)

These increases should be considered substantial and the SEIR recirculated for public comment. Instead, the October 23, 2015, notice of publication of the Response to Comments informed the public they would have no opportunity to comment on the environmental effects of these changes in the Project.

#### **4. The SEIR’s Cancer and Health Risk Assessment for Toxic Air Contaminants Is Invalid, Based on Legal Errors and Not Supported by Substantial Evidence.**

##### **(a) The SEIR’s threshold of significance for what is a cumulatively significant TAC impact is legally flawed.**

Quoting the discussion of cumulative risk levels in BAAQMD’s 2009 *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, the DSEIR explained that the 100 in one million excess cancer risk threshold was based on USEPA guidance for “acceptable” risk. (DSEIR, p. 5.4-13.) The announced basis of that threshold for toxic air pollutants is identified as the 1989 preamble to the benzene National Emissions Standards for Hazardous Air Pollutants (NESHAP) rulemaking, which is focused on providing the “maximum feasible protection against risks to health ...” (*Id.*, emphasis added.)

In comments on the DSEIR, The Alliance objected that the DSEIR’s reliance on the 100



excess cancer threshold to determine cumulative significance was legally flawed because it improperly imports considerations of the cost and feasibility of mitigation into a determination of significance, even though CEQA requires that these two determinations be made in distinct steps.<sup>34</sup> The Alliance also objected that the DSEIR's purported justification of the 100 excess cancer threshold as representative of "pristine" conditions was not coherent or explained by the DSEIR or the 2009 BAAQMD reports cited by the DSEIR.

The FSEIR response to these comments objecting to the 100 excess cancer cumulative threshold argues that it is justified as the "upper limit of acceptability" under USEPA guidance. (FSEIR, p. 13.13-27.) The FSEIR explained that "pristine" conditions are those that are affected only by cumulative global atmospheric transport of TACs. (Id.) These responses are inconsistent with CEQA.

The SEIR's use of the 100 excess cancers per million threshold was legally flawed for several reasons. First, "a threshold of significance cannot be applied in a way that would foreclose the consideration of other substantial evidence tending to show the environmental effect to which the threshold relates might be significant." (*Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4<sup>th</sup> 1099, 1109.) In light of the obvious conclusion that the risk of the first 100 cancers in one million represent a material and significant health impact, the agency may not simply apply a regulatory standard from the USEPA "as an automatic determinant that the effect is or is not significant." (Id.)

Also, the EIR uncritically relies on an appeal to another agency's standards without justification, even though it is well-settled that mere compliance with another agency's regulatory standards cannot be used under CEQA as a sufficient basis for determining that a project's effects are insignificant. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 712-718 (improper to conclude that reliance with air quality regulations precludes significant impact); *Ebbetts Pass Forest Watch v. California Department of Forestry & Fire Protection* (2008) 43 Cal.4<sup>th</sup> 936, 957 (err to conclude that compliance with pesticide restrictions precludes significant impact); *Oro Fino Gold Mining Corporation v. County of El Dorado* (1990) 225 Cal.App.3d 872, 881-882 (meeting general plan noise standard does not preclude significant impact).) An agency must conduct its own fact-based analysis of project impacts, regardless of compliance with other regulatory standards. (*Californians for Alternatives to Toxics v. Department of Food & Agriculture* (2005) 136 Cal.App.4<sup>th</sup> 1, 16; *Citizens for Non-Toxic Pest Control v. Department of Food & Agriculture* (1986) 187 Cal.App.3d 1575, 1587-1588.) The OCII's failure to exercise independent judgment, evident in its uncritical reliance on other agency standards, violates CEQA. (CEQA Guidelines, §15084(e); *Friends of La Vina v. County of Los Angeles* (1991) 232 Cal.App.3d 1446, 1452.)

In addition, the DSEIR fails to provide any explanation for why cumulative TACs that do

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<sup>34</sup>Thomas Lippe, letter to Tiffany Bohee, July 26, 2015, pp. 16-18.



cause the first 100 excess cancers are “acceptable.” An EIR must contain facts and analysis, not just a bare conclusion, e.g., a conclusion as to “acceptable” risk. (*Santiago County Water District v County of Orange* (1981) 118 Cal.App.3d 818, 831.) The EPA standard borrowed by OCII and BAAQMD as the threshold for significant cumulative impact was designed to support a different regulatory scheme, not to support determinations of significance under CEQA. The EPA is permitted and required to consider factors of cost and feasibility in its regulation of toxics under the Clean Air Act. (See July 26 Lippe, pp. 16-18.) However, CEQA neither requires nor allows OCII to use EPA’s judgment of “acceptable” cancer risk to determine the significance of cumulative TAC impacts. The determination of “acceptable” environmental harm arises at the end of the CEQA analysis in the context of a statement of overriding considerations, not at the beginning of the process, in determining whether impacts are significant. (See, e.g., *City of Marina v. Board of Trustees of the California State University* (2006) 39 Cal.4th 341, 368-369.)

Also, the SEIR relies on a simplistic misrepresentation of actual EPA policy. (See July 26 Lippe, pp. 13-18.) The EPA’s actual policy is to assess increased cancer risk based on a host of site-specific factors within a range of values from 1 in one million to 100 in one million. This policy reflects the agency’s attempt to balance the costs and benefits of protecting public health in its implementation of a host of federal environmental laws, including the Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act, CERCLA (Superfund), etc. (See July 26 Lippe, Exhibit 3.)<sup>35</sup>

Instead of following this analytic approach, the DSEIR selects one value at the least environmentally protective end of the EPA’s “acceptable risk” range and uses it to determine the significance of the Project’s impacts, but without regard to the Project’s site-specific

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<sup>35</sup>“In the proposed NCP [Superfund National Contingency Plan], the Agency [EPA] had defined the acceptable risk range as being from  $10^{-4}$  to  $10^{-7}$ , meaning that when the excess risk to an individual of contracting cancer due to a lifetime exposure to a certain concentration of a carcinogen falls between approximately 1 in 10,000 [100 in one million] and 1 in 10 million, it is judged to be an acceptable exposure. As a measure of additional protection, the proposal provided that there should be a “point of departure” of  $10^{-6}$ , toward the more protective end of the scale, that should be used in setting preliminary remediation goals; if conditions warranted, the final remedy could achieve a level elsewhere within the range. ¶ The final rule maintained the point of departure of  $10^{-6}$ , but narrowed the risk range to  $10^{-4}$  through  $10^{-6}$ . This action was taken in response to public comment and concerns that the Superfund range went below the accepted de minimis level used by other EPA programs and those of other federal agencies. ... the Agency has retained the discretion to select a cleanup level outside the range in appropriate circumstances (e.g., where concerns about sensitive populations, synergistic effects among chemical mixtures, etc., suggest that the remedy should attain a level below  $10^{-6}$ . The use of a range of acceptable risk is general practice for most government programs. As discussed below in the section on role of cost, it affords the Agency the flexibility to take into account different situations, different kinds of threats, and different kinds of technical remedies. If a single risk level had been adopted, (e.g., at the more stringent end of the risk range), fewer alternatives would be expected to pass the protectiveness threshold and qualify for consideration in the balancing phase of the remedy selection process.” (Id., 20 ELR 10237 [footnotes omitted].)



considerations. Again, the DSEIR has cherry-picked a threshold of significance to avoid finding the Project's cancer risk impact significant.

Also, CEQA neither requires nor allows the City to use the EPA's judgment of "acceptable" cancer risk to determine the significance of the Project's impacts. The City's discretion to decide that significant environmental harm is "acceptable" in light of the project's benefits arises at the end of the CEQA analysis, in the context of a statement of overriding considerations, not at the beginning of the process, in determining whether impacts are significant.

A statement of overriding considerations is required, and offers a proper basis for approving a project despite the existence of unmitigated environmental effects, only when the measures necessary to mitigate or avoid those effects have properly been found to be infeasible. (Pub. Resources Code, § 21081, subd. (b).) Given our conclusion the Trustees have abused their discretion in determining that CSUMB's remaining effects cannot feasibly be mitigated, that the Trustees' statement of overriding circumstances is invalid necessarily follows. CEQA does not authorize an agency to proceed with a project that will have significant, unmitigated effects on the environment, based simply on a weighing of those effects against the project's benefits, unless the measures necessary to mitigate those effects are truly infeasible. Such a rule, even were it not wholly inconsistent with the relevant statute (*id.*, § 21081, subd. (b)), would tend to displace the fundamental obligation of "each public agency [to] mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so" (*id.*, § 21002.1, subd. (b)).

*City of Marina v. Board of Trustees of the California State University* (2006) 39 Cal.4th 341, 368-69.

This is a critical distinction, because where the Project does not exceed thresholds of significance that are erroneously inflated by the concept of "acceptable risk," the City is absolved of further legal obligation to mitigate the impact. As a result, the public cannot know whether the City will allow an unknown number of cancer cases to occur that it could have feasibly avoided had it scrupulously followed CEQA. Nor does the public know, had the EIR determined that 46 additional child cancer cases per one million persons is significant, whether or not the City would have found the Project's benefits outweigh its environmental and adverse human health effects.

**(b) The SEIR's reliance on "the ambient cancer risk in the most pristine portions of the Bay Area" to support its chosen threshold of significance for TACs is incoherent and inconsistent with CEQA.**

In its comments on the DSEIR, the Alliance criticized the DSEIR's attempt to support its



“100 in a million excess cancer cases” threshold by stating: “The 100 in a million excess cancer cases is also consistent with the ambient cancer risk in the most pristine portions of the Bay Area based on the District’s recent regional modeling analysis.” (DSEIR p. 5.4-13, citing the 2009 BAAQMD Justifications report, p. 67). (See July 26 Lippe, pp. 16-18.) As the Alliance pointed out, neither the DSEIR nor the 2009 BAAQMD Justification report explains what this means. For example, how are “excess” cancer cases “consistent” with “ambient” cancer risk? What does “most pristine” mean? On a scale of 1 to 10, are Mission Bay and the “most pristine areas” separated by 1 unit, or 10 units, or somewhere in between? (See July 26 Lippe, p. 18.)

The RTC responds that: “It should be noted that when BAAQMD developed its 100 in one million cumulative criterion characterized in its CEQA Air Quality Guidelines as reflective of air quality in a ‘pristine’ portion of the Bay area, it was originally designated as its “Point Reyes” approach, reflecting the air quality in this National Seashore that the U.S. Park Service identifies as a Class I Park and wilderness area. Consequently, even such pristine areas as Point Reyes National Seashore can have a sizeable background cancer risk, largely due to cumulative global atmospheric transport.” (FSEIR, Vol. 4, p. 13.13-27.)

This is a remarkable revelation, because here, the SEIR’s calculation of this Project excess cumulative cancer risk is based on modeling only local TAC sources in the immediate vicinity of the Project and excludes any consideration of this admitted background risk from regional or global sources. As Paul Rosenfeld and Jessie Jaeger explain, the excess cancer risk from cumulative non-Project sources identified in the SEIR (26 excess cancers at Hearst Tower and 44 excess cancers at UCSF Hospital) was based on modeling that takes into account only local sources such as San Francisco’s roadways and Caltrain.<sup>36</sup> Indeed, the documentation for the modeling of Air Pollution Exposure Zones cited by the DSEIR specifically states:

When discussing the maps and drawing conclusions from them, it is important to consider what they portray and how they were produced. Specifically, the dispersion modeling, from which the maps are derived, produced concentrations and risk estimates from direct emissions. The maps themselves therefore portray concentrations of directly emitted PM2.5 and cancer risk associated with directly emitted TAC *at locations near the sources of these emissions. The results do not reflect regional or long-range transport of air pollutants.* Nor do they include the effects of the chemical transformation (formation or loss) of pollutants.<sup>37</sup>

As a result of its exclusive focus on local sources, the SEIR’s assessment of this Project’s excess cumulative cancer risk improperly excludes the ambient cancer risk from regional, statewide, or globally transported TACs from the pre- project, existing-conditions, “baseline.”

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<sup>36</sup> Nov 20 SWAPE, Exhibit 1 hereto, pp. 4-7.

<sup>37</sup> BAAQMD, SFDPH, and SFPD, *The San Francisco Community Risk Reduction Plan: Technical Support Documentation*, December 2012, p. 37.



The omission was material. This Project's modeled excess cancer risk is 18 in one million for children resident in the UCSF Hearst Tower and 12 in one million for children at the UCSF Hospital. (FSEIR, Table 5.4-11, Revised, p. 14-121.) The HRA reports that the cumulative risk for these receptors, caused by TAC sources from the citywide modeling of local sources and by the Project sources, will be 44 and 56 excess cancers respectively. (*Id.*) But as the RTC now reveals, and Rosenfeld and Jaeger further explain, this risk does not include the baseline risk from regional or globally transported TACs.<sup>38</sup> When that non-local risk is included (i.e., 100 cancers per million), the resulting sum is well over 100 cancers per million. Yet the SEIR fails to disclose this as a significant impact.

Furthermore, in its justification of the cumulative threshold of significance, the SEIR does not explain why it makes sense to count only those excess cancers caused by local sources against the limit of 100 "acceptable" excess cancers. Indeed, the DSEIR's initial reference to "pristine" conditions affected only by the cumulative global atmospheric transport of TACs was incoherent. But when pressed, the RTC now discloses that the SEIR, without explanation or justification, simply ignores the contribution of regionally or globally transported TACs to this Project's cumulative excess cancer risk. The fact that TACs from a particular source may attenuate with distance does not explain why the cumulative background TACs from all sources, including more distant sources, should be ignored in a cumulative analysis.<sup>39</sup> CEQA requires consideration of all related sources of risk in cumulative analysis.

The regionally or globally transported background TACs responsible for 100 excess cancers are not included in, or related to, the SEIR's analysis in any fashion. The SEIR evaluates non-project cumulative TAC impacts by modeling TAC concentrations attributable to specifically identified local TAC sources.<sup>40</sup> Significance is determined by comparing the excess cancers from the modeled local sources to the 100 per million excess cancer threshold. However, if background regionally or globally transported TACs are already responsible for 100 excess cancers, then the SEIR should start with the conclusion that existing global projects are already responsible for a significant cumulative impact. Instead, the SEIR has committed the fundamental error of failing to add the Project's effects to the complete baseline for purposes of

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<sup>38</sup> As Rosenfeld and Jaeger explain, the SEIR's focus on local sources in evaluating cumulative excess cancers may be consistent with BAAQMD guidance, which restricts cumulative analysis to sources within a 1,000 foot radius. (20 SWAPE, Exhibit 1 hereto, p. 4) BAAQMD guidance justifies ignoring non-local sources because at 1,000 feet the risk from a particular source is sufficiently attenuated as to be indistinguishable from the background TAC risk. However, that does not mean that the background risk is zero or that the background risk should be ignored in cumulative analysis. BAAQMD guidance cannot justify violating CEQA's requirement to consider all related source of a cumulative impact.

<sup>39</sup> For example, the SEIR does not propose to ignore the cumulative effects of globally transported greenhouse gasses.

<sup>40</sup> Nov 20 SWAPE, Exhibit 1, pp. 4-5.



determining significance.<sup>41</sup>

As a result, the SEIR unjustifiably limits the geographic scope of its cumulative impact analysis to local sources, while admitting that the risk is affected materially by regionally or globally transported sources. An agency may not arbitrarily limit the geographic scope of cumulative analysis or omit relevant projects.<sup>42</sup> Lead agencies must “define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.” (CEQA Guidelines, § 15130(b)(3), emphasis added; *Citizens to Preserve the Ojai v. County of Ventura* (1985) 126 Cal.App.3d 421, 430 (failure to explain limited scope of cumulative analysis is error); *Bakersfield Citizens, supra*, 124 Cal.App.4th at 1216 (same).) Here, the SEIR provides no explanation, reasonable or otherwise, for omitting the 100 excess cancers attributed to non-local, regionally or globally transported TACs from its analysis.

**(c) The SEIR is inadequate because it omits a project-specific assessment of TAC health risks.**

The DSEIR identified TACs as a health risk, particularly to children, and explained that BAAQMD requires a Health Risk Assessment (HRA) if there is a potential public health risk. (DSEIR, p. 5.4-11.) The DSEIR provides an HRA in the Air Quality Appendix and summarizes its result in Table 5.4-11. (DSEIR, p. 5.4-49.) The HRA shows that, even after mitigation, the Project’s TACs will cause an excess cancer risk of 46 in one million for children resident in the UCSF Hearst Tower and 42 in one million for children at the UCSF Hospital. (DSEIR, Table 5.4-11, p. 5.4-49.) The HRA reports that the cumulative risk for these receptors, caused by the Project’s TAC sources and by background TAC sources, will be 72 and 86 excess cancers respectively. (*Id.*)

The DSEIR adopts the following threshold of significance for the health risk analysis for TACs:

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<sup>41</sup> See *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 722-723; *Friends of the Eel River v. Sonoma County Water Agency* (2003) 108 Cal.App.4th 859, 881-882. Indeed, the significance of a cumulative impact depends on the environmental setting in which it occurs, including the severity of existing environmental harm. (*Communities for a Better Environment v. California Resources Agency* (“*Communities*”) (2002) 103 Cal.App.4th 98, 120 “[T]he relevant question”... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether “any additional amount” of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant”].)

<sup>42</sup> *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 721-724 (error to confine cumulative air quality analysis to County where evidence showed sources were basin-wide); *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1213-1214 (ignoring other impact sources was “overarching legal flaw”).



The threshold of significance used to evaluate health risks from new sources of TACs associated with the project is based on the potential for the proposed project to substantially affect the extent and severity of the Air Pollutant Exposure Zone 41 at sensitive receptor locations. The health protective standards used for determining the Air Pollutant Exposure Zone and evidence supporting these standards are discussed in the Setting section above and were developed in consultation with BAAQMD staff as part of the preparation of a Community Risk Reduction Plan.[] The project site is not within an identified health vulnerable zip code; therefore the Air Pollutant Exposure Zone criteria for this location is based on: (1) cumulative PM<sub>2.5</sub> concentrations greater than 10 µg/m<sup>3</sup>, and/or (2) excess cancer risk from the contribution of emissions from all modeled sources greater than 100 per one million population. For projects that could result in sensitive receptor locations meeting the Air Pollutant Exposure Zone criteria that otherwise would not occur without the project, a proposed project that would emit PM<sub>2.5</sub> concentration above 0.3 µg/m<sup>3</sup> or result in an excess cancer risk greater than 10.0 per million would be considered a significant impact. The 0.3 µg/m<sup>3</sup> PM<sub>2.5</sub> concentration and the excess cancer risk of 10.0 per million persons exposed are the levels below which the BAAQMD considers new sources not to make a considerable contribution to cumulative health risks. [] For those locations already meeting the Air Pollutant Exposure Zone criteria, a lower significance standard is required to ensure that a proposed project's contribution to existing health risks would not be significant. Since the project is not within an Air Pollutant Exposure Zone, the above thresholds apply to the proposed project.

(DSEIR, p. 5.4-27, emphasis added, footnotes omitted.) Thus, the DSEIR would find a TAC “significant impact” based on excess cancers only if 1) the cumulative risk from all sources were greater than 100 excess cancers and 2) the project itself contributed more than 10 excess cancers. Similarly, the DSEIR would find a TAC “significant impact” based on PM<sub>2.5</sub> concentrations only if 1) cumulative PM<sub>2.5</sub> concentrations were greater than 10 ug/m<sup>3</sup> and 2) the project itself contributed more than 0.3 ug/m<sup>3</sup> to that PM<sub>2.5</sub> concentration.

Although the HRA reports that the Project would cause well over 10 excess cancers (DSEIR, Table 5.4-11, p. 5.4-49) and its operations would increase PM<sub>2.5</sub> concentrations more than 0.3 ug/m<sup>3</sup> (DSEIR, Table 5.4-10, p. 5.4-48), the DSEIR concludes that the “cancer risk would be less than significant with mitigation” because no offsite receptors would meet the Air Pollution Exposure Zone (APEZ) criteria of PM<sub>2.5</sub> concentration over 10 ug/m<sup>3</sup> or 100 excess cancers.<sup>43</sup> (DSEIR, pp. 5.4-48, 5.4-49.)

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<sup>43</sup> The DSEIR reports that the City and BAAQMD modeled health risks from TACs throughout the City from roadways, permitted stationary sources, port and maritime sources, and Caltrain sources in 2012 to identify areas in which the excess cancer risk from all modeled sources was greater than 100 in one million to identify Air Pollution Exposure Zones and that the Project is not located in such a zone. (DSEIR, p. 5.4-12.)



The DSEIR's discussion of the methodology for its analysis of cumulative TAC impacts equates the project-level and cumulative analyses as follows:

... the HRA takes into account the cumulative contribution of localized health risks to sensitive receptors from sources included in the Citywide modeling plus the proposed project's sources. Other future projects, whose emissions have not been incorporated into the existing Citywide health risk modeling, such as Pier 70 and Seawall Lot 337/Pier 48 would similarly be subject to CEQA requirements to analyze the health risk impact of their project. However, health risk impacts are localized, and health risks from sources decrease substantially with increasing distance.[] Thus cumulative impacts from the Pier 70 and Seawall Lot 337/Pier 48 would not combine with the proposed project's emissions to substantially increase health risks within the project vicinity. Thus, because the project-level analysis includes health risks from all known existing sources, the project-level analysis is also a cumulative health risk analysis.

(DSEIR, p. 5.4-28, emphasis added, footnote omitted.)

In comments on the DSEIR, The Alliance objected that the DSEIR ignored BAAQMD's stated threshold of risk of 10 excess cancers for single source impacts and instead relied only on the BAAQMD 100 excess cancer risk for assessing cumulative impacts.<sup>44</sup> The Alliance objected that the acknowledged Project-caused risks of 46, 38, and 42 excess cancers (to child residents of Hearst Tower, adult residents of Hearst Tower, and child residents of UCSF Hospital respectively) exceed the BAAQMD thresholds for determining the significance of single source impacts.<sup>45</sup>

In support of these comments, the Alliance provided a technical letter from Paul Rosenfeld and Jessie Jaeger explaining that the DSEIR should have applied the BAAQMD threshold of 10 excess cancers or an increase of PM2.5 concentrations greater than 0.3 ug/m3 to the Project's individual impact. (July 20 SWAPE, pp, 8-10.) Rosenfeld and Jaeger explained that BAAQMD intended that the 10 in one million excess cancer threshold apply to all sources of emissions from a single project.

The FSEIR response AQ-1c to these DSEIR comments objecting to the lack of a project-specific TAC significance determination argues that the DSEIR did not ignore BAAQMD's 10 excess cancer threshold for individual projects because the DSEIR thresholds "are based on a combination of the BAAQMD 2010 CEQA Guidelines and assessments by the City of localized sources of toxic air contaminants and proximity to sensitive receptors." (FSEIR, p. 13.13-25, emphasis added.) The FSEIR argues that the "the project site conditions were such that the [10

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<sup>44</sup>July 26 Lippe, pp. 13-18.

<sup>45</sup>*Id.* at 13-15.



in one million excess cancer] threshold did not apply in this instance as further explained below.” *Id.* The explanation is that the DSEIR would only apply the 10 excess cancer threshold for individual projects only if there is a significant cumulative impact, i.e., only if the Project’s sensitive receptors were located in an APEZ:

The City in partnership with the BAAQMD has identified the Air Pollutant Exposure Zone in the City – areas with poor air quality under existing and cumulative conditions[.]. The project site is not located within an Air Pollutant Exposure Zone. The SEIR states that in such a case, if the project could result in sensitive receptor locations meeting the Air Pollutant Exposure Zone criteria that otherwise would not occur without the project, a significant impact would occur if the proposed project results in an excess cancer risk greater than 10.0 per million (page 5.427). The analysis demonstrated that the project would not result in sensitive receptor locations meeting the Air Pollutant Exposure Zone criteria. Therefore, the 10.0 per million excess cancer risk criterion does not apply.

(FSEIR, p. 13.13-25, emphasis added, footnotes omitted.)

The FSEIR also provides a new HRA based on changes to the project description that relocate three emergency diesel generators and reduce Project-caused excess cancers. (FSEIR, p. 13.13-27; FSEIR, Appendix AQ2, pp. 9-17.) Because the revised Table 5.4-11 no longer shows unmitigated cumulative TAC impacts greater than 100 excess cancers and because the FSEIR accordingly determines that mitigation is not required for this impact, the FSEIR concludes that the impact is “less than significant” rather than “less than significant with mitigation.” (FSEIR, p. 14-121.)

The Alliance responded to the FSEIR by reiterating that the DSEIR fails to provide a project specific assessment of TAC health risks.<sup>46</sup> The Alliance explained that this omission is prejudicial by submitting a letter report from Paul Rosenfeld and Jessie Jaeger explaining that the Project’s impacts exceed the 10 excess cancer in one million risk thresholds for project-specific analysis used by BAAQMD and the majority of California air districts.<sup>47</sup>

As the attached letter from Paul Rosenfeld and Jessie Jaeger explains, the FSEIR’s new HRA also fails to assess individual health risk from proposed project by comparing it to a project-specific threshold of significance.<sup>48</sup> The project will still, by itself, cause excess cancers in excess of the 10 excess cancer threshold used by the majority of California air districts to determine the significance of project-specific impacts. In particular, child residents of Hearst

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<sup>46</sup>Nov 2 Farrow, pp. 1-3.

<sup>47</sup>Nov 2 SWAPE, pp. 2-4.

<sup>48</sup>Nov 20 SWAPE, Exhibit 1, pp. 2-4.



Tower will suffer a risk of 18 excess cancers and child residents of UCSF Hospital will suffer a risk of 12 excess cancers. (FSEIR, Table 5.4-11, p. 14-121.)

The SEIR's failure to provide a project-specific assessment of the Project's TAC impact was legally erroneous and prejudicial to informed public participation and decision making.

As the Alliance objected, the DSEIR fails to provide a project-specific assessment of TAC health risks because it does not adopt and does not apply a threshold of significance for the project-specific impact. The SEIR's only thresholds of significance for TACs are thresholds for cumulative impacts. The SEIR's thresholds would find a considerable contribution to a significant cumulative impact only if (1) there were 100 excess cancers from all sources and (2) the project itself contributed 10 excess cancers. The SEIR's approach is wrong as a matter of law because it conflates project-specific and cumulative analysis and because it assumes without justification that the only relevant thresholds are the thresholds for cumulative impacts. This ignores the significance of the actual cancers the Project causes, by itself, independent of the cumulative context.

CEQA requires that an EIR assess both project-specific and cumulative impacts. (CEQA Guidelines, §§ 15126.2, 15130.) Because assessment of project-specific and assessment of cumulative impacts are distinct obligations, they require distinct thresholds of significance. Whereas a project-specific analysis requires only that an EIR compare a project's effects to a single threshold, cumulative analysis requires two thresholds because cumulative impact analysis is a two-step process. In cumulative analysis an agency must separately (1) determine whether the impacts of the project in combination with those from other projects with related impacts are cumulatively significant by comparing that total impact to a "step-one" threshold, and (2) if so, determine whether the project's own effect is a considerable contribution by comparing the project's own effect to a "step-two" threshold. (CEQA Guidelines, § 15130(a); *see* Kostka and Zischke, *Practice Under the California Environmental Quality Act* (2nd Ed., 2011 Update), §§ 13.39. 15.52; Remy, Thomas, et al, *Guide to CEQA* (11th Ed., 2007), pp. 474-475.)

CEQA recognizes that the thresholds used for project-specific analysis and for the second step of cumulative analysis differ. The step-two threshold of significance in cumulative analysis is used to determine whether the project's contribution to a significant cumulative impact is "considerable," i.e., "whether 'any additional amount' of effect should be considered significant in the context of the existing cumulative effect." (*Communities for a Better Environment v. California Resources Agency* ("CBE") (2002) 103 Cal.App.4th 98,119.) Even if a project's impact is "individually minor" and, thus, not found significant in a project-specific analysis, it may make a considerable contribution because it is "collectively significant." (*Id.* at 119-120; *Los Angeles Unified School Dist. v. City of Los Angeles* ("LAUSD") (1997) 58 Cal.App.4th 1019, 1025-1026.) Indeed, the step-two threshold may need to be a sliding scale because "the greater the existing environmental problems are, the lower the threshold should be for treating a project's contribution to cumulative impacts as significant." *CBE*, *supra*, 103 Cal.App.4th at 120. In sum, because CEQA specifically recognizes that the step-two threshold in cumulative analysis



may be lower than the threshold to determine whether an impact is individually significant, there can be no *a priori* assumption that the project-specific threshold is the same as the threshold for step-two in a cumulative analysis.

Here, the SEIR does not provide, much less justify, any threshold for a project-specific analysis. The only form of analysis is the two-step cumulative analysis under which the SEIR first determines whether cumulative risk exceeds 100 cancers and then goes on to consider whether the a project makes a considerable contribution. The SEIR simply declines to consider whether the Project's TAC impacts would be individually significant.

Not only is the omission of a separate project-specific analysis erroneous as a matter of law, it runs counter to the BAAQMD guidance. BAAQMD's 2009 Justification Report recommends a CEQA threshold for siting a new project of 10 excess cancers, applicable to stationary, area, and mobile sources of TAC emissions.<sup>49</sup> This is a project-specific, not a cumulative threshold. The 2009 Justification Report separately recommended cumulative threshold: 100 excess cancers from all sources within 1,000 feet.<sup>50</sup> Similarly, the May 2010 BAAQMD Guidelines identify separate thresholds for individual projects and for cumulative sources. Under that guidance, risk from an individual project is significant if it increases cancer risk by more than 10 in one million.<sup>51</sup> Risk from all sources is cumulatively significant if the risk from any source results in a total risk greater than 100 excess cancers.<sup>52</sup> Furthermore, the May 2010 BAAQMD Guidelines specifically provides that the "cumulative threshold sets a level beyond which any additional risk is significant."<sup>53, 54</sup> Thus, contrary to the SEIR's implication,

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<sup>49</sup> BAAQMD, Revised Draft Options and Justification Report, October 2009, pp. 66-67.

<sup>50</sup> *Id.* at 68.

<sup>51</sup> BAAQMD, California Environmental Quality Act Guidelines Update, Proposed Air Quality CEQA Thresholds of Significance, May 3, 2010, p. 33.

<sup>52</sup> *Id.* at 34; *see also id.* at 46 ("Projects proposed in areas where a CRRP [Community Risk Reduction Plan] has not been adopted and that have the potential to expose sensitive receptors or the general public to emissions-related risk in excess of the following thresholds from the aggregate of cumulative source would be considered to have a significant air quality impact. ... Emissions from a new source or emissions affecting a new receptor would be considered significant where ground-level concentrations of carcinogenic TACs from any source result in an increased cancer risk greater than 100.0 in one million.")

<sup>53</sup> BAAQMD, California Environmental Quality Act Guidelines Update, Proposed Air Quality CEQA Thresholds of Significance, May 3, 2010, p. 36, emphasis added.

<sup>54</sup> These risk thresholds for evaluating the significance of the risks from single source impacts and from cumulative sources are also set out in BAAQMD's 2011 update. *See* BAAQMD, California Environmental Quality Act Air Quality Guidelines, updated May 2011, pp. 5-3 (identifying 10 excess cancers as the threshold of significance for siting an individual new project), 5-15 (identifying 100 excess cancers as the cumulative threshold of significance). The individual project and cumulative risk thresholds are separately



the BAAQMD guidance does not permit an additional 10 excess cancers without mitigation where the cumulative risk is under 100.

The fact that BAAQMD calls for a cumulative significance determination and for mitigation when cumulative excess cancers from sources within the 1,000 foot zone of influence are over 100 per million if a project adds any excess cancers does not vitiate the validity of a project-level threshold of 10 per million. A project may make a considerable contribution to a significant cumulative impact even when the project-specific impact is individually minor and not significant. (*CBE, supra*, 103 Cal.App.4th at 119-120; *LAUSD, supra*, 58 Cal.App.4th at 1025-1026.) Conversely, a project make cause a significant impact by itself even if the cumulative impact is not significant. The SEIR simply ignores this fact. But this project level impact must be evaluated and disclosed in the SEIR.

The City of San Francisco has in the past applied the BAAQMD thresholds to provide distinct project-specific and cumulative analyses. For example, the 801 Brannan and One Henry Adams Streets Project DEIR states:

The following are thresholds for project-specific impacts: (1) an increase in lifetime cancer risk of 10 chances in one million, (2) an increase in the noncancer risk equivalent to a chronic or acute “Hazard Index” greater than 1.0,[ft] or (3) an increase in the annual average concentration of PM2.5 in excess of 0.3 micrograms per cubic meter. BAAQMD also recommends cumulative thresholds of 100-in-one-million cancer risk, a Hazard Index greater than 10.0, and a PM2.5 concentration greater than 0.8 micrograms per cubic meter.<sup>55</sup>

Accordingly, that EIR separately evaluates and identifies both project-specific impacts and cumulative impacts by preparing distinct analyses as to whether 1) the project itself causes more than 10 excess cancers or 2) cumulative sources cause more than 100 excess cancers.<sup>56</sup> This is as it should be, because CEQA recognizes that the project-specific and cumulative analyses are distinct obligations.

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stated and not dependent on each other. Individual risks are significant if the project causes over 10 excess cancers. (*Id.* at 5-3.) And where the cumulative risk is over 100 excess cancers there is no minimum contribution required from a project to trigger a cumulative significance determination with the obligation to mitigate: “A project would have a significant cumulative impact if the total of all past, present, and foreseeable future sources within a 1,000 foot radius (or beyond where appropriate) from the fence line of a source, or from the location of a receptor, plus the contribution from the project exceeds the following: . . . [a]n excess cancer risk levels of more than 100 in one million ... or 0.8 ug/m3 annual average PM2.5.” (*Id.* at 5-15.)

<sup>55</sup> 810 Brannan and One Henry Adams Streets Project DEIR, Exhibit 2, p. 266.

<sup>56</sup> *Id.*, pp. 281-284 (separately determining that project-specific impacts would be significant because excess cancers are over 10 and that cumulative impacts would be significant because over 100).



The City has also in the past found project-specific impacts to be significant because individual project TAC risk exceeds 10 excess cancers *even when the cumulative risk does not exceed 100 excess cancers*. For example, the EIR for the 706 Mission Street project concluded that cumulative TAC impacts from that would not be significant because excess cancers would not exceed 100.<sup>57</sup> The same EIR determined that the project-specific construction TAC impact would be significant because construction would cause 27.3 excess cancers.<sup>58</sup> Accordingly, mitigation was proposed to reduce risk below the project-specific threshold of 10 excess cancers.

Here, based on the SEIR's own analysis, the result should be the same as occurred in 706 Mission Street project EIR: the individual risk is acknowledged to be over 10 excess cancers even though the cumulative risk is reported to be under 100. Thus, the consequence of the omission of a project-specific analysis is the failure to disclose that the project will cause a significant impact, by itself, regardless of the cumulative context. It is undisputed that the Project will cause a risk of at least 12 excess cancers to child residents of the UCSF Hospital and at least 18 excess cancers to child residents of Hearst Tower (FSEIR, p. 14-121) and that this increased risk exceeds the project-specific threshold of significance recommended by the majority of California air districts, including BAAQMD.<sup>59</sup>

Because OCII did not propose, justify, or apply a threshold of significance for project-specific impacts, the EIR is legally inadequate. Regardless of the conclusion that the EIR might have reached had it provided and justified a project-specific threshold of significance and applied it in a project-specific analysis, the EIR is insufficient as an informational document without this analysis. The omission is prejudicial because there is substantial evidence that a project-specific analysis would have disclosed a significant unmitigated impact. Under the circumstances, the EIR must be revised and recirculated.

The FSEIR fails to address the gravamen of the comments objecting to the absence of a project-specific analysis. The FSEIR responds to these objections by claiming that the DSEIR "did not ignore the threshold of 10 per one million for individual projects emissions," arguing that this BAAQMD threshold simply did not apply because cumulative impacts are not significant. (FSEIR, p. 13.13-25.) This response simply conflates the project-specific and cumulative analyses, as explained above.

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<sup>57</sup> 706 Mission Street- The Mexican Museum and Residential Tower Project DEIR, June 27, 2012, Exhibit 3, pp. IV.G47 to IV.G.50.

<sup>58</sup>Exhibit 3, at pp. IV.G31 to IV.G.36.

<sup>59</sup>Nov 20 SWAPE, Exhibit 1, p. 2.



**(d) The SEIR's assessment of cumulative TACs is invalid because it fails to include all sources of related impacts.**

The DSEIR's analysis of cumulative TAC sources other than the Project-caused sources was based on a local-scale citywide modeling effort conducted in 2012. (DSEIR, p. 5.4-11 to 5.4-12, 5.4-28.) Thus, the background cumulative non-Project risk of excess cancers from TACs was taken from "the Citywide HRA database for all receptors." (DSEIR, Appendix AQ, Table 6.1-8, fn 5; *see also* FSEIR, Appendix AQ2, Table 6.1-8, fn. 6 (same).) This cumulative background risk is stated as 44 excess cancers in one million for child receptors at the UCSF Hospital and 26 in one million for child and adult receptors at the Hearst Tower. *Id.* The DSEIR acknowledges that the prior environmental review for the Mission Bay project did not quantitatively assess TACs. (DSEIR, p. 5.4-50.)

The Alliance has objected that the cumulative analysis did not in fact evaluate all sources of TACs that would affect sensitive receptors because it omits foreseeable future sources of TACs from adjacent development already approved as part of the Mission Bay redevelopment program. (Nov 2 Farrow FSEIR, p. 3.) The Alliance demonstrated that the omission was prejudicial by submitting a technical report from Paul Rosenfeld and Jessie Jaeger explaining that the SEIR fails to include foreseeable future development in its analysis of cumulative TAC health risks.<sup>60</sup> Rosenfeld and Jaeger explain that the City's designation of Air Pollution Exposure Zones does not include TAC impacts in the Project area from the future redevelopment of the Mission Bay area. This build-out was projected in the Mission Bay EIR to generate 218,549 vehicle trips and 2,684 truck trips per day. This level of additional traffic has the potential to cause excess cancers greater than the 100 cancer threshold identified by the EIR for a significant cumulative impact.

Cumulative analysis must include all sources of "related impacts," including past, present, and potential future projects. (CEQA Guidelines, § 15130(a)(1), (b).) The unjustified omission of related sources of TACs is an error because without this disclosure the public and decision makers cannot "determine whether such information would have revealed a more severe impact." (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720, 724.) The future development of the rest of the Mission Bay project is clearly foreseeable because it has already been approved at the program level. The Warriors Arena Project is but one phase of the overall Mission Bay project. The California Supreme Court has held that it is error for an EIR for one phase of a project to omit impacts from future phases in its analysis of cumulative impacts. (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 396.) The omission of this foreseeable future development is error.

The DSEIR implies that impacts from future development may be ignored because "[o]ther future projects, whose emissions have not been incorporated into the existing Citywide health risk modeling ... would similarly be subject to CEQA requirements to analyze the health

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<sup>60</sup>Nov. 2 SWAPE, pp. 4-12.



risk impact of their project.”<sup>61</sup> (DSEIR, p. 4.4-28.) However, the SEIR may not tier from future environmental reviews: “CEQA’s informational purpose ‘is not satisfied by simply stating information will be provided in the future.’” (*Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 440-441 (emphasis in original).)

**(e) The FSEIR fails to provide good-faith response to comments objecting to the analysis of TAC health risks, and the TAC analysis is inadequate because OCII failed to use its best efforts to use current science.**

The SEIR’s HRA determines the number of excess cancers from the Project itself based on the modeled concentration of TACs from construction and operation of the Project, toxicity values for those TACs and a number of exposure parameters. (DSEIR, Appendix AQ, pp. 9-17; FSEIR Appendix AQ2, pp. 9-17.) The exposure parameters are intended “to estimate excess lifetime cancer risks for all potentially exposed populations for the construction and operation” of the Project. (FSEIR, App. AQ2, p. 13.) These exposure parameters include daily breathing rate, exposure time, exposure frequency, exposure duration, averaging time, and intake factor for inhalation. (DSEIR, Appendix AQ, p. 14; FSEIR Appendix AQ2, p. 14.) The SEIR reports that the exposure parameters are based on 2003 guidance from Cal/EPA’s Office of Environmental Health Hazard Assessment (OEHHA) and 2010 guidance from BAAQMD.

As noted above, the DSEIR’s analysis of cumulative TAC sources other than the project-caused sources was based on citywide modeling in 2012. (DSEIR, p. 5.4-11 to 5.4-12, 5.4-28.) The background cumulative non-Project risk of excess cancers from TACs was taken from “the Citywide HRA database for all receptors.” (DSEIR Appendix AQ, Table 6.1-8, fn 5.) The SEIR does not report the exposure parameters that were used for that 2012 modeling.

Comments on the DSEIR objected that the health risk assessment fails to use the most recent OEHHA Air Toxics Hotspots Program Risk Assessment Guidelines. (July 19 Gilbert, pp. 13-14.) The comments pointed out that current OEHHA exposure parameters call for the use of differential breathing rates for each age period in a health-risk analysis and incorporate higher breathing rates for children than those used in the SEIR’s HRA. The comments conclude that the SEIR’s HRA likely underestimates potential excess cancer risks due to its use of out-of-date data. The comments requested that the EIR recalculate excess cancers using differential breathing rates, including the correct daily breathing rate for children.

In response, the FSEIR does not dispute the validity of the new OEHHA guidance. Indeed, the FSEIR admits that BAAQMD intends to use the revised guidance in the future. (FSEIR, p. 13.13-50.) However, the FSEIR declines to provide a new assessment of health risks based on differential breathing rates, including the current understanding of children’s breathing

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<sup>61</sup>The DSEIR mentions Pier 70 and Seawall Lot 337/Pier 48 as examples of such future projects, and then dismisses their impacts because they are allegedly too distant to affect the same receptors. (DSEIR, p. 5.4-28.) But the DSEIR ignores the Mission Bay buildout adjacent to the project.



rates, or to discuss the likely effect of the use of correct breathing rates in the analysis. The FSEIR argues 1) that the new OEHHA guidance post-dates the Notice of Preparation, 2) that air districts may not always adopt OEHHA guidance timely, and 3) that the San Joaquin Valley Air Pollution Control District responded to the new breathing rates by increasing its threshold of significance to one that is less stringent than OEHHA recommends. (*Id.*) The FSEIR also argues that because the analysis in the DSEIR is consistent with the methods previously used to determine existing risks it “represents a valid conservative estimate of incremental health risk.” *Id.*

As noted, the FSEIR also provides a new HRA based a change to the Project description, which relocates three emergency diesel generators. (FSEIR, p. 13.13-27; FSEIR, Appendix AQ2, pp. 9-17.) Despite the necessity of recalculating all of the Project-caused excess cancers, the new HRA does not use the current OEHHA breathing rates.

The Alliance objected that the FSEIR had not provided the requested analysis.<sup>62</sup> The Alliance objected that the FSEIR response fails to acknowledge that OEHHA had recommended the higher children’s breathing rates in guidance issued in 2012, well before the 2014 Notice of Preparation. *Id.* The Alliance provided technical analysis demonstrating that the effect of the increased breathing rate can be to approximately double the excess cancer risk for children for some TAC sources compared to analysis using the out-of-date breathing rate assumption. *Id.*

Paul Rosenfeld and Jessie Jaeger reiterate that the effect of the currently recommended differential breathing rates can be to materially increase the excess cancer risk for children from Project-caused TACs compared to analysis using the out-of-date breathing rate assumption (see Exhibit 1).<sup>63</sup> Using the data for Project-caused TAC risks from the SEIR rather than the hypothetical exposure scenario in their November 2, 2015 letter, Rosenfeld and Jaeger determined the Project-caused excess cancers for child and adult receptors at Hearst Tower and child receptors at the UCSF Hospital using the currently recommended differential breathing rates. Excess cancer risk from project-caused TACs would increase materially compared to the risks determined using the out-of-date breathing rates – from 42% to 71%. For example, risk for a child resident of the Hearst Tower from Project-caused sources would increase 71%, from 18 to 31 excess cancers.

For the TAC risks from cumulative sources, Rosenfeld and Jaeger explain that the SEIR does not disclose the necessary information to calculate excess cancers using the 2012 and 2015 OEHHA guidance. For example, the SEIR does not provide either the TAC concentrations or the exposure parameters used to determine the cumulative non-Project excess cancers, i.e., the “2014 background risk” identified in the Appendices AQ and AQ2, Table 6.1-8. However, Rosenfeld and Jaeger explain that it is apparent from the FSEIR’s characterization of these data that the

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<sup>62</sup>Nov. 2 Farrow, pp. 4-5; Nov 2 SWAPE, pp. 12-15.

<sup>63</sup>Nov 20 SWAPE, Exhibit 1, pp 4-6.



cumulative non-Project background risk was not calculated with the differential breathing rate recommended by OEHHA in its 2012 and 2015 guidance. Accordingly, Rosenfeld and Jaeger conclude that the SEIR materially understates total risk and that the actual risk may in fact exceed the 100 excess cancer cumulative threshold for some receptors.

Comments by responsible experts raised a substantive issue regarding the currency of the data on children's breathing rates that was used to determine TAC risks. The response was anything but good-faith reasoned analysis. Even though the FSEIR provided an entirely new HRA to reflect changes to the project, the FSEIR did not provide the requested analysis, or even discuss the likely effect of the use of current data regarding children's breathing rates on the SEIR's analysis. (FSEIR, p. 13.13-50.) Instead of providing the information requested, or a discussion of its effect on the analysis, the FSEIR offered formalistic evasion.

For example, the fact that BAAQMD has not yet revised its guidance is simply irrelevant to a discussion of the substantive issue raised in the comments, i.e., the actual risk to children. The facts of children's breathing rates determine the impact, not whether BAAQMD has yet incorporated those facts into a guidance document. OCII is obliged to "use its best efforts to find out and disclose all that it reasonably can." (CEQA Guidelines, § 15144.) This requires a substantive response to the issue raised in comments.

The FSEIR responds that, in response to the information that higher children's breathing rates result in risks that are higher than they understood them to be, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has apparently chosen to adopt less stringent health protection than it previously required. That response is also irrelevant and evasive. If the SJVAPCD had previously set a health-protective risk level, it is difficult to understand how its discovery that the risk to children is higher than it had understood could justify relaxing that health-protective standard. If SJVAPCD's previous threshold was set and then relaxed based on considerations of cost or feasibility of mitigation, e.g., as a standard of "acceptable" risk, that was improper for the reasons discussed in section 6(a) above. Regardless, the FSEIR's response does not suggest that OCII or BAAQMD have changed the threshold of significance and does not suggest any basis for doing so; so the response does not address the concern in comments that the SEIR has failed to disclose the actual level of the risk. The comment requested that OCII disclose the actual risk based on current science, not that OCII re-characterize the significance of that risk.

Finally, as Rosenfeld and Jaeger explain, it is simply not true that OEHHA had not already recommended use of age-specific breathing rates, including the 1,090 L/kg-day rate for children, at the time of the Notice of Preparation.<sup>64</sup> OEHHA published and recommended use of higher, differential breathing rates for children in its *Technical Support Document for Exposure Assessment and Stochastic Analysis* in August 2012 well before the November 2014 Notice of Preparation and well before the SEIR's HRAs were prepared. This recommendation was made

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<sup>64</sup>Nov 2 SWAPE, p. 13.



pursuant to a mandate from the Children's Environmental Health Protection Act. And, as noted, the second HRA post-dates the OEHHA March 2015 guidance, in which OEHHA again recommended use of the higher differential breathing rates. Despite this, the FSEIR argues that it is somehow relevant that the second OEHHA guidance on this topic had not been issued prior to the DSEIR. (FSEIR, p. 13.13.50.) The implication of the FSEIR that the breathing rates were not well understood or established or that they somehow remained controversial is simply disingenuous.

Refusal to respond to responsible comments from experts regarding analytic parameters with reasoned analysis, as well as mischaracterization of the currency of those parameter, are failures to meet CEQA's disclosure obligations. For example, a court set aside an analysis of TACs that was based on outdated CARB guidance after comments pointed out this flaw and the final EIR declined to provide corrected analysis:

... the use in the final EIR of data extrapolated from CARB's 1991 speciation profile # 508 for measuring aircraft emission of TAC's did not meet the standard of "a good faith effort at full disclosure" required by CEQA. (Guidelines, § 15151.) "[W]here comments from responsible experts or sister agencies disclose new or conflicting data or opinions that cause concern that the agency may not have fully evaluated the project and its alternatives, these comments may not simply be ignored. There must be good faith, reasoned analysis in response." [citation omitted] By using scientifically outdated information derived from the 1991 profile, we conclude the EIR was not a reasoned and good faith effort to inform decision makers and the public about the increase in TAC emissions that will occur as a consequence of the Airport expansion.

*(Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs (2001) 91 Cal.App.4th 1344, 1367 [111 Cal.Rptr.2d 598, 615], as modified on denial of reh'g (Sept. 26, 2001.)*

Here, the failure to meet CEQA's mandate to use best efforts at analysis and to provide reasoned good-faith facts and analysis in response to comments was clearly prejudicial. Rosenfeld and Jaeger demonstrate that if excess cancers were determined using the OEHHA guidance for children's breathing rate rather than the outdated 2000 guidance, excess cancers would be materially increased and may exceed the threshold for a significant cumulative impact.<sup>65</sup> Because the FSEIR failed to respond substantively to the DSEIR comments and the SEIR fails to provide adequate information to determine how the changes to breathing rate data would affect the cumulative analysis, the SEIR fails as a disclosure document.

Here, the EIR should be revised and recirculated to provide a health risk assessment that is based on current science regarding the parameters that determine actual risk to children. The areas of maximum vulnerability to TACs from the Project include child receptors. (FSEIR, p. 14-

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<sup>65</sup>Nov 2 SWAPE, pp. 14-15; Nov 20 SWAPE, Exhibit 1, pp. 5-6.



114, 14-121.) And children are the most vulnerable to TAC exposure, as evidenced by the elevated excess cancer rates for children as compared to adults. (*See, e.g., FSEIR, Table 5.4-11, p. 14-121*).

**5. Changes to the Project since Publication of the DSEIR Require Recirculation for Public Comment Due to New and More Severe Significant Impacts.<sup>66</sup>**

Under CEQA, if the project changes after publication of the Draft EIR, and these changes create a new significant impact not identified in the Draft EIR, or a substantial increase in severity of a significant impact that was identified in the Draft EIR, the lead agency must recirculate the draft EIR for public comment. (CEQA section 21092.1.)

Here, the RTC describes a number of “construction refinements”, including using dewatering generators, using a soil treatment pug mill, and removing rapid impact compaction from the construction plan. With respect to the air quality impacts of these “construction refinements” the RTC states:

The addition of the construction refinements would not substantially increase (approximately 2 percent for ROG and 4 percent for NOx) the average daily construction-related emissions disclosed in the Draft SEIR. This would not result in a substantial increase in the severity of the previously identified significant and unavoidable impact, and the same mitigation measures would apply requiring the project sponsor to minimize construction emissions.

(RTC, p 12-22.)

The RTC also describes a new variant, the Muni UCSF/Mission Bay Station Variant, and discloses that:

The Muni UCSF/Mission Bay Station Platform Variant would not substantially increase (approximately 2 percent for ROG and 5 percent for NOx) the average daily emissions disclosed in the Draft SEIR for the proposed project (see Table 5.4-7, page 5.4-31). Furthermore, Mitigation Measure M-AQ-1 (Construction Emissions Minimization) would also apply to the variant. While the estimated construction emissions under the variant shown in Table 12-2 are slightly higher than those identified for the proposed project in the Draft SEIR, this impact is not substantially more severe than the previously identified significant and unavoidable impact.

(RTC, p 12-22.)

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<sup>66</sup>Nov. 2 Lippe FSEIR, pp 6-7.



There are several problems with these assertions. First, the RTC does not explain whether construction refinement caused increases of 2 and 4 percent for ROG and NOx, respectively, are included within or additive to the Platform Variant caused increases of 2 and 5 percent for ROG and NOx. Without this information, the public does not know what additional quantum of ozone pollution the RTC deems insubstantial.

Assuming for the moment that the increases caused by the construction refinements and the increases caused by the Platform Variant are summed together to reach the 2 and 5 percent numbers, the RTC offers no rationale why the 2 and 5 percent increases are not considered a “substantial” increase in the severity of the previously identified significant effect that Project construction will have on ozone precursor pollution. The RTC authors apparently believe these numbers speak for themselves. They do not. In fact, reliance on these numbers appears to reflect a silent assumption that these increases above the previously identified quantities of emissions for these pollutants is “de minimis.” It must be remembered, however, that these increases are not above a previously identified less-than-significant quantity of emissions; the previously identified quantities were significant!

The RTC thus commits the exact error of law rejected by the Court of Appeal in *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98 (“CBE”), i.e., using a “de minimis” rationale or any type of simple numerical ratio of the incremental impact compared to the pre-existing impact. “[T]he relevant question... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether ‘any additional amount’ of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant.” (Id. At p. 120; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-721.)

These increases should be considered substantial and the SEIR recirculated for public comment. Instead, the October 23, 2015, notice of publication of the Response to Comments informed the public they would have no opportunity to comment on the environmental effects of these changes in the Project.

## **C. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO TRANSPORTATION IMPACTS.**

### **1. The SEIR’s Analysis of the Project’s Construction-related Traffic Congestion and Delay Impacts Is Based on Invalid Criteria.<sup>67</sup>**

The DSEIR’s analysis of the Project’s construction related traffic congestion and delay impacts is legally flawed because it is based on invalid criteria, it fails to lawfully assess the

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<sup>67</sup>July 27 Lippe, pp. 5-7; July 23 Smith, p. 15; Nov 2 Smith FSEIR p. 22.



Project's cumulative construction period impacts, and it improperly defers the development of mitigation measures to reduce the Project's construction-related traffic impacts to less than significant.

The DSEIR states "Construction related impacts generally would not be considered significant due to their temporary and limited duration." (DSEIR, p. 5.2-46.) This statement is placed in the section describing the DSEIR's thresholds of significance. Therefore, it appears this conclusion reflects a policy decision rather than a fact-based assessment.

In the impacts analysis section, the DSEIR similarly states: "Construction related impacts generally would not be considered significant due to their temporary and limited duration." (DSEIR p 5.2-111). Elsewhere the DSEIR quantifies the construction period's "temporary and limited duration" as 26 months. (DSEIR, p. 5.2-112.) However, the notion that the DSEIR can determine the Project's construction related traffic impacts to be "less than significant" based primarily on their temporary duration is legally and logically flawed because from a cumulative standpoint, the Project's construction impacts are part of an essentially permanent, not temporary, condition of ongoing construction in this part of San Francisco. Indeed, the DSEIR's discussion of the Project's cumulative construction period impacts recognizes there are numerous other construction projects planned in Mission Bay and that the construction related traffic impacts of these projects will combine with this Project's construction related impacts. (DSEIR, p. 5.2-210 (Impact C-TR-1.)

However, the DSEIR's discussion of the Project's cumulative construction period impacts is flawed because it is constrained by several artificial limits. First, as discussed in section I.A above, the impact assessment is limited to impacts and intersections and freeway ramps within the artificially restricted geographic "study area." Second, the impact assessment considers only construction projects within the Mission Bay neighborhood without regard to whether other "past, present, or reasonably foreseeable future projects" may be "closely related" because their impacts may combine with the Project's impacts.

Third, the DSEIR's analysis of cumulative traffic impacts for *construction* of the project only references a handful of foreseeable projects located very close to the Project, and the DSEIR's discussion of these projects is solely in terms of whether their construction periods overlap with construction of this Project, as if the operational impacts of other "past, present, and reasonably foreseeable future projects" are not "closely related." (See DSEIR, p. 5.2-10 and 11.)<sup>68</sup> This is incorrect because "closely related" simply means the other projects' impacts may

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<sup>68</sup>These projects are:

- 1.13 million gsf of UCSF LRDP projects under construction at the Mission Bay Campus, including, the UCSF East Campus project on Blocks 33/34,
- Construction of Bayfront Park,
- realignment of Terry A. Francois Boulevard,
- construction of a neighborhood park on the north side of Mariposa Street east of Owens Street,



combine with the Project's impacts.

Table 3 in the July 21 Wymer, report shows that it is possible to include a broader range of projects - across both time and area - in the assessment of the Project's cumulative construction period traffic impacts, and that when this is done, there are many Projects that will be under construction or operational in the period before, during, and after construction of the Project whose effects will combine with those of the Warriors Arena construction. Therefore, the Project's construction impacts are part of an essentially permanent, not temporary, condition of ongoing construction and increasing operational impacts from new projects in this part of San Francisco. Therefore, the SEIR errs by artificially separating the Project's construction period impacts from its operational impacts and then basing its determination of significance on the "limited duration" of the construction period. (DSEIR, p. 5.2-212.)

The second basis for the DSEIR's less-than-significant determination is the DSEIR's statement that "construction activities would be ... required to be conducted in accordance with City requirements." (DSEIR, p. 5.2-212.) This vague assurance is meaningless because the SEIR does not specify what these "City requirements" are, does not specify a performance standard that these City requirements would either impose or achieve, and presents no evidence that these unspecified "City requirements" are likely to avoid significant cumulative construction related traffic effects. (See *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 95 (CBE); *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359; 1394 (Gentry).

The third and final basis for the DSEIR's less-than-significant determination is "Improvement Measure I-TR-1: Construction Management Plan and Public Updates." The DSEIR suggests this Plan would help avoid significant cumulative construction related traffic effects. (DSEIR, p. 5.2-212.) But it is improper for the DSEIR to rely on Improvement Measure I-TR-1 to help reduce impacts to less than significant because it is not identified as a mitigation measure necessary to substantially reduce significant Project impacts; therefore, it is not enforceable. (CEQA Guideline 15126.4(a)(4).)

Finally, the DSEIR fails to quantify the Projects' construction period impacts, presumably based on its qualitative conclusion that unspecified "City requirements" and "Improvement Measure I-TR-1" will avoid significant impacts. This puts the cart before the horse.<sup>69</sup>

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- the Exchange project on Mission Bay Block 40,
  - the Family House project on Mission Bay Block 7 East,
  - the Residential and Hotel project on Mission Bay Block 1,
  - the 360 Berry Street project on Mission Bay Block N4/P3, and
  - Caltrain's Peninsula Corridor Electrification Project.

<sup>69</sup>CEQA does not permit an agency to simply adopt mitigation measures in lieu of fully assessing a project's potentially significant environmental impacts because mere acknowledgment that an impact would be significant is inadequate; the EIR must include a detailed analysis of "how adverse" the impact would be.



The RTC acknowledges that construction impacts, even if temporary, may be significant:

While in most instances, construction-related transportation impacts are determined to be less than significant, some projects involving concurrent construction of multiple buildings on a constrained site, prolonged construction period, high intensity of construction activities, and with likely impacts to adjacent or nearby traffic, transit, pedestrian, and bicycle circulation have been determined to have significant and unavoidable construction-related transportation impacts (e.g., 5M Project).

(FSEIR vol. 4, p. 13.11-155). Thus, the City cannot simply dismiss these impacts as less than significant without independent analysis of the project itself, rather than an assumption that a temporary impact is by its very nature less than significant.

The RTC also argues the Planning Department's qualitative (rather than quantitative) analysis in this case is based on a several types of information that support the SEIR's "less-than-significant" conclusion. (FSEIR, Vol. 5, p. 13.11-155.) The problem with the SEIR's qualitative analysis is that, other than identifying these types of sources of information, it does not disclose either the specific *items* of information that support the SEIR's "less-than-significant" conclusion or *how* these sources of information support that conclusion.

## **2. The SEIR Fails to Assess the Project's Traffic Impacts on the Entire Affected Environment.<sup>70</sup>**

The DSEIR studies Project-induced increases in congestion and delay, for both incremental and cumulative impacts, at twenty-two (22) intersections and six (6) freeway ramps, as shown in Table 1.

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(*Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 655-56 *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1123; *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.)

<sup>70</sup>July 27 Lippe, p. 1; July 23 Smith, p. 8; July 21 Wymer, pp. 1-12; Nov 2 Smith FSEIR pp. 5-8; Nov 2 Wymer FSEIR.



**Table 1**

Incremental Impact Assessment (With Implementation of the Special Events Transit Service Plan)	Incremental Impact Assessment (Without Implementation of the Special Events Transit Service Plan)	Cumulative Impact Assessment
Intersections at DSEIR, p. 5.2-18, Table 5.2-34 p. 5.2-121, Table 5.2-35 p. 5.2-123, Table 5.2-36 p. 5.2-172, Table 5.2-47 p. 5.2-174, Table 5.2-48	Intersections at DSEIR, p. 5.2-192, Table 5.2-53 p. 5.2-193, Table 5.2-54	Intersections at DSEIR, p. 5.2-214, Table 5.2-59 p. 5.2-217, Table 5.2-60.
Freeway ramps at DSEIR, p. 5.2-133, Table 5.2-37 p. 5.2-133, Table 5.2-38 p. 5.2-134, Table 5.2-39 p. 5.2-181, Table 5.2-49 p. 5.2-181, Table 5.2-50	Freeway ramps at DSEIR, p. 5.2-198, Table 5.2-55 p. 5.2-198, Table 5.2-66	Freeway ramps at DSEIR, p. 5.2-221, Table 5.2-61 p. 5.2-221, Table 5.2-62

Remarkably, the DSEIR fails to disclose the criteria the City used to *exclude* other intersections and freeway ramps. The omission of this fundamentally important information renders the DSEIR so legally inadequate as an informational document that it frustrates CEQA's goal of providing the public with a meaningful opportunity to comment on the DSEIR.

Also, as shown in the letter reports from traffic engineers Larry Wymer and Dan Smith, the DSEIR omitted from its area of study numerous intersections and freeway ramps that will also suffer potentially substantial increases in traffic congestion and delay. (July 23 Smith, p. 8; July 21 Wymer, pp. 1-12; Nov 2 Smith FSEIR pp. 5-8; Nov 2 Wymer FSEIR.) The omission of these intersections and freeway ramps from the DSEIR's analysis of the Project's effect on traffic also renders the DSEIR so legally inadequate as an informational document that it frustrates CEQA's goal of providing the public with a meaningful opportunity to comment on the DSEIR.

How did this happen? The DSEIR simply states: "The traffic impact assessment for the proposed project was conducted for 23 study intersections and six freeway ramp locations in the vicinity of the project site" (DSEIR, p. 5.2-72),<sup>71</sup> with no further explanation. The same is true for the six freeway ramps. (DSEIR, p. 5.2-74.)

The DSEIR does inform the reader that:

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<sup>71</sup>The DSEIR actually studies 22 intersections, not 23, in the tables listed in footnote 1.



The impacts of the proposed project on the surrounding transportation network were analyzed using the Transportation Impact Analysis Guidelines issued by the Planning Department in 2002 (SF Guidelines 2002), which provides direction for analyzing transportation conditions and in identifying the transportation impacts of a proposed project.

(DSEIR, p. 5.2-69.) These Guidelines provide:

## 2. Project Setting

The setting information shall be presented immediately following the Project Description as a discrete chapter or report section. The goal is to provide a brief but complete description of existing transportation infrastructure and conditions in the vicinity of the project. Normally, the described vicinity is a radius between two blocks and 0.25 mile, however, a larger area may be determined in the scoping process. *The specific perimeters of the study area, for both setting and project impact analysis, are to be confirmed as part of the approval for the scope of work.*

(Transportation Impact Analysis Guidelines (October 2002), pp.6-7 (italics added).) Based on this text, the reader would expect to find the criteria and rationale for delimiting “the specific perimeters of the study area” in the Scope of Work which the City approved pursuant to these Guidelines as a prerequisite to preparation of the DSEIR. Unfortunately, this expectation is disappointing, because the City-approved Scope of Work is also silent on the topic. (DSEIR, Appendix TR, pp. TR-8 to TR 14.)

The RTC’s responses are inadequate. The RTC relies on the fact that similar approaches were used in other EIRs.<sup>72</sup> This is not relevant because the other referenced EIRs are not before this Board and are not adjudicated in a published Court of Appeal decision.

The RTC also responds that the lead agency has discretion to determine the geographic scope of the assessment area. (RTC, p. 13.11-25.) This response is not relevant to the comment here, i.e., on these facts the lead agency abused its discretion. These facts include the many recently built and approved projects in the downtown area whose traffic impacts will combine with the Projects impacts at many intersections outside the study area.

The RTC also responds that:

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<sup>72</sup>“The depth and approach of the analysis of freeway conditions presented in the SEIR is consistent with similar evaluations of transportation conditions conducted as part of recently completed or ongoing large planning studies in San Francisco, including the Central Corridor EIR, UCSF 2014 Long Range Development Plan (LRDP) EIR, California Pacific Medical Center LRDP EIR, etc. The 1998 Mission Bay FSEIR also did not address freeway ramp operation or queuing as a distinct transportation topic.” (RTC, p. 13.11-25.)



The study intersections were selected because they a) represent access points to the regional highway system, b) are located along major street corridors serving the Mission Bay Area, or c) are located in the immediate vicinity of the project site, and because they are the intersections most likely to be potentially affected by traffic generated by the proposed project. As stated on SEIR p. 5.2-15, the freeway ramps were selected for ramp operations analysis (i.e., four on-ramps and two off-ramps) as they represent the regional highway facilities most likely to be impacted by traffic generated by the proposed project.

(RTC, p. 13.11-25, 26.) Reasons a) and b) are non-responsive to the comment that the DSEIR failed to explain why it excluded large areas of the affected environment from the study area, because even if they support, including the intersections and ramps that were *included*, they say nothing about why additional intersections and ramps that were *excluded*.

Reason c), that “they are the intersections most likely to be potentially affected by traffic generated by the proposed project” is entirely conclusory and circular because the RTC justifies this unsupported assertion from the DSEIR by simply repeating it. Reason c) is also non-responsive, because the fact that intersections outside the study area are somewhat less likely than intersections within the study area to be affected does not mean they will not be affected in a potentially significant way. In sum, instead of data to support the exclusion of large portions of affected environment, the RTC offers up empty verbiage.

The RTC also relies to an unstated extent on “the Transportation Impact Analysis Guidelines issued by the Planning Department in 2002 (SF Guidelines)” which “suggests that a project study area would encompass a radius between two blocks and 0.25 miles, but that a larger area may be determined depending on the type of project.” (RTC, p. 13.11-27.) This document cannot lawfully excuse the lead agency from basing the size and location of the study area on the relevant facts of the case, including but not limited to “the type of project.”<sup>73</sup>

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<sup>73</sup>*Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109 [underscore emphasis added], citing *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 114 (“CBE”); accord *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 342 [“A threshold of significance is not conclusive...and does not relieve a public agency of the duty to consider the evidence under the fair argument standard.”]; *Californians for Alternatives to Toxics v. Department of Food & Agriculture* (2005) 136 Cal.App.4th 1, 16 (lead agencies must review the site-specific impacts of pesticide applications under their jurisdiction, because “DPR’s [Department of Pesticide Regulation] registration does not and cannot account for specific uses of pesticides..., such as the specific chemicals used, their amounts and frequency of use, specific sensitive areas targeted for application, and the like”); *Citizens for Non-Toxic Pest Control v. Department of Food & Agriculture* (1986) 187 Cal.App.3d 1575, 1587-1588 (state agency applying pesticides cannot rely on pesticide registration status to avoid further environmental review under CEQA); *Oro Fino Gold Mining Corporation v. County of El Dorado* (1990) 225 Cal.App.3d 872, 881-882 (rejects contention that project noise level would be insignificant simply by being consistent with general plan standards for the zone in question). See also *City of Antioch v. City Council of the City of Pittsburg* (1986) 187 Cal.App.3d 1325, 1331-1332 (EIR required for construction of road and



The RTC rejects the comment that the study area must include many South of Market intersections between downtown and Mission Bay because:

A comment noted that because some of the basketball game attendees would be arriving from the San Francisco downtown and Financial District areas, they would be required to pass through SoMa to arrive at the project site, so that additional intersections in the SoMa area would have to be evaluated. Mode of travel and place of origin surveys of baseball game attendees conducted by the SF Giants, as well as available parking occupancy surveys, suggest that many of those game attendees that drove to work at their jobs in the Financial District and SoMa areas, tend to walk, ride transit, or take a taxi to AT&T Park, leaving their cars at their commuter parking locations in order to avoid the evening commute congestion that typically occurs near I-80 and AT&T Park and having to re-park their cars at game-day rates. It is likely that a similar condition would occur with the proposed project, with many of those working in downtown riding Muni or special event shuttles, and taking taxis or TNC vehicles<sup>2</sup>, such as Uber or Lyft to the event center, rather than driving and having to park again with limited space availability.

(RTC, pp. 13.11-27, 28.)

The idea that people who work downtown would walk to the Warriors Arena because people who work downtown tend to walk to AT&T Park is unfounded and unsupported. A look at actual data suggests otherwise. According to Google Maps, walking from the Bank of America Building at California and Montgomery to AT&T Park takes 25 minutes; but to the Arena site, 41 minutes. Walking from the Transamerica Building at Washington and Montgomery to AT&T Park takes 29 minutes; but to the Arena site, 44 minutes. There is a time-of-walking tipping point beyond which people tend not to walk. The EIR's assumption that people will be willing to walk from downtown to Warriors games than it takes to walk to Giants games is unsupported.<sup>74</sup>

The idea that people who work downtown would take taxis or an Uber or Lyft type ride service to the Warriors Arena because people who work downtown tend to do so to AT&T Park supports the Alliance's comment, and more so, because these vehicles will travel through SOMA during the extremely congested peak PM time period, thereby making many intersections not included in the study area worse, and then they will return from the Arena in the same time

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sewer lines even though these were shown on city general plan); *Kings County Farm Bureau v. City of Hanford*, *supra*, 221 Cal.App.3d at pp. 712-718 (agency erred by "wrongly assum[ing] that, simply because the smokestack emissions would comply with applicable regulations from other agencies regulating air quality, the overall project would not cause significant effects to air quality.")..)

<sup>74</sup>See Nov 28 Smith, p. 1-2 and Exhibit A thereto.



period!

This response also ignores the fact that some people on the way to a Warriors game, after checking their online traffic maps, will exit from the Bay Bridge at Fremont and Harrison Streets and travel to the Arena through the SOMA intersections identified by Mr. Wymer as operating at LOS E or F but excluded from the study area. These people are traveling “from the downtown area” but are not considered in the response to comments because they do not “work” downtown.

In addition, the City’s response assumes that SOMA is so congested before game time that people would rather walk through SOMA than drive. If the environmental setting within a mile of the Arena is that heavily impacted (and the Alliance agrees it is), the SEIR cannot lawfully omit a full description of these conditions. (See *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 722-723; *Friends of the Eel River v. Sonoma County Water Agency* (2003) 108 Cal.App.4th 859, 881-882.) Indeed, the significance of a cumulative impact depends on the environmental setting in which it occurs, including the severity of existing environmental harm. (*Communities for a Better Environment v. California Resources Agency* (“*Communities*”) (2002) 103 Cal.App.4th 98, 120 [“[T]he relevant question”... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether “any additional amount” of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant. [footnote omitted]”]; *Kings County, supra*, 221 Cal. App. 3d at 720-721.) Therefore, the omission of this information from the SEIR represents a prejudicial failure to disclose required information.

The SEIR’s failure to study the affected area and to respond to comments on this issue are ably discussed by traffic engineer Dan Smith in his November 2, 2015, letter submitted to the OCII on November 3, 2015 (at pages 5-8 thereof). Reading his report is essential, but for present purposes I highlight one of his points: i.e., the SEIR excludes from its study area many intersections that are on the access route to and from the two UCSF hospitals located a block from the Project.

For example, using UCSF’s web interface for directions to the Medical Center to identify recommended emergency routes for Hyde and Bay, the primary recommended route is the Embarcadero to King, then Third. The secondary route is Hyde, then 8th. For the Transamerica building, the primary route is Clay/Drumm/Washington to Embarcadero, King, Third. The secondary route is Davis/Beale/Bryant/Embarcadero/Third. For Union Square, the primary is west on Geary, down Hyde/8th/Brannan/7th/16th. For the Bay Bridge, the primary is off at 8th and Harrison, down 8th/Brannan/7th/16th.<sup>75</sup> These documented emergency routes, and you could run plenty of other examples, demonstrate why the intersections along Eighth and along the Embarcadero should have been studied. The key intersections are the nine along the

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<sup>75</sup>See Nov 28 Smith, p. 2; Exhibit 14 to this brief



Embarcadero with Broadway, Washington, Market, Mission, Howard, Folsom, Harrison, Bryant and Brannan and the six on Eighth with Market, Mission, Howard, Folsom, and especially Harrison and Bryant.

Mr. Smith also refutes the response as follows:

the response cites 9 intersections along the Embarcadero and 15 along or east of Fourth Street that we claimed should have been studied. It claims that because the Project is shifted to its current location farther south-west from the originally proposed location on Piers 30-32, the primary routes to and from the Project site from Downtown, SOMA, the northern parts of the City and from the North Bay and the I-80 ramps would be shifted farther west, away from these intersections. But this is not true. Except for the relatively few instances in which there is a concurrent evening Giants game at AT&T park, the routes along the Embarcadero and along and east of Fourth Street remain the most effective and imageable routes to the currently proposed Project site and the parking facilities that serve it from much of the Downtown, SOMA, northern parts of the City, the North Bay and the I-80 ramps to and from the East Bay. Those paths are only likely to be altered on evenings with a concurrent Giants game. And if a massive shift of traffic further west was assumed in the City's thinking as it scoped the current SEIR and excluded the intersections along the Embarcadero and on and east of Fourth on that assumption, why didn't it add more intersections in the Eighth Street corridor (including but not limited to the ramps and intersections at Eighth and Harrison, Eighth and Bryant) and other intersections in the Van Ness, Franklin, Gough, Octavia corridors for example? The City has no good answer.

(Nov 2 Smith FSEIR p. 7.)

The RTC studies one intersection outside the study area, at 8th St and Brannan. But as Mr. Smith points out, this anecdotal approach is not a reliable indicator of effects at other intersections identified by Mr. Wyer as needing study, because this unusual intersection is "anomalous rather than exemplar of anything elsewhere" (Nov 2 Smith FSEIR p. 8.)

Consequently, the City must revise the DSEIR to include an analysis of the Project's congestion and delay impacts on the excluded intersections and freeway ramps and then recirculate the Revised DSEIR for at least 45 days for public review and comment.



**3. The SEIR Fails to Disclose the Severity of the Project's Impacts on Intersections and Freeway Ramps Which the Project Will Cause to Deteriorate to Level of Service (LOS) F.<sup>76</sup>**

In comments on the DSEIR, The Alliance objected that the DSEIR fails to disclose the severity of the Project's congestion and delay impacts on intersections and freeway ramps which the Project will cause to deteriorate to Level of Service (LOS) F. (July 27 Lippe, pp. 3-4.) For intersections and freeway ramps in the study area where Project-induced increases in congestion and delay will cause deterioration to LOS F, the DSEIR fails to provide a full measurement of the degree of severity of the significant impact. Instead, for intersections pushed to LOS F, instead of presenting a measure of average delay, the DSEIR provides a "greater than" measurement of "80 seconds per vehicle." (See 5.2-74 and Tables cited above.) For freeway ramps pushed to LOS F, instead of providing the average density, the DSEIR provides no measurement of "existing plus project" density. Instead, the severity of the Project's impacts at intersections and freeway ramps pushed to LOS F has no upper limit, and remains undisclosed, other than to note that "demand exceeds capacity." (See 5.2-75, Table 5.2-19 and Tables cited above.)

Thus, the DSEIR fails to comply with CEQA because, other than making the binary determination that the Project's impacts on these intersections and freeway ramps are significant, the DSEIR fails to disclose the severity of these significant impacts. (See *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831 ["The conclusion that one of the unavoidable adverse impacts of the project will be the 'increased demand upon water available from the Santiago County Water District' is only stating the obvious. What is needed is some information about how adverse the adverse impact will be"].) Consequently, the City must revise the DSEIR to include this missing information, then recirculate the Revised DSEIR for at least 45 days for public review and comment.

The RTC's response is inadequate for several reasons. First, it caricatures the Alliance's comments, stating:

The comment appears to state that an EIR, having determined that a project would cause or contribute to LOS F conditions, must also identify the specific number of seconds of delay expected to occur. That is, the comment appears to state that the EIR must state not merely that delay would be in excess of 80 seconds per vehicle, and therefore unacceptable; rather, the comment states the EIR must also identify how many seconds of delay, beyond the 80 seconds of average control delay signified by "LOS F," would occur.

(RTC, p. 13-11.49.) The RTC then argues that "CEQA does not require this." (RTC, p. 13-11.49.) The Alliance's actual comment is that, in addition to identifying these impacts as

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<sup>76</sup>July 27 Lippe, p. 3; July 23 Smith, p. 11; July 21 Wymer, p. 12-13; Nov 2 Smith FSEIR, p. 16-18; Nov 28 Smith, pp. 2-3.



significant, the SEIR must disclose their severity. The lead agency, not the Alliance, chose to use a “seconds of delay” metric. Having done so, the agency cannot refuse to disclose the severity of the impacts on the ground that CEQA does not require using this particular metric.

A good example of the SEIR’s failure to disclose relative severity of significant impacts is its impact assessment for the intersection of 7th/ Mississippi and 16th Street. Figure 1 contrasts the impact assessment data for this intersection for the Weekday PM Peak Hour (i.e., 4 - 6 p.m) and Weekday Evening time periods as shown in the DSEIR, at Table 5.2-34 (p. 5.2-118) and Table 5.2-47 (p. 5.2-172) with the impact assessment data for this intersection shown in the Appendix containing the transportation analysis raw data (i.e., SEIR, Vol. 3, Appendix-TR.)

**Figure 1: 7th/Mississippi and 16th St**

	Existing Without Giants Game	Existing Plus Project - Without Giants Game			Existing With Giants Game	Existing Plus Project - With Giants Game
	Existing	No Event	convention	Basketball Game	Existing	Basketball Game
Time Period	Delay LOS	Delay LOS	Delay LOS	Delay LOS	Delay LOS	Delay LOS
DSEIR, PM Peak	68.6 E <i>Table 5.2-34</i>	>80 F <i>Table 5.2-34</i>	>80 F <i>Table 5.2-34</i>	>80 F <i>Table 5.2-34</i>	>80 F <i>Table 5.2-47</i>	>80 F <i>Table 5.2-47</i>
Appendix, PM Peak <i>Appendix Page #</i>	68.6 E <i>TR-179</i>	87.8 F <i>TR-275</i>	83 F <i>TR-299</i>	80.8 F <i>TR-311</i>	84.7 F <i>TR-191</i>	151.9 F <i>TR-323</i>
DSEIR, Evening	60.1 E <i>Table 5.2-35</i>	NA	NA	>80 F <i>Table 5.2-35</i>	75.6 E <i>Table 5.2-48</i>	>80 F <i>Table 5.2-48</i>
Appendix, Evening <i>Appendix Page #</i>	68.6 E <i>TR-203</i>	NA	NA	107.6 F <i>TR-335</i>	75.6 E <i>TR-215</i>	178.7 F <i>TR-347</i>



As this table shows, for certain conditions, the LOS data in the Appendix shows much greater LOS impacts for than the SEIR discloses in its summary tables, in some cases showing double or more than double the “>80” figure used in the summary tables (see yellow highlighted cells). This example is only one of 22 intersections in the study area.

The RTC argues that LOS metrics are not “reliable” above LOS F.<sup>77</sup> As traffic engineer Smith points out, where the above-LOS F delay calculations are substantial, they are meaningful even if somewhat imprecise, and should have been disclosed. (Nov 2 Smith FSEIR p. 17 [“where “the results might be 27 seconds added instead of a half-minute or 55 seconds added instead of a minute”]; Nov 28 Smith, pp 203.)

Also, the RTC’s response that LOS metrics are not “reliable” above LOS F is non-responsive to the Alliance’s actual comment (i.e., the SEIR must disclose the severity of significant impacts), rather than the RTC’s caricature of the comment focused solely on LOS metrics. If another metric is better, the SEIR should use it.

The RTC also argues that the Legislature has delegated to the Secretary of Resources the authority to change the legal standards governing an EIR’s analysis of traffic impacts in this location. (RTC, p. 13-11.51, 52.) Since such changes have not occurred, and may never occur, the possibility that they could occur cannot excuse the lead agency’s compliance with the law in effect now.

The RTC also suggests that increased traffic congestion is not an “environmental” impact under CEQA at all, stating: “In general, the effects of worsened congestion translate primarily into increased inconvenience to people, but not into adverse effects on public health or ecosystems.” (RTC, p. 13-11.51.) But the lead agency has demonstrated no courage in this conviction since it devoted hundreds of pages and thousands of dollars to the SEIR’s analysis of traffic impacts. Moreover, the Legislature’s amendment of CEQA to delegate authority to the Secretary of Resources to change the legal standards governing an EIR’s analysis of traffic impacts conclusively demonstrates that traffic impacts are “environmental” impacts under CEQA.

The RTC also argues that using LOS F as a metric for significance without disclosing the severity of the impacts at these intersections is sufficient for purposes of considering mitigation measures to reduce these impacts. (RTC, p. 13-11.50.) Even if this is true, the SEIR remains informationally deficient in this regard because without a legally adequate description of the nature and extent of the Project’s environmental harm, the lead agency cannot properly weigh whether the Project’s benefits outweigh that harm.

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<sup>77</sup>RTC, p. 13-11.50 [“LOS F reflects unstable traffic conditions whose severity is not reliably replicated for future conditions by the traffic LOS analysis tools used for traffic impact studies”].



#### **4. The SEIR Fails to Identify the Significance and Severity of the Project's Impacts on Intersections Where the Project Will Use Parking Control Officers.**

The Alliance commented that the DSEIR failed to provide quantitative impact assessments for two intersections (King/Third and King/Fourth) when the Project's basketball games coincide with a Giants' game in the Weekday PM/Saturday Evening Peak Hour and Weekday Evening/Late Evening Peak Hour time periods. (DSEIR, p. 5.2-172, Table 5.2-47; p. 5.2-174, Table 5.2-48)". Because the DSEIR provides no LOS or delay measurements for Project impacts with a Giants' game at these times, it does not inform the public whether the Project's congestion and delay impacts on these intersections are significant, and if so, the severity of these significant impacts. (July 27 Lippe, p. 4, July 23 Smith, p. 11; Nov 2 Smith FSEIR pp. 16-18.)<sup>78</sup>

The RTC responds that "the intersection LOS and delay values for the intersections of King/Third and King/Fourth are provided on SEIR Table 5.2-34 through Table 5.2-36 for the various analysis hours." (FSEIR, Vol. 4, p. 13.11-53.) This is non-responsive because these tables describe the Project's impacts *without a Giant's game*.

The RTC also responds that: "the analytical tools and measurements appropriate for assessing the effectiveness of mechanized systems do not apply to PCO-controlled intersections. For all of these reasons, the intersection LOS at PCO-controlled intersections does not provide meaningful information and is not presented for those locations where PCOs already actively manage intersection operations." (FSEIR, Vol. 4, p. 13.11-53.) As discussed in section II.C.3 above, if another metric is better, the SEIR should use it, and the lack of precision in above-LOS F delay calculations are not relevant where the delays are substantial and the margin of error is slight (e.g., where "the results might be 27 seconds added instead of a half-minute or 55 seconds added instead of a minute." (Nov 2 Smith FSEIR p. 17.)

The RTC also responds that: "PCOs are an effective way to minimize traffic impacts that may occur otherwise." (FSEIR, Vol. 4, p. 13.11-53.) This is non-responsive because, under CEQA, mitigating impacts occurs after determining their significance and severity, not before. (*Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 655-56.)

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<sup>78</sup>Instead, the DSEIR indicates that the Project calls for posting Parking Control Officers (PCOs) at these intersections at the times indicated. But the adoption of a mitigation measure cannot substitute for disclosing whether the Project's impacts on these intersections are significant or their severity CEQA does not permit an agency to simply adopt mitigation measures in lieu of fully assessing a project's potentially significant environmental impacts because mere acknowledgment that an impact would be significant is inadequate; the EIR must include a detailed analysis of "how adverse" the impact would be. (*Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 655-56 *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1123; *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.)



The RTC also responds that the SEIR “describes the potential impacts at the study intersections in detail without the implementation of any of the proposed mitigation measures.” (FSEIR, Vol. 4, p. 13.11-54.) This is simply not true for overlapping Giants and Warriors games in the PM Peak and Evening hours at the King/Third and King/Fourth intersections (see SEIR, Vol 1, pp. 5.2-171-180.)

**5. The SEIR’s Analysis of the Project’s Operational Traffic and Transit Congestion and Delay Impacts Is Legally Flawed.**

**(a) The DSEIR understates traffic and transit volumes in the PM peak period of 4:00 to 6:00 PM by using “time of arrival” at the Arena as a proxy measurement for “time of travel.”**

The Alliance commented on the DSEIR that it used insufficient information and patently flawed logic in assuming only 5% of basketball game attendees will be traveling in the “study area” in the PM peak period of 4:00 to 6:00 p.m. (July 27 Lippe, pp. 7-11; July 23 Smith, p. 1; July 21 Wymer, p. 12-13; Nov 2 Smith FSEIR p. 13-16).

Table 5.2-21 states that 5% of arrivals are expected before 6:00 p.m. for 7:30 p.m. weekday basketball games; another 11% will arrive between 6:00 and 6:30 p.m. (DSEIR, p. 5.2-83.) This data is based on turnstile counts of people entering the arena. As explained by Dan Smith, this proxy measurement does not provide reliable data as to when game or event attendees are actually traveling through affected intersections or freeway ramps or using affected transit routes, and this error infects the entire analysis of the Project’s transit and traffic impacts. (July 23 Smith, p. 3.)<sup>79</sup>

Common sense indicates that many or most of the 11% that the DSEIR says arrive at the turnstile between 6:00 and 6:30 p.m. would be traveling to the event in the PM peak period of 4:00 to 6:00 pm. This minimal adjustment alone changes the assumption on which the modeling is based from 5% to 16% traveling in the “study area” in the PM peak period of 4:00 to 6:00 pm. As shown by Mr. Smith, this minimal adjustment more than doubles the Project’s contribution of traffic to affected intersections, and would change the DSEIR’s determination from less-than-significant to significant at some intersections. (July 23 Smith, p. 3.)

This issue was flagged in public scoping comments on the DSEIR. (DSEIR, p. 2-15.)

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<sup>79</sup>In his analysis, Mr. Smith found: “it seems highly probable that as much as one-third or more of the trips that the DSEIR considers to take place in the 6 to 7 PM period and the 7 to 8 PM period would actually be on the transportation system in the more critical 5 to 6 PM commute peak hour. That would put 7,466 event-related travelers on the transportation system in the 5 PM to 6 PM period instead of the 1,866 assumed in the DSEIR, a difference that would likely result in transportation impacts not disclosed in the DSEIR and/or intensification of impacts and mitigation needs of those that were disclosed.” (July 23 Smith, p. 3.)



Yet, somehow, the DSEIR did not adjust its reliance on turnstile data to develop a reliable metric to use instead. Instead, the DSEIR offers a series of weak or irrelevant rationales for its methodology, including:

because basketball games typically start at 7:30 p.m. a higher percentage of inbound event attendees would travel to the event center during the 6:00 to 8:00 p.m. period than during the 4:00 to 6:00 p.m. commute peak period.

(DSEIR p. 5.2-71); and

the SF Guidelines do not include travel demand characteristics for the specialized uses (e.g., sports events, conventions, and other events) that would take place at the proposed event center. Similarly, standard trip generation resources, such as the Institute of Transportation Engineer's Trip Generation Manual, do not include sufficiently detailed trip generation data for such specialized uses. Therefore, the travel demand for the event center component of the proposed project was based on the estimated attendance, as well as information on current travel characteristics of Golden State Warriors basketball attendees at the Oracle arena in Oakland.

(DSEIR, p. 5.2-81); and

The data are based on information provided by the Golden State Warriors for their current facility, which was then adjusted to provide for earlier arrival patterns based on comparable information collected at similar NBA facilities to account for the increased availability of retail and restaurant uses at the proposed project site compared to Oracle Arena in Oakland. A summary of this data is provided in the travel demand technical memorandum included in Appendix TR.

(DSEIR, p. 5.2-82.)<sup>80</sup>

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<sup>80</sup> In the "Travel Demand Methodology and Results" section of Chapter 5.2, the DSEIR states:

The Basketball Game scenario reflects the travel demand of the office, retail and restaurant uses, plus an evening basketball game. The transportation impact analysis of the Basketball Game scenario was conducted for four analysis hours (weekday p.m., weekday evening, weekday late evening, and Saturday evening), for conditions without and with an overlapping SF Giants evening game at AT&T Park.

Table 5.2-21 presents the expected temporal distribution of arrival and departure patterns for basketball game attendees of the proposed project. The data are based on information provided by the Golden State Warriors for their current facility, which was then adjusted to provide for earlier arrival patterns based on comparable information collected at similar NBA facilities to account for the increased availability of retail and restaurant uses at the



A discussion and summary of the data from other venues than Oracle is provided in DSEIR, Appendix TR, at pp. TR-21 to TR-25 and TR-37 [Appendix A, p. A-9]. The table at page TR-37 provides time of arrival data from, in addition to Oracle, six purportedly “comparable” venues, namely: Icon Venue Group, Houston, Phoenix, Sacramento, Brooklyn (2013-2014), and Brooklyn (2014-2015). An interesting fact about this table is that the data for 4:00 to 6:00 p.m. arrivals at four of these six venues (i.e., Icon Venue Group, Houston, Phoenix, Sacramento) is “included in” the data for later time periods. So, in fact, the only purportedly comparable venue for which the DSEIR presents supporting data is Brooklyn (2013-2014 and 2014-2015). The venue with the largest proportion of arrivals in the 4:00 to 6:00 p.m. period is Brooklyn (2014-2015), with 4.1%.

In short, the City and the Warriors failed to develop accurate, reliable data on the key variable in the entire transportation analysis, i.e., the number of people traveling to events in the peak PM time period when traffic and transit crowding are at their worst. A lead agency “must use its best efforts to find out and disclose all that it reasonably can.” (CEQA Guideline, § 15144.)

The above quoted rationales do not excuse this failure. The scoping comments flagging this issue were submitted to the City between November 19, 2014, and December 19, 2014, during the middle of the basketball season. (DSEIR, p. 2-8 and 2-9, 2-15.) The Warriors played fifty-seven (57) games between December 19, 2014, through the close of the regular season on April 15, 2015.<sup>81</sup> There are thirty (30) teams in the NBA.<sup>82</sup> That means there were approximately eight-hundred and fifty five (i.e.,  $15 \times 57 = 855$ ) regular season games played in the 2014-2015 regular season after December 19, 2014. In the playoffs following the regular season, sixteen teams played a total of seventy-nine games after April 15, 2015.<sup>83</sup>

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proposed project site compared to Oracle Arena in Oakland. A summary of this data is provided in the travel demand technical memorandum included in Appendix TR. Based on this information, it was assumed that approximately 5 percent of arrivals to a basketball game would occur during the p.m. peak hour (5:00 to 6:00 p.m.), and up to 66 percent of arrivals would occur during the evening peak hour (7:00 to 8:00 p.m.). Similarly, up to 70 percent of the departures would occur during the late evening peak hour (9:00 to 10:00 p.m.). Event staff for basketball games would be expected to arrive between 4:30 and 5:00 p.m. and would be on post prior to the gate opening time; event staff would leave between 11:00 and 11:30 p.m.

(DSEIR, p. 5.2-82.)

<sup>81</sup><http://www.nba.com/warriors/schedule>

<sup>82</sup><http://www.nba.com/teams/?ls=iref:nba:gnav>

<sup>83</sup><http://www.nba.com/playoffs/>



Therefore, both the Warriors and the City had ample opportunity to conduct market research by interviews and exit polling of a sample of the hundreds of thousands of fans attending these games to discover how far in advance of arriving at the turnstile they traveled through the traffic and transit impacted area surrounding the venue. The City's and Warriors' decision to pass up this opportunity after being informed of the issue does not satisfy their duty to use best efforts to find out and disclose all they reasonably can.

Indeed, the City was fully aware of the need to gather information more relevant to fans "time of travel" than turnstile counts and made some efforts to do so. But it failed to disclose that there are alternative metrics for "time of travel" or the results of its efforts in this regard. For example, an email exchange dated January 12, 2015, between the City's EIR consultant (ESA) and City Planning officials includes data on arrivals before 6:00 p.m. at the Arco Arena parking lot for a 7:00 p.m. Sacramento Kings game and arrivals before 6:00 p.m. in buildings for other NBA venues. (See July 27 Lippe, Exhibit 3.) Thus, the City was aware of other measurements (e.g., parking lot entry rather than turnstile counts) that could more accurately predict peak PM period travel to games.

Also, the arrival numbers cited in this email exchange show 14% arriving at the Arco Arena parking lot before 6 p.m. for one 7 p.m. game and 9% arriving before 6 p.m. in buildings for other NBA venues. These numbers indicate the DSEIR's assumption that 5% of fans will be traveling through the study area before 6 p.m. for 7:30 p.m. games is vastly understated. Yet the DSEIR fails to reference these numbers.

The RTC responds by reciting the information presented in the DSEIR from other NBA venues that the Alliance's comment on the DSEIR critiqued as irrelevant. (See July 27 Lippe, pp. 9-11; FSEIR, Vol. 4 pp. 13.11-41, 42.) The RTC also responds that: "Additional surveys of attendee arrivals at the Oracle Arena where the Golden State Warriors currently play or other NBA facilities, as suggested in a comment, were deemed unnecessary, because, as noted above, arrivals to the Oracle Arena during the 5:00 to 6:00 p.m. peak hour are low (about 1 percent of the total) and because data from another location with similar urban and development conditions to the proposed project (i.e., Barclays Center in Brooklyn, New York) was already available." FSEIR, Vol. 4 pp. 13.11-42.) These responses, however, are non-responsive to the comments that turnstile data, no matter what venue it is from, is not a valid proxy for travel in the 4-6 PM peak period for a 7:30 PM game time, and the Warriors and City's failure to gather relevant data renders the SEIR informationally deficient.

The RTC also responds by contesting Mr. Smith's estimate that as many as one-third of game patrons may be traveling to the Arena in the 4-6 PM park period, stating: "Though some of the points raised in the comments seem intuitively believable, actual data from comparable situations show that the comments have exaggerated the likely numbers of people would arrive before 6:00 p.m. for a 7:30 p.m. event." (FSEIR, Vol 4, p. 13.11-41.) This response, however, is non-responsive to the "common sense" point made above that many or most of the 11% that the DSEIR says arrive at the turnstile between 6:00 and 6:30 p.m. would be traveling to the event in



the PM peak period of 4:00 to 6:00 pm, and even this minimal adjustment would change the DSEIR's determination from less-than-significant to significant at some intersections. (July 27 Lippe, p. 8; July 23 Smith, p. 3.)

**(b) The DSEIR only analyzes impacts of weeknight basketball games that start at 7:30 PM, not at other start times closer to the PM peak.<sup>84</sup>**

The Alliance commented on the SEIR that it fails to include reasonably foreseeable weekday Warriors basketball games starting at 6:00 pm rather than 7:30 pm, and this omission is important because even using the SEIR's turnstile count as a proxy for travel time to the Arena, 6:00 pm games require that fans travel in the 4-6 pm peak period, and this scenario should have been included in the impact assessment. (See July 23 Smith, p. 5 at COM-129.)

The RTC responds that "The variability of preseason and postseason games' timing is due in part to TV deals, opposing team traveling schedules, and/or outcomes of postseason series that are beyond the scope of Golden State Warriors control" (FSEIR, Vol. 4, p. 3.11-11) and that it is not precisely known how many of these games there will be. This is non-responsive, because under CEQA, the test for whether future activities associated with a project must be included in the impact assessment is not whether such activities are under the Project Sponsor's exclusive control, it is whether the future activities are reasonably foreseeable and may contribute to significant environmental effects. (*Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 395-396.) Here, both parts of the test are met. The Warriors have played in Oakland for 50 years and have won two NBA championships in that time period. Therefore, the frequency of 6:00 pm games in the past 50 years is known, and can easily be translated into an annual average that could be used for the next 50 years when the Warriors intend to play in San Francisco. Also, because traffic conditions are so bad already, small increments are enough to register as cumulatively significant. (*Communities for a Better Environment v. California Resources Agency* ("CBE") (2002) 103 Cal.App.4th 98,119-120.) Therefore, the omission of 6:00 pm games from the Project description and impact assessment is prejudicial.

**6. The SEIR's Analysis of the Project's Cumulative Transportation Impacts Does Not Comply With CEQA.**

**(a) The 5% threshold of significance for impacts at intersections and freeway ramps operating at LOS E or F violates CEQA.<sup>85</sup>**

For intersections operating at LOS E or F, the DSEIR uses a threshold of significance of "a contribution of 5 percent or more to the traffic volumes at the critical movements operating at

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<sup>84</sup>July 23 Smith, p. 5; July 21 Wymer, pp. 12-13; Nov 2 Smith FSEIR pp. 3-5.

<sup>85</sup>July 27 Lippe, p. 11. [Comment 2i.]



LOS E or LOS F” (DSEIR, p. 5.2-73-74.) For freeway ramps operating at LOS E or F, the DSEIR uses a threshold of significance of “a contribution of 5 percent or more to the traffic volumes on the ramp.” (DSEIR, p. 5.2-74.)<sup>86</sup>

No rationale for the 5% threshold is provided. Indeed, blind reliance on this number ignores the law governing the assessment of cumulative impacts, which requires a fact based assessment that takes into account the severity of preexisting impacts. A one-size-fits-all “ratio” violates CEQA. (See *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 120 (“*Communities*”); *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-21 (*Kings County*). *Communities* and *Kings County* teach that the significance of a cumulative impact depends on the environmental setting in which it occurs, especially the severity of existing environmental harm, and that focusing on the magnitude (i.e., “ratio”) of the Project’s incremental contribution to severe preexisting harm is inconsistent with the definition of cumulative impacts under CEQA.<sup>87</sup>

The RTC says: “Using their expertise regarding traffic analysis in the city, the City and its traffic consultants determined that using a ‘5 percent contribution’ as the threshold of significance was appropriate.” (FSEIR, Vol. 4, p. 13.11-72.) But invoking the agency’s expertise can only go so far. That expertise must be “supported by facts” and cannot be “unsubstantiated.” (CEQA Guideline 15384.) “A clearly inadequate or unsupported study is entitled to no judicial deference.” (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 410, ft. 12.) Here, the Planning Department’s “expert opinion” is based on legal error because it views transportation impacts as less deserving of scrupulous compliance with CEQA information disclosure requirements as other types of environmental. (See FSEIR, Vol. 4, p. 13.11-73.) Again, as noted above, the Legislature’s amendment of CEQA to delegate authority to the Secretary of Resources to change the legal standards governing an EIR’s analysis

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<sup>86</sup>“The project may result in significant adverse impacts at intersections that operate at LOS E or LOS F under existing conditions depending upon the magnitude of the project’s contribution to the worsening of the average delay per vehicle.” (DSEIR, p. 5.2-45.)

<sup>87</sup>(*Communities*, 103 Cal.App.4th at p. 120 [“[T]he relevant question”... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether “any additional amount” of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant. [footnote omitted]”]; *Kings County*, 221 Cal.App.3d at pp. 720-21 [“They contend in assessing significance the EIR focuses upon the ratio between the project’s impacts and the overall problem, contrary to the intent of CEQA.... We find the analysis used in the EIR and urged by GWF avoids analyzing the severity of the problem and allows the approval of projects which, when taken in isolation, appear insignificant, but when viewed together, appear startling. Under GWF’s ‘ratio’ theory, the greater the overall problem, the less significance a project has in a cumulative impacts analysis. We conclude the standard for a cumulative impacts analysis is defined by the use of the term ‘collectively significant’ in Guidelines section 15355 and the analysis must assess the collective or combined effect of energy development”].)



of traffic impacts conclusively demonstrates that traffic impacts are “environmental” impacts under CEQA.

**(b) The year 2040 baseline for assessing the significance of the Project’s cumulative impacts violates CEQA.<sup>88</sup>**

The SEIR’s excessively distant time frame and massive development assumptions masks the Project’s nearer term cumulative impacts. The SEIR assesses the Project’s incremental traffic and transit impacts and its cumulative traffic and transit impacts pegged to the year 2040, which is 25 years in the future.<sup>89</sup> While the Alliance supports such long range forecasting in general, as used in this SEIR the year 2040 baseline for assessing the significance of the Project’s cumulative impacts is misleading, for two reasons.

First, this approach overlooks the Project’s cumulative traffic and transit impacts pegged to its first 1 to 10 years of operations. This time period is of immediate interest to the citizens of San Francisco because the traffic mess predicted by the DSEIR will be upon them then. And who among them know whether they will even be in the City by the year 2040. Thus, while including a year 2040 baseline is not in itself objectionable, the omission of a baseline 5 to 10 years in the future renders the DSEIR informationally defective.

Second, by using a baseline projected to the year 2040, the SEIR inflates the denominator in the 5% “ratio” it uses to determine the significance of Project cumulative impacts at LOS E and F intersections, thereby masking actual near-term significant effects. (See July 23 Smith, p. 25.)

The RTC states: “CEQA contains no rule fixing the time horizon for cumulative impacts analyses.” (FSEIR, Vol. 4, p. 13.11-65.) This is true, but all it means it that the time horizon or horizons selected must provide meaningful public disclosure of the Project’s environmental effects. The SEIR fails to disclose the significance of the Project’s cumulative impacts for the next 25 years!

The SEIR fails to respond to the Alliance’s comment that using the projection based approach over a 25 year future time horizon inflates the denominator in the calculation that is compared to the 5% threshold used to determine the significance of Project cumulative impacts at LOS E and F intersections. Elsewhere, the RTC contends that increasing the geographic scope the traffic study area risks diluting the Project’s contribution to impacts to the point of masking

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<sup>88</sup>July 27 Lippe, p. 12; July 23 Smith, pp. 25-26; Nov 2 Smith FSEIR pp. 20-22. [Comment 2h.]

<sup>89</sup>“Future 2040 cumulative traffic volumes were estimated based on cumulative development and growth identified by the San Francisco County Transportation Authority SF-CHAMP travel demand model, using model output that represents Existing conditions and model output for 2040 cumulative conditions.” (DSEIR, p. 5.2-110.)



the Project's impacts. (FSEIR, Vol. 4, p. 13.11-26 ["As noted in CEQA case law related to the analysis of cumulative impacts, a geographic scope that is too extensive may dilute the significance of potential impacts"].) This risk also applies to the time horizon as well as geographic space. The amount of "cumulative" traffic against which this Project's contribution must be judged in terms of whether it is "cumulatively considerable" is higher the more future years are included. Using a 25 year horizon only, and ignoring a 10 or 15 year horizon makes it that much more difficult for this Project's contribution to tip the 5% threshold.

**(c) The SEIR's use of a "projection" based approach to the Project's cumulative impacts is misleading.<sup>90</sup>**

The DSEIR states that:

Future 2040 cumulative traffic volumes were estimated based on cumulative development and growth identified by the San Francisco County Transportation Authority SF-CHAMP travel demand model, using model output that represents Existing conditions and model output for 2040 cumulative conditions. .... The 2040 cumulative traffic volumes take into account cumulative development projects in the project vicinity, such as the build-out of the Mission Bay Area, completion of the UCSF Research Campus and the UCSF Medical Center, the Mission Rock Project at Seawall Lot 337, Pier 70, etc., as well as the additional vehicle trips generated by the proposed project.

(DSEIR, p. 5.2-110.)<sup>91</sup>

The DSEIR presents no evidence supporting the DSEIR's assumption that the year 2040 projection is reliable for predicting future traffic and transit demand, other than the vague assertion that the "SF-CHAMP travel demand model, using model output that represents Existing conditions and model output for 2040 cumulative conditions ... has been validated to represent future transportation conditions in San Francisco." (DSEIR, p. 5.2-110.) But, as explained by Mr

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<sup>90</sup>July 27 Lippe, p. 13.

<sup>91</sup>In the section titled "Approach to Cumulative Impact Analysis" (DSEIR 5.1-6, § 5.1.5), the DSEIR asserts that the CEQA Guidelines provide "two approaches to a cumulative impact analysis ... (a) the analysis can be based on a list of past, present, and probable future projects producing related or cumulative impacts; or (b) a summary of projections contained in a general plan or related planning document can be used to determine cumulative impacts. The projections model includes individual projects and applies a quantitative growth factor to account for other growth that may occur in the area." (DSEIR, p. 5.1-7.) The DSEIR asserts that "The analyses in this SEIR employ both the list-based approach and a projections-based approach, depending on which approach best suits the individual resource topic being analyzed ... the Transportation and Circulation analysis relies on a citywide growth projection model that also encompasses many individual projects anticipated in and surrounding the project site vicinity, which is the typical methodology the San Francisco Planning Department applies to analysis of transportation impacts." (DSEIR, p. 5.1-7.)



Smith, the SF-CHAMP model's margin of error is greater than the 5% threshold used to determine the significance of Project cumulative impacts at LOS E and F intersections. (See July 23 Smith, p. 25.) Therefore, SF-CHAMP is the wrong tool for the task.

Further, given the sheer number of developments in this area of the City (see July 21 Wymer, Table 3) and the breakneck pace of their approval and implementation, the projection approach is misleading, not informative. Therefore, the DSEIR's cumulative impact assessment must use a list based approach to forecast reasonably foreseeable travel demand, and do so in a meaningful time frame.

The RTC does not specifically respond to this Alliance comment, but it does offer a general justification for using the projection approach, which is that the CEQA Guidelines authorize, and the City has a longstanding practice of, doing so. (FSEIR, Vol. 4, p. 13.11-65.) But these justifications fail where, as here, the analysis is misleading or fails to provide required information.

## **7. The DSEIR's Methodology for Analyzing Project Impacts on the Transit System Is Legally Flawed.**

The DSEIR summarizes its methodology for analyzing Project Impacts on the transit system, as follows:

The impact of additional transit ridership generated by the proposed project on local and regional transit providers was assessed by comparing the projected ridership to the available transit capacity at the maximum load point. Transit "capacity utilization" refers to transit riders as a percentage of the capacity of the transit line, or group of lines combined and analyzed as screenlines across which transit lines travel. The transit analyses were conducted for the peak direction of travel for each of the analysis time periods.

(DSEIR, p. 5.2-75.)

This methodology contains two flaws. First, it suffers from the same unwarranted and unsupported assumptions about basketball fans' time of travel to the arena for games described above. Second, the DSEIR's use of transit screenline and route capacities is also misleading and unsupported.

### **(a) The DSEIR's use of transit screenline and route capacities is misleading and unsupported.<sup>92</sup>**

The SEIR's use of transit screenline and route capacities is misleading and unsupported,

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<sup>92</sup>July 27 Lippe, p. 14; July 23 Smith, pp. 5-8; Nov 2 Smith FSEIR p. 18-20.



so the City's process for evaluating a project's impacts on public transit evades disclosure of significant impacts. The SEIR's use of a project specific threshold of significant impact of 100 percent of screenline capacity rather than the normal 85 percent of screenline capacity exacerbates overcrowding impacts on the regular user community of and is unsupported and unwarranted.

For its Project specific (or incremental) transit impact analysis, the DSEIR uses the following thresholds of significance:

The proposed project was determined to have a significant transit impact if project-generated transit trips would cause downtown or regional screenlines, and, where applicable, directly affected routes, operating at less than its capacity utilization standard under existing conditions, to operate at more than capacity utilization standard. For Muni, the capacity utilization standard is 85 percent for conditions without an event at the project site, and 100 percent for conditions with an event at the project site. For regional operators, the capacity utilization standard is 100 percent for conditions without and with an event at the project site.

(DSEIR, p. 5.2-76, 77.)

For its cumulative transit impact analysis, the DSEIR uses the following thresholds of significance:

Under 2040 cumulative conditions, the proposed project was determined to have a significant cumulative impact if its implementation would cause the capacity utilization at the Muni and regional screenlines and/or corridors within the screenlines to exceed the capacity utilization standard noted above for conditions without and with an event at the project site, or if its implementation would contribute considerably to a screenline or corridor projected to operate at greater than the capacity utilization standard under 2040 cumulative plus project conditions (i.e., a contribution of 5 percent or more to the transit ridership on the screenline or route). In addition, if it was determined that the proposed project would have a significant project-specific transit impact under existing plus project conditions, then the impact would also be considered a significant cumulative impact under 2040 cumulative conditions.

(DSEIR, p. 5.2-76, 77.)

For both Project specific (incremental) and cumulative impacts, the DSEIR uses "capacity utilization standards" as baselines against which to measure the Project's impacts. Capacity utilization standards are specific percentages of the theoretical maximum capacity of a transit screenline or transit line.



For Project specific (or incremental) thresholds of significance for Muni, the DSEIR uses two different capacity utilization standards against which to measure the Project's impacts. For conditions without an event at the Project site, the capacity utilization standard is 85 percent of maximum theoretical capacity of the transit screenline or line. For conditions with an event at the Project site, the capacity utilization standard is 100 percent of maximum theoretical capacity.

If the question to be answered by the transit impact analysis is whether the Project will inflict significant suffering on people riding Muni, why does the DSEIR use two different baselines for its impact assessment. If exceeding 85% inflicts suffering without an event, then exceeding 85% will inflict suffering with an event.

The DSEIR does not examine this use of inconsistent baselines. However, the June 21, 2013, Planning Department Memorandum "Transit Data for Transportation Impact Studies" (at Appendix-TR, p. TR-624) states:

The SFMTA Board has adopted an "85 percent" capacity utilization standard for transit vehicle loads. In other words, transit lines should operate at or below 85 percent capacity utilization. The SFMTA Board has determined that this threshold more accurately reflects actual operations and the likelihood of "pass-ups" (i.e., vehicles not stopping to pick up more passengers). The Planning Department, in preparing and reviewing transportation impact studies, has similarly utilized the 85 percent capacity utilization as a threshold of significance for determining peak period transit demand impacts to the SFMTA lines.

(DSEIR, Appendix-TR, p. TR-624.) Thus, the 85 percent capacity utilization threshold apparently has nothing to do with the suffering of Muni's passengers; it simply reflects the reality of Muni's operations. And even if 85% of capacity is the break point at which Muni drivers tend to refuse to pick up more passengers due to overcrowding, then using 100% of capacity as a threshold of significance is entirely unsupportable.

For its cumulative impact analysis, the DSEIR uses the same baselines and thresholds of significance discussed above plus one more if the Project "would contribute considerably to a screenline or corridor projected to operate at greater than the capacity utilization standard under 2040 cumulative plus project conditions (i.e., a contribution of 5 percent or more to the transit ridership on the screenline or route)."

The 5% threshold for determining a Project's contribution to be "considerable" is stated at Appendix-TR, p. TR-625. No rationale for this number is provided. This approach leads to illogical and unsupportable results. For example, a Project contributing 1% more capacity utilization to a screenline that usually operates at 84%, resulting in a total capacity utilization of 85%, would be deemed to contribute considerably to a significant impact, while a Project contributing 1% more capacity utilization to a screenline that usually operates at 94%, resulting in a total capacity utilization of 95%, would be deemed to not contribute considerably to a



significant impact, even though the latter scenario should be deemed a more significant change than the former. (See *Communities, supra*; *Kings County, supra*.) In short, a one-size-fits-all “ratio” violates CEQA.

**(b) The SEIR’s Cumulative Analysis Fails to Consider and Analyze the Project in the Context of the City’s Proposal to Remove the Northern Portion of I-280 as Far South as the Mariposa Street Interchange.**

This issue is discussed in July 23 Smith, at page 13 which is incorporated herein by reference.

**8. The SEIR’s Discussion of Transportation Impacts Is Incomplete.<sup>93</sup>**

**(a) The SEIR fails to disclose the significance or severity of transportation impacts when both a Giants game and a Warriors game occur without the Special Events Transit Service Plan.**

The SEIR analyzes transportation impacts in two broad scenarios: with and without implementation of the Special Events Transit Service Plan. But the DSEIR failed to provide a quantitative analysis of the significance or severity of the scenario in which both a Giants game and a Warriors game occur without the Special Events Transit Service Plan. The RTC admits this fact, but offers several justifications for this omission. (FSEIR, Vol 4, p. 13.11-9.)

The RTC’s argues that “it represents a worst-of-the-worst scenario, which would be expected to occur, on average, about nine times a year.” (FSEIR, Vol 4, p. 13.11-9.) This justification fails because the RTC also admits that this scenario’s additional impacts are on top of the significant impacts already identified in the “basketball game only - without Special Events Transit Service Plan” scenario. (FSEIR, Vol 4, p. 13.11-9.) The fact that the impact is significant is only part of the information required by CEQA. The other part is disclosing how severe the significant impact is. (*Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.) The SEIR fails in this regard.

As a result, the public was deprived of information essential to meaningful public participation. (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392 [“An EIR is an ‘environmental ‘alarm bell’ whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.’ [citations] The EIR is also intended ‘to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action’”].)

Moreover, without information regarding the extent of the Project’s significant

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<sup>93</sup>July 27 Lippe, p. 18; Nov 2 Smith FSEIR p. 1-3.



environmental harm, the OCCI and the City cannot weigh whether the Project's benefits outweigh that harm, which is the final step in the CEQA process where, as here, the impact remains significant after mitigation.<sup>94</sup>

The RTC also argues that the "Giants and Warriors game without Special Events Transit Service Plan" scenario is "unlikely" because there is a planned funding mechanism (i.e., the Transportation Improvement Fund Ordinance currently pending before this Board) for the Transit Service Plan. (FSEIR, Vol 4, p. 13.11-9.) This justification fails for two reasons.

First, said funding is not assured, even if the Board adopts the Transportation Improvement Fund Ordinance ("Fund Ordinance"). Since the Fund Ordinance is not a Charter amendment, every future appropriation is subject to discretionary approval by future Boards of Supervisors. (*McMahan v. City and County of San Francisco* (2005) 127 Cal.App.4th 1368.) Setting this deficiency aside, SFMTA has acknowledged that the Budget and Finance Committee purported to make the Warriors responsible for any future budget shortfalls to the Fund Ordinance, yet all that the Warriors are actually required to do in this instance is engage in other transportation-related mitigation measures, much of it deferred, that is unrelated to the specific transportation mitigation measures specified by the MTA and funded by the Fund Ordinance. (See Exhibit 10, November 6, 2015, Budget and Legislative Analyst Report to the Budget and Finance Committee ("Nov 6 Budget Analyst Report"), p. 10 ["the Warriors will be responsible to provide additional transportation services to comply with EIR Mitigation Measures TR-2b and TR-18".]) Thus, funding for critical transportation mitigation is in no way assured.

Second, Under CEQA, an impact cannot be both significant and unlikely to occur. The likelihood of an impact occurring is a factor considered in the threshold determination of whether an impact is "reasonably foreseeable" and thus must be analyzed in an EIR/SED. (See CEQA Guidelines, § 15064, subd. (d).) The likelihood of an impact occurring is also a factor in the discussion of cumulative impacts. (See CEQA Guidelines, § 15030, subd. (b) [cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence].) Here, the SEIR determined that the "Warriors game without Special Events Transit Service Plan" scenario is likely enough to occur to identify the scenario as having significant impacts. Having done so, the agency cannot discharge its obligation to disclose the increased severity of impacts in the "Giants and Warriors game without Special Events Transit Service Plan" scenario by characterizing the "without Special Events Transit Service Plan" portion of the scenario as unlikely to occur.

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<sup>94</sup>See OCII Resolution No. 70-2015, pp. 43-45, ¶'s 7-10 [Impact TR-18: Effect of Project on Traffic Without Muni Special Event Transit Service Plan (DSEIR p. 5.2-191, RTC, Response TR-2); Impact TR-19: Effect of Project Traffic on Freeway Ramps Without Muni Special Event Transit Service Plan (DSEIR p. 5.2-197); Impact TR-20: Effect of Project Transit Demand Without Muni Special Event Transit Service Plan (DSEIR p. 5.2-199; RTC, Response TR-2; Response TR-5); Impact TR-21: Effect of Project Regional Transit Demand Without Muni Special Event Transit Service Plan (DSEIR p. 5.2-202, RTC, Response TR-2)].



**(b) The SEIR fails to disclose traffic delays the Project's office and retail operations will cause on days with Giants games but without Project-related events.**

Figure 1 above also illustrates the SEIR's failure to disclose traffic delays the Project's office and retail operations will cause on days with Giants games but without Project-related events (i.e., convention, basketball game, or concert). And, using the delay numbers in the transportation appendix creatively reveals that such impacts are significant, at least for certain locations and time periods.

For example, in the PM peak period at the 7th/Mississippi and 16th St intersection, DSEIR page TR-179 shows "existing without Giants game" delay is 68.6 seconds; while page TR-275 shows "existing plus project without Giants game" delay is 87.8 seconds. This is an increment of 19.2 seconds of delay represents the contribution of traffic to the intersection from the Project's office and retail operations only, and is more than enough to tip this intersection from LOS E to F, which is a significant change.

Page TR-191 shows "existing with Giants game" delay is 84.7 seconds. The SEIR does not disclose, either in the body of the EIR or in its Appendices, the delay for "existing plus project with Giants game but without a Project-related event." To approximate this number, one can add the 19.2 second increment derived above (i.e., the contribution of traffic to the intersection from the Project's office and retail operations only) to 84.7 seconds. The result is 103.9 second of delay, a significant increase in the severity of existing significant delay.

According to the 2016 Giants schedule, the team will play 44 weekday evening regular season games plus 2 weekday evening preseason games (against the A's which are normally sold out) between the beginning of April to the end of September. If the team went all the way to the World Series and each of the playoff series went the maximum number of games, the team could play a maximum of about 11 weekday evening games in October. That totals 46 to 57 weekday evening games in a 7 month period. The use of the Warriors proposed event center is more difficult to assess. According to the information contained on DSEIR Volume 3, Appendix TR, page TR-19, Table 2, the proposed Warriors event facility could host a maximum of about 59 weekday events over the same beginning of April through end of October period (mix of Warriors regular season and playoff games, concerts, family-oriented shows, other sporting and convention/corporate events at average occurrences described in the referenced table). In that 7-month period, there are 156 weekdays. So there could be as many as 57 days per year where there is a weekday evening Giants game and no Warriors event center event, i.e., the undisclosed scenario described above. Also, the above example is just one of 22 intersections in the study area and at least 25 intersections outside the study area that will be affected to an unknown degree.



**9. The SEIR Impermissibly Characterizes Mitigation Measures for the Project's Transportation Impacts as Components of the Project.<sup>95</sup>**

**(a) The SEIR fails to consider other measures to reduce transportation impacts.**

The SEIR buries measures to reduce the Project's significant transportation impacts in the "project description" instead of identifying them as mitigation measures. These measures include both one-time capital improvements and ongoing expenditures as set forth in the Transportation Management Plan ("TMP") and Transit Service Plan ("TSP"). This conflation of design features and mitigation measures violates CEQA because it insulates the measures from the analysis applicable to mitigation measures, i.e., are they feasible and effective. (See, *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 657 [the EIR "fail[s] to consider whether other possible mitigation measures would be more effective"].) For example, as discussed in section C.8.(a) above, the SEIR fails to provide assess the significance or severity of the scenario in which both a Giants game and a Warriors game occur without the Special Events Transit Service Plan. As a result, potentially significant transportation impacts are completely unanalyzed, and unmitigated.

**(b) The SEIR fails to identify enforceable mitigation.**

The SEIR's conflation of design features and mitigation measures undermines the Mitigation Monitoring and Reporting Plan ("MMRP") because the TMP and TSP are not identified as enforceable mitigation measures, but rather "summarized" in a segregated "Section D" that is not adopted by the City as part of its findings for the Project or certification of the FSEIR. (Even if they are adopted as mitigation measures, however, the operational components of the TMP and TSP are unenforceable. (See July 23 Smith, at FSEIR, Vol. 4, pp. Com-135 - 139.)

Also, the SFMTA concedes that the TMP and TSP are unenforceable because necessary funding is not guaranteed, stating in relevant part:

The SFMTA cannot unequivocally guarantee future funding for the TSP at the levels analyzed in the Project Description in perpetuity; nevertheless, I am confident the SFMTA will be able to deliver the proposed service for the following reasons: ...

The SFMTA supports the Project with the understanding that the City, the Golden State Warriors, and SFMTA do not expect the SFMTA operating and capital budgets to experience any adverse impact associated with implementing the proposed Transit Service Plan and the capital investments to support it. SFMTA is further encouraged by the proposed ordinance that will establish The Mission Bay

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<sup>95</sup>Nov 3 Soluri Meserve to SFMTA, pp. 1-3; July 26 Smith at FSEIR, Vol. 6, pp. Com-135-139; July 27 Lippe at FSEIR, p. Com-126.



Transportation Improvement Fund and Designated Overlapping Event Reserve, funds from which would be appropriated by the Board of Supervisors as needed.

(MTA staff report dated November 3, 2015, enclosure 3.)

This error also obscures the City's massive public subsidy for the Project. A fundamental principle of CEQA is that development projects should mitigate their impacts to the extent feasible. (See, e.g., Pub. Resources Code, § 21002; see also CEQA Guidelines, § 15126.4.) With respect to the Project's transportation impacts, however, the City purports to adopt a "fair share" fee program to mitigate Project-level impacts. (*Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173 ("Anderson First").) As a threshold matter, the SEIR never clearly discloses to the public that it relies upon purported "fair share" payments to fund transportation improvement to reduce the Project's significant transportation impacts. This renders the SEIR defective as an informational document because the omitted information is required to assess the feasibility of the TMP and TSP.

In addition, the purported "fair share" is not fully enforceable, and therefore, cannot be considered part of an "effective" mitigation plan. The payment of impact fees may constitute adequate mitigation if "part of a reasonable plan of actual mitigation that the relevant agency commits itself to implementing." (Id.) The *Anderson First* decision identified the information that is required in an EIR to establish the adequacy of a "fair share" mitigation measure, which includes the following: (i) identification of the required improvement; (ii) estimate of the cost of the required improvement; (iii) sufficient information to determine how much the project would pay towards the improvement; and (iv) the fees must be part of a reasonable, enforceable plan or program sufficiently tied to the actual mitigation of the impacts at issue. (*Anderson First, supra*, 130 Cal.App.4th at 1189-90.) The SEIR fails to provide this necessary information.

While the SEIR mentions the TMP and TSP as reducing the Project's transportation impacts, the SEIR fails to identify the total costs of the improvements, the Project's allocated contribution, and the reasonable and enforceable program to pay for the Project's impacts. Although withheld from the Project's CEQA documentation, important information bearing on these questions is contained in the November 6 Budget Analyst Report (Exhibit 10), released after certification of the SEIR. The November 6 Budget Analyst Report makes the following "Key Points:"

- The proposed ordinance establishes the Mission Bay Transportation Improvement Fund (Fund) as a category four fund, setting aside General Fund monies to pay for services provided by SFMTA, SFPD, and DPW to the Warriors Project. It is anticipated that the revenues to be realized from the Warriors Project will provide for the needed funding sources to the General Fund.

**Fiscal Impact**

- SFMTA's estimated costs to purchase four new light rail vehicles and make other transportation system improvements to accommodate the Warriors Project



are \$55.3 million. Estimated revenues generated by the Warriors Project to pay these costs are \$25.4 million, resulting in a revenue shortfall of \$29.9 million. The estimated revenue shortfall of \$29.9 million will be financed through sale of SFMTA revenue bonds or other financing source. Annual debt service is projected to be paid from tax revenues generated by the Warriors Project.

- SFMTA's expenditures for transportation services to the Warriors Project will be paid by SFMTA fare and parking revenues generated by these services. The Mission Bay Transportation Improvement Fund will pay for SFMTA service to the Warriors Project not covered by these fare and parking revenues, and for SFPD and DPW services to the Warriors Project.
- City departments' estimated annual expenditures to provide services to the Warriors Project are \$10.1 million. These expenditures will be funded by an estimated \$11.6 million in revenues generated by the Warriors Project, resulting in net revenues of \$1.5 million.

#### **Policy Consideration**

- If the Warriors Project generates insufficient General Fund tax revenues to pay for all of SFMTA's costs to provide transportation services to the Warriors Project, the Warriors will need to directly provide some transportation services.
- Only General Fund tax revenues directly generated by the Warriors Project should be included in the Controller's estimates of Project revenues to the City.

#### **Recommendations**

- Amend the proposed ordinance to specify that if the annual cap of 90 percent of General Fund revenues from the Project site and events at the Event Center is insufficient to cover SFMTA's expenditures for transportation services to the Warriors Project, then the Warriors will be responsible to provide the additional transportation services to comply with EIR Mitigation Measures TR.2b and TR.18.
- Amend the proposed ordinance to specify that only tax revenues generated on-site by the Warriors Project are included in the Controller's estimates of General Fund revenue generated by the Warriors Project for the purpose of calculating the annual General Fund contribution to the Mission Bay Transportation Improvement Fund.

(November 6 Budget Analyst Report, pp. 1-2.)

Thus, documents prepared outside the CEQA process concede the project applicant is not being asked to bear the full cost of its own project-level mitigation. Moreover, the SEIR and the November 6 Budget Analyst Report fail to disclose that the "estimated revenues generated by the Warriors Project to pay these costs" are not payments directly by the project applicant, but rather the re-direction of sales and other taxes generally attributable to Project operations that would otherwise flow to the City's General Fund for other citywide services or transportation improvements. This information was hidden in the Event Center Expenditure Plan, which the SFMTA approved on November 3, 2015 ("Expenditure Plan"). (See Enclosure 3 to SFMTA



staff report dated November 3, 2015.)

In other words, rather than simply require the project applicant to be financially responsible for the capital improvements needed to mitigate its project-level impacts, the City is establishing a fee program that does not even require the applicant to pay the cost of the needed improvements. Instead the City is voluntarily giving up tax generated General Fund revenues that would otherwise support other City programs and services. By cloaking this deficient mitigation strategy as a design feature of the Project, the City never engages in a meaningful analysis of potentially feasible mitigation measures involving the project applicant actually mitigating these project-level impacts. Therefore, the first three categories of information required by *Anderson First* are completely missing from the Project's CEQA documentation.

The fourth category of information required by *Anderson First*, namely information about a reasonable and enforceable plan, is lacking altogether because there simply is no enforceable plan to cover the funding gap for project-level mitigation. The November 6 Budget Analyst Report speculates that the acknowledged \$29.9 million funding gap can be "financed through sale of SFMTA revenue bonds or other financing source." (November 6 Budget Analyst Report, p. 1.) Incredibly, as of three days after FSEIR certification, there was no plan at all, much less an enforceable plan, about how to fund the shortfall and ensure the necessary project-level mitigation gets implemented.

In an attempt to address the lack of an actual plan, the November 6 Budget Analyst Report states, "Annual debt service is projected to be paid from tax revenues generated by the Warriors Project." (November 6 Budget Analyst Report, p.1.) This speculation, however, fails for at least three reasons. First, the available information calls into question whether such tax revenues will be adequate to actually cover the annual debt service. The November 6 Budget Analyst Report estimates annual costs for project-level transportation mitigation at \$10.1 million and total Project tax revenues at 11.6 million that could be redirected to pay for these costs. As explained by economist Jon Haveman, however, these revenue estimates are far from conservative.<sup>96</sup> In fact, should attendance fail to materialize as predicted, revenues may not be adequate to cover the estimate annual payments on the speculative finance mechanism for the \$29.9 million infrastructure costs.

Second, implicitly acknowledging the speculative nature of the Project's revenue and expense projections, the November 6 Budget Analyst Report claims that the project applicant should be required to make up any annual shortfall based on the Mission Bay Transportation Improvement Fund ("Fund"). However, it is not at all clear that the referenced provision of the Fund ordinance requiring the project applicant to cover any deficiencies in annual expenses also applies to the cost associated with debt service on the outstanding \$29.9 million in addition to the

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<sup>96</sup>"Warriors Stadium Economics: Uncertainty and Alternatives, version 2.0," prepared by Jon Haveman, Ph.D. of Marin Economic Consulting, dated November 29, 2015, is attached to the November 30, 2015 "Appeal Brief" submitted by Soluri Meserve as Exhibit 4.



ongoing annual operational expenses. Further, the revision to the Fund ordinance recommended by the Budget Analyst requiring the Warriors to “directly provide some transportation services” in the event of a General Fund shortfall does not actually require the Warriors to make up the financial deficiency, but rather to engage in other, unrelated transportation mitigation measures set forth in M-TR-2b and M-TR-18. (November 6 Budget Analyst Report , p. 10.) The Legislative Analyst’s proposal therefore provides no greater certainty that the mitigation measures identified in the TMP, and funded by the Fund ordinance, will actually be implemented.

Third, since the vast majority of the project applicant’s financial contributions to transportation mitigation going forward is not based on a payments to a dedicated impact fee program but rather the City’s voluntary redirection of General Fund revenues, a Charter amendment would be required to actually bind future Boards (*McMahan v. City and County of San Francisco* (2005) 127 Cal.App.4th 1368) and thereby establish an enforceable program as contemplated in *Anderson First* and its progeny.

**10. The SEIR’s Identification of Numerous Mitigation Measures is Unlawful for Several Reasons, Including Deferral of Development and Lack of Evidence of Unavoidability.<sup>97</sup>**

One of the main purposes of an EIR is to identify ways to mitigate or avoid potentially significant impacts. Pub. Res. Code §§ 21002.1(a), 21061. CEQA therefore requires that the lead agency propose and describe mitigation measures aimed at minimizing any significant impact identified in an EIR. Pub. Res. Code §§ 21002.1(a), 21100(b)(3); 14 Cal. Code Regs. §§ 15121(a), 15126.4.

The SEIR takes the position that the City and the project proponent can devise specific mitigation measures later, well after the public has had its opportunity to review the SEIR and comment on the efficacy of mitigation measures. Mitigation Measure TR-2b states that:

The project sponsor *shall work with the City to pursue and implement, if feasible, additional strategies* to reduce transportation impacts. In addition, the City shall pursue and implement, if feasible, additional strategies that could be implemented by the City or other public agency (e.g., Caltrans). These strategies could include the following... .

(DSEIR, p. 5.2-129 (emphasis added). The strategies compound the problem by including measures that include equivocal language such as “explore,” “work to identify off-site parking lot(s)” (which should have been done as part of the preparation of the SEIR), “work to include,” “seek partnerships,” “meet to discuss,” and “encourage.” (DSEIR, p. 5.2-129 to 130). The above referenced language does not commit the City or the project sponsor to any course of action to

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<sup>97</sup>July 27 Lippe, p. 16; July 23 Smith, pp. 17-25.



mitigate the identified environmental impacts. Mitigations that are “not guaranteed to occur at any particular time or in any particular manner” are inadequate. *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 281; *see also, Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1260 (remote and speculative mitigations were inadequate); *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1119 (mitigation measure rejected because it identified general goal for mitigation rather than a specific performance standard).

Mitigation TR-9d makes the same mistake regarding a serious safety issue at the UCSF helipad. In this instance, the City simply defers the development of a lighting plan that fails to include specific measures. It only requires consultation with SFO staff concerning the effects of lighting on pilots and consultations and approvals regarding firework displays and laser light shows with advance notification to UCSF. Furthermore, the DSEIR calls for the development of “specialized lighting guidelines.” (DSEIR, p. 5.2-272). Mitigation TR-9a has a similar flaw.

The FSEIR’s response to comments actually supports the Alliance’s point. The response cites CEQA Guideline § 15126.4(a)(1)(B) to support the notion that deferral is appropriate. While the response stretches the meaning of section 15126.4(a)(1)(B) and the cases interpreting it, these authorities stand for the proposition that deferral is permissible if there are specified performance standards and the mitigations can be accomplished in more than one way. Then the response to comments states that “performance criteria must be sufficiently definite to ensure that the potential impacts would be mitigated.” (SFEIR, p. 13.11-201.) That is the problem with TR-2b. There are no performance criteria at all, let alone sufficiently definite ones. The mitigation is simply a menu of options for the City and the project sponsor to consider at a later date.

Mitigation TR-11c suffers from the same infirmity because it merely requires “the project sponsor to *continue to work with the City* to pursue additional strategies to reduce impacts during overlapping events.” (DSEIR p. 13.11-174 (emphasis added)). In fact, TR-11c is even worse, because the SEIR admits there is no evidence the mitigation is feasible, stating:

However, due to the physical limitations of the City’s street grid, land may not be available for City purchase that would allow for the expansion of street width to accommodate additional travel lanes or other design techniques to achieve the standard of LOS D or better, and City policies disfavor expansion of roadway capacity in order to achieve the City’s Transit First and other goals that attempt to limit private vehicle use. Consequently, it cannot be determined what mitigation measures may be available for affected areas, and then whether the measures would be feasible given the physical constraints of the street network and the availability of funding to implement the measures. The City would implement those measures *that it deems feasible...*

(DSEIR, p. 13.11-175 (italics added).) Not only is the City deferring the formulation of the mitigation, it has not even made the pre-requisite determination of whether a mitigation is even



available or feasible. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727 [agreement that called for purchase of replacement groundwater was an inadequate mitigation measure because there was no indication that such water was even available]. A vague and unenforceable promise to simply examine matters later is not a mitigation at all.

Mitigation TR-11c adds even more wiggle room to allow the project sponsor to escape implementation. For additional strategies to reduce impacts, Mitigation TR-11c adds that “The project sponsor shall exercise *commercially reasonable efforts*” to “avoid scheduling non-Golden State Warriors events of 12,500 or more event center attendees that start within 60 minutes of the start (respectively) of events at AT&T Park,” and to “negotiate with the event promoter to stagger start times... .” It also requires that “the project sponsor shall: (1) make *commercially reasonable efforts* to negotiate with the Port of San Francisco” regarding parking “and (2) (if such negotiations are successful) provide free shuttles” from such parking. (DSEIR, p. 13.11-180 (italics added).) The determination whether efforts are “commercially reasonable” is within the discretion of the project sponsor, and therefore unenforceable and illusory.

Also, “commercially reasonable efforts” is not the correct standard for determining a mitigation’s feasibility. “What is required is evidence that the *additional* costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project” if the Sponsor is *required* to avoid scheduling non-Golden State Warriors events of 12,500 or more attendees within the start of events at AT&T Park. (*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 599 (emphasis added).)

TR-11c also states that:

in the event the off-site parking lots at 19th Street and the Western Pacific site are implemented, the SFMTA shall consult with Caltrans in assessing the feasibility of signalizing the intersection of Pennsylvania/I-280 southbound off-ramp. If determined feasible by the SFMTA and Caltrans, the SFMTA and Caltrans shall establish the level of traffic volumes that would trigger the need for a signal, and the project sponsor shall fund its fair share...

(DSEIR, p. 13.11-180 (italics added).) Again, the SEIR defers all the analysis concerning its feasibility.

Mitigation TR-13 states that to accommodate Muni transit demand during overlapping events at both AT&T Park and the proposed project, “the project sponsor shall work with the Ballpark/Mission Bay Transportation Coordinating Committee to coordinate with the SFMTA to provide additional shuttle buses between key Market Street locations and the project. Examples of the additional service include...” Again, there is no definite mitigation provided and the City is simply asking the project proponent to discuss the matter in the future. (DSEIR, p. 5.2-184).

A similar requirement is set forth in Mitigation TR-11b:



As a mitigation measure to optimize effectiveness of the transportation management strategies for day-to-day operations and events in the Mission Bay area, at AT&T Park, UCSF Mission Bay campus, and the proposed project, the project sponsor shall actively participate as a member of the Ballpark/Mission Bay Transportation Coordinating Committee in order to ***evaluate and plan*** for operations of all three facilities (i.e., AT&T Park, UCSF Mission Bay Campus, and the proposed event center)...

The Transportation Coordinating Committee ***shall consult on changes to and expansion of transit services, and for developing and implementing strategies within their purview that address transportation issues*** and conflicts as they arise.

(DSEIR, Vol 1, p. 5.2-179 (emphasis added)). This mitigation highlights the illegality of the City's approach. The Committee will "evaluate and plan" and shall "develop" strategies later. This is required to be considered as part of the environmental review process, not deferred to a later date, after project approval.

With respect to TR-5a, TR-5b and TR-14 (requiring the Project Sponsor to ask Caltrain, ferry operators, and BART, to provide additional service for Project events, the RTC simply states the impact is significant and unavoidable: "Therefore, the SEIR does not rely on these measures to find the corresponding impacts less than significant, but rather determines the impact would be significant and unavoidable without mitigation." (FSEIR, p. 13.11-200). In this scenario, the finding of "unavoidability" is defective because there is no evidence it is infeasible to require the Project Sponsor to execute a contract with some or all of these third-party transit service providers to provide additional service for Project events. (*City of Marina v. Board of Trustees of the California State University* (2006) 39 Cal.4th 341, 350, 355-356, 360-361.)

The SEIR states that:

In order to accommodate the additional transit demand to the South Bay during weekday and Saturday evening conditions, one additional train car (average capacity of 130 passengers per car) on at least one inbound train per hour would be needed. For the weekday late evening period, two additional train cars (average capacity of 130 passengers per car) on at least one outbound train per hour would be needed. Alternatively, the transit demand could be accommodated within one special outbound train (total capacity up to 650 passengers) at the end of the basketball game, similar to the service currently being offered to SF Giants home games (two special outbound trains).

In order to accommodate the additional transit demand to the North Bay, four additional Golden Gate Transit buses (40 passengers per bus) plus one ferry boat (250 to 350 passengers per boat) per hour, or alternatively seven additional buses per hour would need to be provided.



(DSEIR, p. 5.3-146).<sup>98</sup> While the SEIR clearly identifies the need, Mitigation TR-5 completely misses the mark. Instead of providing concrete requirements to address this lack of transit, the mitigation states as follows:

However, since the provision of additional South Bay and North Bay service is uncertain and full funding for the service has not yet been identified, implementation of both mitigation measures remain uncertain. Accordingly, the proposed project's significant impacts to Caltrain, Golden Gate Transit and WETA transit capacity would remain *significant and unavoidable with mitigation*.

(DSEIR, p. 5.3-146 to 147; *see also*, DSEIR 5.2-185). This approach has been condemned by the courts.

CEQA requires the agency to find, based on substantial evidence, that the mitigation measures are “required in, or incorporated into, the project”; or that the measures are the responsibility of another agency and have been, or can and should be, adopted by the other agency; or that mitigation is infeasible and overriding considerations outweigh the significant environmental effects. (§ 21081; Guidelines, § 15091, subd. (b).) In addition, the agency “shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures” ([Public Resources Code] § 21081.6, subd. (b)) and must adopt a monitoring program to ensure that the mitigation measures are implemented ([Public Resources Code] § 21081.6, subd. (a)). *The purpose of these requirements is to ensure that feasible mitigation measures will actually be implemented as a condition of development, and not merely adopted and then neglected or disregarded.* (See § 21002.1, subd. (b).) . . . .

The city acknowledged in the TIMP that there was great uncertainty as to whether the mitigation measures would ever be funded or implemented. Although the city adopted the mitigation measures, it did not require that they be implemented as a condition of the development allowed under the GPF and made no provision to ensure that they will actually be implemented or “fully enforceable” (§ 21081.6, subd. (b)). We therefore conclude that there is no substantial evidence in the record to support a finding that the mitigation measures have been “required in, or incorporated into” (§ 21081, subd. (a)(1)) the GPF in the manner contemplated by CEQA, and the city failed to provide that the mitigation measures would actually be implemented under the GPF (§ 21081.6, subd. (b)).

*Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th

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<sup>98</sup>The SEIR admits that these are “*new significant* impacts not previously identified in the Mission Bay FSEIR.” (DSEIR, p. 5.2-147).



1252, 1260–126 (italics in original, fn. omitted)<sup>99</sup>; see also, *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1188 (“To be adequate, these mitigation fees, in line with the principle discussed above, must be part of a reasonable plan of actual mitigation that the relevant agency commits itself to implementing.”)

Mitigation TR-5 suffers from the flaws identified in this line of cases. Again, the SEIR and lead agency uses the determination that the impact is significant and unavoidable as a justification for having an unenforceable mitigation, but the finding of “unavoidability” is defective because there is no evidence it is infeasible to require the Project Sponsor to execute a contract with third-party transit service providers to provide additional service for Project events. Further, the approving agencies have failed to fill this gap, because these Mitigations do not commit these agencies to implement these measures.

TR-5a also uses equivocal language and further states that “the project sponsor shall work with Caltrain to provide additional Caltrain service to and from San Francisco on weekdays and weekends. The need for additional service shall be based on surveys of event center attendees conducted as part of the TMP.” (DSEIR, p. 5.2-147). TR-5b contains nearly identical language providing that the project sponsor shall work with Golden Gate Transit regarding providing ferry and bus service. (DSEIR, p. 5.2-147). The problem with these mitigation measures are two-fold. First, the SEIR identifies the need for additional transit with specificity (e.g., two additional train cars), then the mitigation simply ignores the analysis and says the mitigation will be based on “surveys of event center attendees.” If the problem has been identified, a subsequent survey, without specified parameters or controls, cannot dictate the required transportation needs. And, the City may not cede responsibility for assessing an impact to a project proponent. *California Clean Energy Committee v. City of Woodland*, supra, 225 Cal.App.4th 173, 194. The public and decisionmakers are entitled to be informed of the transit need, as the SEIR has identified, and then mitigations must be developed to address that identified need. Second, while the impact has been identified, and the mitigation for the impact also identified (e.g., two additional train cars), the mitigation only requires the project sponsor to “work” on transportation issues, but does not require it to pay its fair share to fund the actual mitigation.

Caltrain, for its part, invited the City and the project sponsor to work with it to develop the appropriate mitigation, stating:

Caltrain agrees with the DSEIR’s analysis of capacity impacts to our service, the conclusion that additional service has the potential to mitigate a portion of these impacts, and the statement that additional Caltrain service has not yet been defined, funded or agreed to. Caltrain understands the importance of the regional

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<sup>99</sup> The court in *Federation of Hillside & Canyon Associations v. City of Los Angeles* used the substantial evidence test, but the Alliance believes based on subsequent construction of the standard of review by the courts, that the failure to require implementation of a mitigation measure is a failure to proceed in a manner required by law.



transportation services we provide and we look forward to working collaboratively with the City and County of San Francisco and the project sponsors to address the transportation challenges and opportunities presented by this unique project. As the project advances through the environmental process we encourage the City and the project sponsors to engage with us directly to more formally define, analyze and identify funding for any contemplated increase in Caltrain service.

(FSEIR, Vol. 6, p. COM-20 [Caltrain letter dated July 27, 2015].) The mitigation measure provides no assurance that the mitigation will happen and dismisses the mitigation by simply calling the impact significant and unavoidable when there is a potentially feasible mitigation present.

The SEIR makes the same mistake with respect to Mitigation TR-14 regarding impacts on BART during overlapping events at AT&T Park and the proposed project. The SEIR simply says “since the provision of additional East Bay, South Bay, and North Bay Service is uncertain and full funding for the service has not yet been identified, implementation of these mitigation measures remain uncertain.” The SEIR then states that

the project sponsor shall work with the Ballpark/Mission Bay Transportation Coordinating Committee to coordinate with BART to provide additional service from San Francisco following weekday and weekend evening events. The additional East Bay BART service could be provided by operating longer trains. The need for additional BART service shall be based on characteristics of the overlapping events... .

(DSEIR, p. 5.2-185).

The response to comments attempts to rehabilitate these fatal flaws in the SEIR by stating:

because some or all of the additional demand could be accommodate (sic) by other transit providers serving the East Bay, North Bay, and South Bay (e.g., BART also serves the South Bay and not projected to operate at more than 100 percent capacity utilization), the actual additional service needed to accommodate the demand may be less than identified in the SEIR. Thus, in order to provide additional transit most efficiently, the amount of additional service should be responsive to the actual travel patterns, as determined during monitoring of events.

(FSEIR, p. 13.11-193). There are several problems with this response. First, the SEIR attempts to have it both ways. On the one hand it provides analysis of the transportation need, then on the other it attempts to downplay the need by saying it may not reflect the situation accurately. This



argument either calls into question the SEIR's impacts analysis, or is an attempt to avoid mitigating the clearly significant impact. Second, it allows the project sponsor to determine the need for additional transportation at a later date. There are no parameters specified as to the conduct of the surveys, and no way to tell whether the surveys will be accurate. There is no indication as to whether the City will verify the accuracy of the surveys. Third, it still does not solve the problem of providing the funding for the mitigation. The response further states:

Neither the project sponsor nor the City has the legal authority and logistical ability to provide the additional service to and/or from the North Bay and South Bay, or to commit to funding of the additional service. However, the proposed TMP and Mitigation Measures require that the City and project sponsor to work with the regional transit agencies to provide additional service. Despite the lack of any guaranteed outcome, such efforts might well bear fruit, based on past experience. The provision of additional regional transit service during special events is common in San Francisco. As noted in the SEIR, additional service can include adding cars to scheduled trains, or provision of special event trains.

(FSEIR, p. 13.11-183). There are multiple problems with this response. First, the notion that the City can simply shed its responsibility to provide for mitigations because other agencies are responsible for implementation was rejected in *City of Marina v. Board of Trustees of the California State University, supra*, and *County of San Diego v. Grossmont-Cuyamaca Community College Dist.* (2006) 141 Cal.App.4th 86, 97–98. Second, as stated above, a promise to “work with regional transit agencies” is not a mitigation. Third, if the provision of additional service during special events is common in San Francisco, there should be no barriers to providing the necessary mitigations for these impacts.

CEQA requires the City to identify “both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects.” Pub. Res. Code § 21002; 14 Cal. Code Regs. § 15126.4(a)(1). Here, the SEIR identifies both the effects and the necessary solution. But, the SEIR does not mandate the solution as a mitigation. “Each public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so.” Pub. Res. Code § 21002.1(b). “The core of an [Environmental Impact Report (EIR)] is the mitigation and alternatives sections.” *Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1350. It is completely feasible to mitigate the significant effect by funding the fair share of the transit impact. Caltrain is willing to work with the City and the project sponsor to craft the mitigation. The City simply fails to require a feasible mitigation.

The CEQA Guidelines specifically recognize that requiring a project to implement or fund its “fair share” of a measure designed to mitigate a cumulative impact is an effective way to address the project's contribution to the impact. 14 Cal. Code Regs. § 15130(a)(3). Even where fees are required, the courts have required that fees translate into actual mitigations. “A commitment to pay fees without any evidence that mitigation will actually occur is inadequate.”



*Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 140. Here, the problem is worse. No mitigation fees are even required to be paid for an identified significant impact. CEQA requires that an EIR propose specific mitigations to reduce identified traffic impacts. *Federation of Hillside & Canyon Associations v. City of Los Angeles*, *supra*, 83 Cal.App.4th at 1261 (EIR invalid because mitigation measures were not “required in, or incorporated into” (§ 21081, subd. (a)(1)) the General Plan Framework (GPF) in the manner contemplated by CEQA, and the city failed to provide that the mitigation measures would actually be implemented under the GPF (§ 21081.6, subd. (b)).) For these reasons, mitigations for transit impacts are inadequate.

**(a) The SEIR Improperly Defers the Development of Mitigation Measures to Reduce the Project’s Construction-related Traffic Impacts to less than Significant.<sup>100</sup>**

With respect to cumulative construction impacts related to ground transportation (Impact C-TR-1), the SEIR asserts the impacts are less than significant. (FSEIR Vol. 4, p. 13.11-157; DSEIR vol. 1, p. 5.2-212.) The Alliance discusses this conclusion in section II. C. above.

Since the impact was improperly determined to be less than significant, mitigation is necessary to reduce the impact. However, Improvement Measure I-TR-1, which calls for the preparation of a Construction Management Plan and Public Updates, was improperly deferred. I-TR-1 merely calls for the project sponsor to require the contractor to:

prepare a Construction Management Plan for the project construction period. The preparation of a Construction Management Plan could be a requirement included in the construction bid package. Prior to finalizing the Plan, the project sponsor/construction contractor(s) shall meet with DPW, SFMTA, the Fire Department, Muni Operations and other City agencies to coordinate feasible measures to include in the Construction Management Plan to reduce traffic congestion, including temporary transit stop relocations and other measures to reduce potential traffic, bicycle, and transit disruption and pedestrian circulation effects during construction of the proposed project. This review should consider other ongoing construction in the project vicinity, such as construction of the nearby UCSF LRDP projects and construction on Blocks 26 and 27.

(DSEIR, p. 1-14). The mitigation has no performance standards or other specific requirements. It is simply at the discretion of the project sponsor and the contractor. Meeting and coordinating with City officials, without any specific requirements or performance standards, is an illusory mitigation at best. And, there is no basis in which the public can understand the efficacy of the measures. The Construction Management Plan “could” “encourage” carpools, transit, bicycles and walking for construction workers, identify parking for construction workers, and “could” provide construction updates to businesses and residents. (DSEIR, p. 5.2-116 to 117). There are

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<sup>100</sup>July 27 Lippe, pp. 5-7; July 23 Smith, p. 15; Nov 2 Smith FSEIR p. 22.



no specific mandates included in I-TR-1. The CEQA Guidelines require that “Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments. In the case of the adoption of a plan, policy, regulation, or other public project, mitigation measures can be incorporated into the plan, policy, regulation, or project design.” 14 Cal. Code Regs. 15126.4(a)(2). Nothing in I-TR-1 is enforceable, let alone fully enforceable, through conditions, agreements or other legally binding instruments. The measure cannot even be quantified since it relies on future contractors hired by the Project sponsor. Therefore, it is wholly inadequate as a mitigation measure.

#### **11. The SEIR’s Transit and Traffic Analyses Understate Impacts Because They Rely on Outdated Baseline Data.<sup>101</sup>**

The Alliance commented that the SEIR’s transit and traffic analyses understate impacts because they rely on outdated baseline data. “In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced.” (*Save Our Peninsula Committee v. Monterey County Bd. Of Supervisors* (2001) 87 Cal.App.4th 99, 123, citing CEQA Guideline § 15126.2; see also, *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 953; CEQA Guideline § 15125(a). )

However, the case law also recognizes that factors after the issuance of the NOP may influence the selection of the correct baseline. “Environmental conditions may vary from year to year and in some cases it is necessary to consider conditions over a range of time periods.” *Save Our Peninsula Committee v. Monterey County Bd. Of Supervisors* (2001) 87 Cal.App.4th at 125. Speaking specifically to traffic, the Court stated: “Since the environmental review process can take a number of years, *traffic levels as of the time the project is approved may be a more accurate representation of the existing baseline against which to measure the impact of the project.* (See, e.g. *Fairview Neighbors v. County of Ventura* (1999) 70 Cal.App.4th 238 [maximum estimated traffic was appropriate baseline].)” *Ibid.* at 126 (emphasis added).

The RTC contends the transit and traffic data used were up-to-date and adjusted to account for recent developments and growth. This is incorrect, both factually and legally. As shown by traffic engineer Smith, the SEIR does not present baseline data current to either the issuance of the NOP, or a later time that would account for the continued phenomenal growth in Mission Bay and the surrounding environs. Instead, the City relies on stale data that meets neither legal test and results in an underestimate of the environmental transit and traffic impacts. (Nov 2 Smith FSEIR, p. 9-13.)

Smith shows the transit data is from 2010 and 2011, well before the NOP was issued. Smith notes that when the NOP was issued, large number of development projects were

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<sup>101</sup>July 23 Smith, p. 9; Nov 2 Smith FSEIR pp. 9-13.



completed and occupied and the recovering economy increased ridership considerably. The City claims it took steps to ensure that the data was up-to-date, but Smith provides detailed analysis of why the City actually did not update the analysis, and that some of the data being represented as updated is actually old data from 2012 and 2013. It is certainly not up-to-date and is not representative of existing conditions at the time the NOP was issued in November of 2014, nor takes into account additional development since then. As Smith notes, BART's comment on the DSEIR states that "Given strong job expansion in San Francisco, BART has experienced unprecedented ridership growth (~25% over the last four years) which creates a number of peak period capacity challenges." (Nov 2 Smith FSEIR, p. 10 [FSEIR Vol. 4, p. COM-19].)

Smith also shows the traffic data fails to include traffic volumes associated with developments in northern Mission Bay, SOMA and the C-3 that were completed after 2013 or were nearing completion by 2015. (Nov 2 Smith FSEIR, p. 9-13.)

**12. The SEIR Fails to Consider the Disruptive Impacts of the At-grade Rail Crossing on LOS at 7th/ Mississippi and 16th Street.**

This issue is discussed in July 23 Smith at page 14; the FSEIR's responses to comments at Vol. 4, pp. 13.11-55, 56; Nov 2 Smith FSEIR, at page 18, and Nov 28 Smith FSEIR (Exhibit 12 hereto) at pages 4-7, all of which are incorporated herein by reference.

**13. The SEIR concludes, without adequate foundation, that the project would not have an adverse impact on emergency access to UCSF hospitals.**

This issue is discussed in July 23 Smith at page 16; Nov 2 Smith FSEIR at page 22; Nov 10 Smith FSEIR Access; and Nov 28 Smith FSEIR (Exhibit 12 hereto) at page 2, all of which are incorporated herein by reference.

**14. The New Project Variant disclosed in the FSEIR requires recirculation due to new and more severe significant impacts.<sup>102</sup>**

The new project variant will dig up King Street for six months and Third Street for fourteen months. (FSEIR, pp. 12-11, 12-25.) This will exacerbate construction phase impacts on traffic, creating new significant impacts not previously identified in the SEIR.

This issue is discussed in Nov 13 Smith FSEIR King St., and Nov 17 Smith FSEIR 3rd St., all of which are incorporated herein by reference.

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<sup>102</sup>Nov 13 Smith FSEIR King St., Nov 17 Smith FSEIR 3rd St.



**D. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO HYDROLOGY, WATER QUALITY, AND BIOLOGICAL IMPACTS.**

**1. The DSEIR Is Not Sufficient as an Informational Document with Respect to the Project's Wastewater Treatment Infrastructure Impacts (Comment UTIL-3).<sup>103</sup>**

The DSEIR concedes the Project's cumulative wastewater flow, in combination with other approved projects, will exceed the Mariposa Pump Station's capacity, and therefore, the Project will have a significant and unavoidable impact because it "would require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects." (DSEIR, p. 5.7-13 - 5.7-20 [Impact C-UT-2].) But the DSEIR's disclosure of the nature and severity of the potentially significant impacts of building these new wastewater treatment facilities falls far short of CEQA's requirements.

The DSEIR generally describes the type of new wastewater treatment facilities that might be built. (DSEIR, p. 5.7-14.) The DSEIR then identifies a number of potentially significant impacts of constructing new wastewater treatment facilities necessitated by the Project, stating:

These construction activities would be expected to result in temporary increases in truck and construction employee traffic, noise, and air pollutant and greenhouse gas emissions. In addition, depending on the site-specific design and location, the pump station improvements could result in physical effects on cultural resources, biological resources, water quality, and hazardous materials.

(DSEIR, p. 5.7-14.) The DSEIR then vaguely suggests that these impacts could be mitigated to less than significant levels by adopting "typical" mitigation measures, stating:

Most, if not all, of these potential impacts can generally be mitigated to a less-than-significant level with typical mitigation measures, similar to those identified in the Initial Study and the SEIR for this project. Long-term operational impacts would likely be less than significant because operation of the pump stations would be similar to existing operations of these facilities.

(DSEIR, p. 5.7-14.)

These vague descriptions fail to discharge the City's legal obligations under CEQA to fully describe the Project, including its "reasonably foreseeable consequence" of necessitating the construction of additional wastewater treatment facilities, and to include an "analysis of the

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<sup>103</sup>July 26 Lippe, pp. 1-10; July 19 Gilbert, pp. 2-3; Nov 2 Lippe FSEIR, pp. 8-12, Nov 2 BSK; Nov 2 Ringelberg..



environmental effects” of this future action and the mitigation measures that may reduce those impacts. (See e.g., *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 396 (*Laurel Heights I*) [“an EIR must include a analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects].)

As shown in both the DSEIR’s analysis of mitigation measures and the Mission Bay Alliance’s comments on many types of impacts that construction of additional wastewater treatment facilities will cause (e.g., air quality, noise, traffic), the “mitigation measures ... identified in the Initial Study and the SEIR for this project” do not ensure that “impacts can generally be mitigated to a less-than-significant level.”

Finally, the DSEIR states:

In the event that additional future wastewater flows would exceed the pump station capacities before the needed wastewater system improvements could be completed, it is assumed that the SFPUC would make internal operational or piping changes to accommodate the additional flows in the interim in order to remain in compliance with RWQCB permit requirements. The interim system modifications would be subject to the approval of the RWQCB under the terms of the Bayside NPDES permit. Approval by the RWQCB would ensure that water quality of the Bay would be protected during the interim period. Any interim system modifications are assumed to be operational or internal to the existing pump stations and therefore would not result in any physical environmental effects.

This remarkable passage suggests that the City is prepared to approve and allow construction of this Project without ensuring the construction of additional, adequate, sewage treatment capacity required by the Project. This is the opposite of responsible planning. Moreover, the City is apparently poised to take this action based on several unsupported assumptions. First, the DSEIR assumes, without discussion or evidentiary support, that interim modifications will not have a significant effect on the environment.

Second, the DSEIR assumes the Project’s wastewater impacts on the Bay will only be “interim” until the SFPUC builds or expands permanent new wastewater treatment facilities; and that in this supposedly “interim” period, the Regional Water Quality Control Board will mitigate any “interim” impacts to less than significant. But there is no evidence to support the assumption the Project’s wastewater can be treated to avoid significant adverse effects on Bay water quality before the SFPUC builds or expands permanent wastewater treatment facilities. Nor is there evidence that Regional Water Quality Control Board regulation during any purported “interim” period would avoid significant adverse effects on Bay water quality. Nor is there any evidence as to how long this purportedly “interim” period will last, or how many other projects that will



cumulatively exceed the Mariposa Pump Station’s capacity will commence operations during this purportedly “interim” period.

Indeed, this DSEIR’s approach represents a total abdication of the City’s legal responsibility under CEQA to identify the Project’s significant effects, to identify mitigation measures that would substantially reduce those effects, and to adopt all feasible mitigation measures that would substantially reduce those effects. To put it colloquially, punting the problem to the SFPUC or Regional Water Quality Control Board does not pass muster under CEQA.

**(a) The Response to Comment UTIL-3 is Inadequate.<sup>104</sup>**

The RTC for Comment UTIL-3 essentially says that the Project is “first come, first served” for purposes of using up remaining sewer system capacity in the Mariposa sub-basin. (FSEIR, Vol. 5, pp. 13.17-11.) But the assertion that the cumulative future projects listed in the referenced report by Hydroconsult Engineers (i.e., Blocks 25b, 33-34, 40 and Hospital Phase 2),<sup>105</sup> will be operational further in the future than the Project is unsupported. In fact, these cumulative future projects are not even listed in the cumulative future projects list at DSEIR, pages 5.1-8 - 10. As a result, the SEIR’s assertions are unsupported and untestable.

The response’s assertion that “Future improvements in the SFPUC’s wastewater system are beyond the project sponsor’s control” is also unsupported; in fact, it is contradicted by overwhelming evidence. Where it is advantageous to the project, the SEIR assumes the City will do things over which the project sponsor has no control to support the project, e.g., comply with its NPDES permit, provide transportation infrastructure to handle the crowds, etc. Indeed, the City is named as a responsible party or is directly involved in dozens of mitigation measures identified in the proposed Mitigation Monitoring and Reporting Program.<sup>106</sup> But here, the SEIR takes an inconsistent position, disclaiming any Project Sponsor control over a different matter within the City’s control, i.e., expansion of the sewer system, apparently for no reason other than it is advantageous to the project to do so.<sup>107</sup>

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<sup>104</sup>July 26 Lippe, pp. 1-10; July 19 Gilbert, pp. 2-3; Nov 2 Lippe FSEIR, pp. 8-12, Nov 2 BSK; Nov 2 Ringelberg..

<sup>105</sup>Hydroconsult Engineers, Inc. 2015. Combined Sewer Impact Analysis, Golden State Warriors Arena EIR. February 25, referenced on RTC, p. 13.17-15, n 8.

<sup>106</sup>One example is Mitigation Measure M-TR-2b: Additional Strategies to Reduce Transportation Impacts: “The project sponsor shall work with the City to pursue and implement commercially reasonable, if feasible, additional strategies (i.e., in addition to those included in the project TMP) to reduce transportation impacts. In addition, the City shall pursue and implement, if feasible, additional strategies to that could be implemented by the City or other public agency (e.g., Caltrans).”

<sup>107</sup>The San Francisco Public Utilities Commission is a department of the City and County of San Francisco.



**2. The DSEIR Is Not Sufficient as an Informational Document with Respect to the Project's Contaminated Wastewater (I.e. Combined Sewage and Stormwater) Impacts on San Francisco Bay Water Quality or Biological Resources (Including from Inadequately Treated Sewage and Toxic Chemicals (E.g., Pcb's and Metals) (Comments Hyd-3 - Hyd-6).<sup>108</sup>**

In the chapter on the Project's Water Quality impacts, the DSEIR evaluates the impact of Combined Sewage Discharges (CSDs or CSOs) to the Bay that exceed treatment capacity of the Mariposa Pump Station due to the combination of increased storm water flows combined with sewage wastewater flows. The DSEIR uses two thresholds of significance based on the City's NPDES permit, stating:

- Wet weather flows to combined sewer system: The impact analysis examines whether project related increases in wastewater flows would contribute to combined sewer discharges during wet weather. The impact is considered less than significant if the increased flows would not increase the frequency of combined sewer discharges above the long-term average specified in the NPDES permit for the SEWPCP, the North Point Wet Weather Facility, and Bayside wet-weather facilities.
- Effluent discharges from SEWPCP: For the analysis of impacts related to changes in the quality of effluent discharges from the SEWPCP, the analysis considers whether discharges of wastewater to the combined sewer system would cause effluent quality to exceed the discharge limitations of the NPDES permit for the SEWPCP. If not, the impact is considered less than significant.

(DSEIR, p. 5.9-30.)

Thus, for purposes of complying with CEQA's requirement that it identify the Project's significant impacts, the DSEIR makes two unsupported assumptions: (1) that City compliance with its NPDES permits will avoid significant impacts, and (2) that the City will in fact comply with its NPDES permits. The DSEIR must support these assumptions with evidence.

In addition, the first threshold quoted above only looks at "frequency of combined sewer discharges above the long-term average" and ignores increases in quantity and duration of overflows. (See DSEIR, pp. 5.9-34 to 5.9-36.) The DSEIR notes:

The model analyzed the effects of discharging the average flows from the proposed project in combination with the existing average flows in the drainage area. Under this scenario, the frequency of CSDs would not increase, but the

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<sup>108</sup>July 24 Lippe, pp. 4-10; Nov 2 Lippe FSEIR, pp. 10-12; July 21 Hageman; Nov 2 Hageman; Nov. 2 BSK; July 22 Cline, pp. 1-15.



volume of the CSDs would increase from 5.34 to 5.63 million gallons and the duration would increase from 17.2 to 17.3 hours.

(DSEIR, 5.9-35.) The DSEIR finds this impact less than significant because it defines “significance” solely in terms of the *number* of CSD events and compliance with the City’s NPDES permit, regardless of the *quantity* of sewage discharged, stating:

Because average and peak wastewater flows from the project site would not increase the frequency of CSD events from the Mariposa sub-basin and would be consistent with the requirements of the NPDES permit, project level water quality impacts related to contributions to an increase in CSD frequency would be *less than significant*.

(DSEIR, 5.9-35, 36.) The DSEIR makes the same finding for the Project’s cumulative impact based on the same evidence and the same rationale. (DSEIR, 5.9-35, 36.)

This is a legal error because the DSEIR cannot merely reference a project’s compliance with another agency’s regulations. Lead agencies must conduct their own fact-based analysis of project impacts, regardless of whether the project complies with other regulatory standards.<sup>109</sup>

The 1998 Mission Bay FSEIR sets the stage for this legal error in its finding that CSO impacts on the Bay are less than significant, stating:

The same conclusions for the proposed project apply to the cumulative effects of Bayside projects, in that the cumulative increase in pollutant mass load from these projects would have a less-than-significant effect on water quality. As shown in Table V.K.8, the project would represent less than 3% of the increased total pollutant load from the Bayside. The cumulative loads for pollutants would

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<sup>109</sup> See, e.g., *Californians for Alternatives to Toxics v. Department of Food & Agriculture* (2005) 136 Cal.App.4th 1, 16 (lead agencies must review the site-specific impacts of pesticide applications under their jurisdiction, because “DPR’s [Department of Pesticide Regulation] registration does not and cannot account for specific uses of pesticides..., such as the specific chemicals used, their amounts and frequency of use, specific sensitive areas targeted for application, and the like”); *Citizens for Non-Toxic Pest Control v. Department of Food & Agriculture* (1986) 187 Cal.App.3d 1575, 1587-1588 (state agency applying pesticides cannot rely on pesticide registration status to avoid further environmental review under CEQA); *Oro Fino Gold Mining Corporation v. County of El Dorado* (1990) 225 Cal.App.3d 872, 881-882 (rejects contention that project noise level would be insignificant simply by being consistent with general plan standards for the zone in question). See also *City of Antioch v. City Council of the City of Pittsburg* (1986) 187 Cal.App.3d 1325, 1331-1332 (EIR required for construction of road and sewer lines even though these were shown on city’s general plan); *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 712-718 (agency erred by “wrongly assum[ing] that, simply because the smokestack emissions would comply with applicable regulations from other agencies regulating air quality, the overall project would not cause significant effects to air quality.”).



generally increase by 4-6%. Thus, the project would cause approximately half of this cumulative increase for the Bayside. To put this in context, City discharges are a very small portion of the region-wide discharges to the Bay. Compared to municipal dischargers in the Bay Area, the load contribution of the Southeast Plant represents about 12% of all other municipal dischargers, and the Mission Bay project would represent less than 3% of that 12% (or 0.36% of all municipal wastewater discharged to the Bay). In addition, besides municipal wastewater, other sources of pollutant loading to San Francisco Bay include riverine inputs, nonurban runoff, urban runoff, point sources, dredging/sediment disposal, spills, and atmospheric deposition. Of these sources, point sources, including municipal dischargers and other permitted industrial dischargers, represent about 1-6% of the total load input to the Bay-Delta estuary. Regarding stormwater discharges, San Francisco Bayside stormwater flows are about 1.8% of the total regional urban storm flow to the Bay. Considering the contribution of the project and of the cumulative Bayside projects in the context of all the other pollutant inputs to the Bay, the cumulative pollutant loading from Bayside projects would be extremely small.

(1998 MB FSEIR, p. V.K.52.)

This logic reflects the “de minimis” and “ratio” rationales rejected in *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 120 (“CBE”) [“[T]he relevant question”... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether “any additional amount” of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant. [footnote omitted]”], and *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-21 [“They contend in assessing significance the EIR focuses upon the ratio between the project’s impacts and the overall problem, contrary to the intent of CEQA.... We find the analysis used in the EIR and urged by GWF avoids analyzing the severity of the problem and allows the approval of projects which, when taken in isolation, appear insignificant, but when viewed together, appear startling. Under GWF’s ‘ratio’ theory, the greater the overall problem, the less significance a project has in a cumulative impacts analysis. We conclude the standard for a cumulative impacts analysis is defined by the use of the term ‘collectively significant’ in Guidelines section 15355 and the analysis must assess the collective or combined effect of energy development”].) *Communities* and *Kings County* teach that the significance of a cumulative impact depends on the environmental setting in which it occurs, especially the severity of existing environmental harm.

Therefore, accepting the Hydroconsult numbers at face value, the starting point for



assessing whether adding 2.9 million gallons per year<sup>110</sup> of incompletely treated CSD pollution to the existing condition of San Francisco Bay is significant is the existing condition of San Francisco Bay.<sup>111</sup> The DSEIR says very little on the topic. The 1998 Mission Bay FSEIR provides some information, but the DSEIR does not discuss how much of the 1998 Mission Bay FSEIR's information may be outdated as a result of the passage of seventeen years, and is, therefore, unknown.

The 1998 Mission Bay FSEIR characterizes “municipal wastewater” as follows:

Municipal wastewater is a relatively strong waste stream containing high concentrations of organic matter that will decompose (measured as biochemical oxygen demand because the decomposition requires oxygen), inorganic particulates (measured as total suspended solids), nutrients (measured as total nitrogen and phosphorus), and pathogenic microorganisms. It also contains oil and grease and small quantities of toxic metals, pesticides, solvents, and plasticizers (additives in plastics that maintain softness and pliability). Conventional secondary treatment, as employed by San Francisco at its Southeast Water Pollution Control Plant, greatly reduces the concentrations of most substances in municipal wastewater. On the other hand, dissolved metals and organic substances that are resistant to breakdown by bacteria, may pass through the plant relatively unaltered. This waste stream, after treatment, is referred to as municipal wastewater effluent in this SEIR.

(1998 MB FSEIR, p. V.K.4.)

The 1998 Mission Bay FSEIR characterizes “urban stormwater ” as follows:

Urban stormwater is a large-volume wastewater stream. Pollutants contained in urban runoff include street litter, sediment (mostly inorganic particulates, measured as total suspended solids), oil and grease, oxygen-demanding substances, pathogenic microorganisms, toxic metals, and pesticides. The concentrations of oxygen-demanding substances, nutrients, and pathogenic microorganisms are much lower than in untreated municipal wastewater. CSOs exhibit a blend of the untreated characteristics of municipal wastewater and urban

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<sup>110</sup>  $5.63 - 5.34 = 0.29 \times 10 = 2.9$ .

<sup>111</sup> “If the rainstorm is a large one, and the capacity of the storage/transport box sewers is exceeded, treated combined sewer overflows (CSOs) occur at outfalls along the City's shoreline. When combined sewage is temporarily stored in transport/storage structures, floating materials are removed from the water surface and some solids settle to the bottom of the structures. The accumulated solids are then flushed to the treatment plant after the storm has subsided. The treatment that occurs within the structures is approximately equivalent to primary treatment.” (1998 MB FSEIR, p. V.K.8-9.)



stormwater runoff.

(1998 MB FSEIR, p. V.K.4.)

The 1998 Mission Bay FSEIR characterizes the “impairment of Central San Francisco Bay” as follows:

The State Water Resources Control Board (SWRCB) has listed central San Francisco Bay as impaired on the basis of field surveys of the water column, sediments, sediment toxicity, bivalve bioaccumulation, and water toxicity. The determination relates to mercury, copper, selenium, diazinon, and polychlorinated biphenyls (PCBs).

- Mercury. The main source of mercury in the Bay is erosion and drainage from abandoned gold and mercury mines. Other sources include natural sources, atmospheric deposition, and various industrial and municipal sources.
- Copper. Copper enters the Bay through municipal sources, stormwater runoff (primarily through automobile brake pad dust), and other nonpoint sources (such as soils and abandoned mines). These are the three main sources, and they contribute roughly equivalent amounts.
- Selenium. Selenium enters the Bay through industrial point sources (e.g., oil refineries), agriculture, and natural sources. Control programs are in place to address selenium discharges from oil refineries
- Diazinon. Diazinon is a pesticide that enters the Bay as runoff from agriculture and, to a lesser extent, residential land uses. Diazinon is a primary component of insecticides. Homeowner pesticide use peaks in late spring and early summer.
- PCBs. Although PCBs are no longer manufactured in the U.S., PCBs previously released to the environment enter the Bay through stormwater runoff and transport through the food chain. PCB levels in fish have resulted in health advisories for fish consumption.

(1998 MB FSEIR, p. V.K.8-9.)

The above information shows the existing environmental harm (or “preexisting cumulative effect” in the words of *Communities, supra*) is severe, and this Project will make it worse. Therefore, the DSEIR’s finding that the Project’s cumulative CSD impacts on the Bay are less-than-significant is erroneous as a matter of law. It is based on two legal errors: (1) the exclusion of CSD *quantity* from its threshold of significance, which reflects the “de minimis” and “ratio” rationales rejected in *Communities, supra* and *Kings County, supra*; and (2) the DSEIR’s reliance on another agency’s regulatory standards (i.e., the NPDES permit) to determine significance under CEQA.

As discussed in July 21 Hageman, Nov 2 Hageman, and Nov 2 Ringelberg, the Project’s CEQA documents (i.e., the 1998 Mission Bay FSEIR, 2014 NOP/IS, and 2015 DSEIR), fail to



analyze or develop mitigation measures to reduce the Project's likely contribution of a suite of toxic chemicals, including PCBs, to San Francisco Bay in amounts deleterious to the Bay's biota.

Further, it is impossible to place the discussion of this entire issue (at DSEIR pages 5.9-34 to 5.9-36) in a meaningful context, because the DSEIR does not inform the reader if the discussion assumes construction or expansion of permanent wastewater treatment facilities by the SFPUC.

Also, the DSEIR says: "the [Hydroconsult] model estimated the annual average frequency, volume, and duration of CSDs that would occur once the Mariposa wet- and dry-weather pump stations reach the combined capacity of 11.2 mgd under existing and project conditions. The model estimates that under existing conditions, CSDs from the Mariposa sub-basin occur approximately 10 times per year with an average volume of 5.34 million gallons and duration of 17.2 hours." (DSEIR, p. 5.9-35.) This text implies that the "Hydroconsult" model includes wet-weather flows and wet-weather CSDs. But the only Hydroconsult memo cited and included in Appendix HYD states:

Three scenarios were analyzed: base case, project, and cumulative. The base case scenario includes existing conditions plus developments and improvements expected to be substantially complete previous to occupancy of the GSW arena. The project scenario adds the DWF from the arena only and the cumulative scenario adds the project DWF plus DWF from reasonably foreseeable projects in the basin. In all three scenarios, the wet weather flow (stormwater runoff) is assumed to not contribute to the CSS; rather is treated and pumped directly to the Bay. All DWF from the proposed GSW arena is assumed to flow to the Mariposa pump station (MPS), therefore Mariposa is the only basin analyzed.

(DSEIR, Appendix HYD, p.1.) The statement "wet weather flow (stormwater runoff) is assumed to not contribute to the CSS; rather is treated and pumped directly to the Bay" makes sense if it refers only to stormwater from the Mission Bay Redevelopment Area, because all of that stormwater will be separated from wastewater flows when the separate stormwater system for Mission Bay is completed in 2015. (See DSEIR, p. 5.7-4.)<sup>112</sup> But the DSEIR also states that storm water from areas outside Mission Bay will continue to combine with wastewater flows to

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<sup>112</sup>"The separate stormwater system for the Mission Bay South Plan area is currently being implemented by the master developer and includes four drainage zones within the geographic boundaries of the reconfigured Central sub-basin that have already been constructed and one drainage zone within the geographic boundaries of the reconfigured Mariposa sub-basin which is currently under construction. Stormwater in each of the drainage zones flows by gravity to one of five stormwater pump stations in the locations shown on **Figure 5.7-2**, including Pump Station SDPS-5 near the east end of 16th Street. When construction of the fifth drainage basin is completed (anticipated in 2015, prior to construction and operation of the proposed project), all stormwater runoff from Mission Bay South will be conveyed through the separate stormwater system and discharged to the Bay and China Basin Channel (Mission Creek)." (DSEIR, p. 5.7-4 (pdf151).)



the Mariposa Pump Station and will contribute to wet weather CSDs. (DSEIR, p. 5.7-7.)<sup>113</sup> If this is correct, then the Hydroconsult dry-weather analysis is beside the point.

Also, the numbers for Mariposa Pump Station capacity and wastewater or stormwater flows are confusing. For example, DSEIR page 5.9-35 says the Mariposa wet- and dry-weather pump stations have a “combined capacity of 11.2 mgd.” DSEIR page 5.7-7 also refers to “the combined capacity of the Mariposa pump station and transport/storage structure (11.2 mgd).”<sup>114</sup> But DSEIR page 5.9-34 says: “The potential effect would be greatest in the reconfigured Mariposa sub-basin, which has a *wet weather capacity of 12 mgd* (italics added).”

**(a) The Responses to Comments Hyd-3 - Hyd-6 are Inadequate.**

The Alliance’s comments letter regarding hydrology, water quality and biological impacts observed that the DSEIR’s heavy reliance on City compliance with its NPDES permit to ensure the Project’s combined stormwater and sewage impacts are less than significant is an unsupported assumption. (July 24 Lippe, p. 4-10.) The RTC simply repeats this unsupported assumption many times. (See RTC at pp. 13.21-17; 13.18.)

Compliance with these plans, policies, and water quality criteria and objectives as enforced through the Bayside NPDES permit ensures that discharges of treated effluent from the SEWPCP are protective of water quality in San Francisco Bay. Therefore, compliance with the Bayside NPDES permit effluent and receiving water limitations is protective of water quality and it is appropriate to use the requirements of the NPDES permit as a threshold of significance for effluent discharges from the SEWPCP. Using this threshold, the SEIR properly concluded that water quality impacts related to effluent discharges from the SEWPCP are less than significant as described in Impact HYD-6 (pp. 5.9-33 to 5.9-41).

(RTC at p. 13.21-19.)

The Alliance’s previous comment requested that the City support this assumption with

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<sup>113</sup>“The 240-acre reconfigured Mariposa sub-basin of the combined sewer system is divided into two tributary areas that direct flow to the Mariposa Pump Station. Tributary B includes Potrero Hill to the south of Mariposa Street and is outside of the Mission Bay Plan area; this tributary area directs both rainwater and wastewater to the pump station. Tributary A includes areas to the north of Mariposa Street that are located within the Plan area; in this area, stormwater flows are directed to the separate stormwater system constructed for the Mission Bay South development, and only wastewater flows are directed to the Mariposa Pump Station.” (DSEIR, p. 5.7-7.)

<sup>114</sup>“In the event that wet weather flows in the Mariposa subbasin exceed the combined capacity of the Mariposa pump station and transport/storage structure (11.2 mgd), the excess flows are discharged to the Bay as a combined sewer discharge after receiving flow-through treatment in the transport and storage structure.”



evidence. The RTC fails to do so. Therefore, the Alliance gathered that evidence, and it shows the City has a continuous, consistent, and pervasive pattern of violating its NPDES permits. (See Nov 2 Lippe FSEIR, Exhibit M.) Therefore, the SEIR's assumed basis for finding water quality impacts less than significant is false.

My July 24, 2015, comment letter regarding hydrology, water quality and biological impacts observed that the DSEIR's threshold of significance for the effect of untreated wastewater discharges to the Bay, which consists of limiting such discharges to 10 per year, ignores the quantity and duration of such discharges. The response stresses the work the City must do to prevent municipal wastewater from degrading water quality in the Bay, stating:

As described in the permit, and on p. 5.9-20 of the SEIR, the SFPUC must implement the following nine minimum controls in accordance with the Combined Sewer Overflow Policy to reduce the frequency of combined sewer discharges and their effect on receiving water quality:

1. Conduct proper operation and regular maintenance programs for the combined sewer system and combined sewer discharge outfalls;
2. Maximize the use of the collection system for storage;
3. Review and modify pretreatment programs to minimize the effect of non-domestic discharges to the collection system;
4. Maximize flow to the SEWPCP and North Point Facility for treatment;
5. Prohibit combined sewer discharges during dry weather;
6. Control solids and floatable materials in combined sewer discharges;
7. Develop and implement a pollution prevention program focused on reducing the effect of combined sewer discharges on receiving waters;
8. Notify the public of combined sewer discharges; and
9. Monitor to effectively characterize combined sewer discharge effects and the efficacy of combined sewer discharge controls.

These controls represent the best conventional and best available technology economically achievable as required under the Clean Water Act. The City is currently implementing these controls as required by the Combined Sewer Overflow Control Policy.

(RTC at p. 13.21-26.) This is all good and important work, but it is non-responsive to the Alliance's comment. The fact that these measures are the best the City can, or is legally required to do, is not relevant to whether the impact is significant. It may be relevant to whether further mitigation of the impact is feasible or effective, but these considerations cannot affect whether the impact is deemed significant.

The top two paragraphs on page 13.21-27 of the RTC assert that all waste water is treated. This is beside the point that the City anticipates and is allowed by its NPDES permit up to 10 discharges per year of waste water subject to only primary, rather than secondary, treatment.



The RTC appears to reject the Alliance's comment that the SEIR ignores duration and quantity, not just frequency, of the 10 discharges per year on grounds the NPDES permit does not address the duration and quantity of these discharges. But the issue here is whether impacts on Bay water quality are significant. CEQA does not allow the use of the NPDES permit terms as an absolute proxy for that determination.

In addition, the RTC fails to adequately respond to the Alliance's comments that the Project will cause potentially significant harm by mobilizing and transporting hazardous materials, including PCBs, to the Bay in stormwater runoff.

As hydrologist Matt Hageman states:

Our comments noted the detection of PCB in soil at the Project site and the need to implement measures during soil disturbing construction activities to prevent the transport of contamination to San Francisco Bay via stormwater. Response HYD-2 simply states that stormwater BMPs for PCBs must be consistent with best available technology economically achievable to meet requirements of the California Construction General Permit (p. 13.21-12). However, the Response does not specify BMPs that would meet this requirement. It is key that certification of the FSEIR is upheld until BMPs specific to preventing the spread of PCB contamination are identified.

(See Nov 1 SWAPE, p. 1.) Biologist Erik Ringelberg makes the same points for a broader range of materials, stating:

Stormwater Mitigation. The biological effects of stormwater on the environment are not properly analyzed. The offered responses to comments regarding stormwater mitigation are particularly ironic given that the site has demonstrably failed to maintain its Best Management Practices (BMPs) and has visible waste material literally clogging its stormwater drains. (See BSK comments.) The concept that simply stating that a BMP will work, without analyzing the nature of the impacts, and without maintaining those BMPs calls into question every part of the DSEIR that relates to sediment, toxins and wildlife exposures. For illustration, the BMPs at the site currently are not properly maintained and have been filled in or partly filled in with sediment, or breached completely. However, even if these sediment BMPs had been installed correctly and maintained, they do nothing for dissolved-fraction toxic chemicals. The project fails to implement the sediment BMPs correctly and does not even offer readily implementable BMPs for dissolved-fraction chemicals found at the site 4, 5, 6, 7. Yet, the Response states unequivocally, any potential effects associated with contaminated stormwater runoff into San Francisco Bay would be avoided during construction through compliance with the Construction General Permit and implementation of a Stormwater Pollution Prevention Plan (SWPPP) as described in the Section



13.21, Response HYD-2. (p. 13.19-22) The SWPPP is solely intended to manage ordinary construction sediment and has no specific intent to manage hazardous waste, and in any case does nothing for dissolved hazardous chemicals.

(Nov 2 Ringelberg, pp. 10-11.)

**3. The DSEIR Is Not Sufficient as an Informational Document with Respect to Project Impacts on Biological Resources, Including Wetlands and Wildlife.<sup>115</sup>**

**(a) The SEIR's exclusion of the Project's impacts on biological resources is erroneous.**

The lead agencies' decision to exclude the Project's impacts on biological resources from the DSEIR (see DSEIR, p. 5.1-1) is erroneous as a matter of law. Both the NOP/IS and the DSEIR announce that their analyses are "tiered" to the 1998 Mission Bay FSEIR pursuant to CEQA Guideline 15168(c). (IS, p. 23-24; DSEIR, pp. 1-1, 5.1-2, 3.) Both the NOP/IS and the DSEIR also announce that the standards used to exclude resource topics from the DSEIR are the standards used to determine if a subsequent EIR is required under CEQA section 21166 and Guideline section 15162. (See NOP/IS, pp. 23-25; DSEIR, p. 5.1-3.)

Based on these predicates, the City decided to prepare a focused EIR, and to conduct no environmental review with respect to the following resources: Biological Resources, Aesthetics, Land Use Cultural Resources, Paleontological Resources, Geology and Soils, Recreation, Hazardous Materials, and Population and Housing. As discussed in more detail in the July 27, 2015, letter from the Mission Bay Alliance's legal counsel regarding "tiering," the City's assumption that it may prepare an EIR for this Project that tiers to the 1998 Mission Bay FSEIR is legally incorrect. As discussed in several comment letters submitted on behalf of the Mission Bay Alliance, and below regarding the Project's impacts on biological resources, the evidence relating to these excluded resource topics meets both the "fair argument" standard, as well as the CEQA section 21166 standards. Moreover, the SEIR's exclusion of the Project's impacts on biological resources is an omission of required information under CEQA that is reviewed de novo by the courts. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1207-08.) Therefore, the City must prepare and recirculate for public review a Revised Draft EIR addressing all of the Project's environmental impacts.

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<sup>115</sup> July 26 Lippe, pp. 11-15; July 16 BSK Wetland; July 21 Ringelberg; Oct 29 BSK Wetland; Nov 2 Lippe FSEIR, pp. 10-15; Nov 2 BSK; Nov 2 Ringelberg; October 7, 2015, letter to OCII from Soluri Meserve regarding Clean Water Act 404 and CZMA Consistency.



- (b) The SEIR's exclusion of the Project's impacts on biological resources is erroneous because the lead agency failed to prepare any CEQA document that adequately describes the Project's environmental setting to allow an assessment of the Project's impacts on biological resources.**

The principal BSK Associates reports referenced here establish that the SEIR fails to adequately describe the environmental setting.<sup>116</sup> "An EIR must contain an accurate description of the project's environmental setting. ... There is good reason for this requirement: 'Knowledge of the regional setting is critical to the assessment of environmental impacts.'" (*Friends of the Eel River v. Sonoma County Water Agency* (2003) 108 Cal.App.4th 859, 874.)

The full range of environmental setting information which the SEIR fails to describe is discussed in the four BSK Associates reports referenced here which are incorporated herein by this reference.

- (c) There is substantial evidence supporting a fair argument the Project will have a significant adverse effect on biological resources.**

While the NOP/IS give short shrift to on-site biological resources, there is substantial evidence, in the NOP/IS and in July 21 Hageman, Nov 2 Hageman, July 21 Ringelberg, Nov 2 BSK, and Nov 2 Ringelberg, supporting a fair argument the Project may have significant effects on (1) migratory birds; (2) off-site special status species downstream of the Project, including steelhead (*Oncorhynchus mykiss*); and (3) the on-site wetland and its ecology and associated wildlife.

With respect to migratory birds, the NOP/IS admits that the 1998 Mission Bay FSEIR did not assess the Redevelopment Plan's effects on migratory birds. (NOP/IS, p. 81.) In addition, the NOP/IS concedes the Project may have significant impacts on migratory birds because it recommends the adoption of mitigation measures to substantially reduce these impacts, stating: "With implementation Mitigation Measures M-BI-4a, Preconstruction Surveys for Nesting Birds, and M-BI-4b, Bird Safe Building Practices, the project would not result in any new or substantially more severe significant impacts on resident or migratory bird species than those identified in the FSEIR." (NOP/IS, p. 81.)

This approach violates CEQA in a number of ways. First, as discussed above, the Project is a separate project from the 1998 Redevelopment Plan, or at a minimum, is not within the scope of the 1998 Mission Bay FSEIR. This fact precludes the City from "tiering" to the 1998 FSEIR for any resource, including impacts on biological resources such as migratory birds.<sup>117</sup> Second, trying to mitigate significant impacts before assessing their nature and extent puts the cart before

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<sup>116</sup>July 21 Ringelberg, Nov 2 BSK, Nov 2 Ringelberg, July 16 BSK Wetland, and Oct 29 BSK Wetland.

<sup>117</sup>*Sierra Nevada Conservation, supra.*



the horse.<sup>118</sup> Third, as discussed above, the NOP/IS's concession that the Project may have significant impacts on migratory birds is substantial evidence supporting a fair argument the Project will have a significant adverse effect on migratory birds; therefore, the City is required to include an assessment of these impacts in the DSEIR.<sup>119</sup> Fourth, even if the City's assumption that CEQA section 21166 applies is correct, the addition of a 750,000 square foot sports arena and an additional 160 foot office tower to the Mission Bay Redevelopment Plan are substantial changes in the Redevelopment Plan that give rise to new potentially significant effects on birds that must be analyzed in the subsequent EIR.

With respect to impacts on special status species, the NOP/IS states:

At the time of preparation of the Mission Bay FSEIR, the project site contained several buildings and facilities and was noted as lacking any notable vegetative habitat, with no state listed threatened, endangered or rare plants, or rare, threatened or endangered animal species known to occur in the upland portion of the Mission Bay plan area, including the project site. Subsequent to that time, the project site has been subject to building removal, grading, excavation, and construction of paved surface parking lots, fencing and utilities on portions of the site. Other than the creation of the depression as a result of remediation actions, no other changes in the site since the preparation of the FSEIR have altered the characteristics of the site in relation to biological habitat. These changes in conditions on the project site have not altered the fact that the site provides no suitable habitat for any sensitive or special status species due to the sparse and ruderal nature of onsite vegetation, as well as the site's location in a densely urbanized environment, as confirmed through the reconnaissance survey and database review of special status species occurrences within the vicinity of the project site. In addition, there have been no substantial changes with respect to the circumstances under which the project would be undertaken, nor has any new information become available that demonstrates new or more severe impacts associated with the proposed project.

(NOP/IS, pp. 78-79.)

But as Mr Ringelberg points out:

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<sup>118</sup>CEQA does not permit an agency to simply adopt mitigation measures in lieu of fully assessing a project's potentially significant environmental impacts because mere acknowledgment that an impact would be significant is inadequate; the EIR must include a detailed analysis of "how adverse" the impact would be. (*Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 655-56; *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1123; *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.)

<sup>119</sup>*Protect the Historic Amador Waterways, supra.*



the potential project impacts to the closest federally designated critical habitat is steelhead *Oncorhynchus mykiss* are ignored. This habitat runs directly adjacent to the project area. In addition, San Francisco manzanita (*Arctostaphylos franciscana*) critical habitat is present approximately 2.6 miles to the west and should also have been identified and analyzed. The federal critical habitat analysis is missing, and the provided analysis itself is defective. The potential project's impact(s) to these listed species and their critical habitat are therefore unexamined. The project's dust, stormwater, surface flooding, and groundwater place those species at risk from hazardous chemicals.

(July 21 Ringelberg, p. 11.)

As both Mr. Hageman and Mr. Ringelberg point out, none of the Project's CEQA documents assess the effects of toxic chemical runoff on Bay biota, including steelhead. Where, as here, the lead agency fails to study an area of possible environmental impact, a fair argument may be based on the limited facts in the record because deficiencies in the record may enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences." (*Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311.)

Further, there is substantial evidence in July 21 Hageman, Nov 2 Hageman, July 21 Ringelberg, Nov 2 BSK, and Nov 2 Ringelberg, supporting a fair argument the Project may have significant effects on steelhead from toxic runoff. Again, even if CEQA section 21166 applies, CEQA requires including this issue in the subsequent EIR. The Phase 11 reports showing the site is contaminated with a suite of toxic compounds is significant new information showing the potential for new significant effects not previously identified.<sup>120</sup>

With respect to potential impacts on the on-site wetland, the NOP/IS indicates the DSEIR will not assess impacts on the wetland even though the 1998 FSEIR did not, and could not have, analyzed the wetland since it was apparently created sometime after 2005. (See July 21 Ringelberg, Figure 1 and accompanying text.)

Typically, if there is a potential wetland resource, there would be a formal delineation prior to release of the DEIR so the resource can be analyzed, and appropriate mitigation developed. Here, the NOP/IS claims it may not be jurisdictional (p. 80), and at the same time attempts to suggest mitigation (p. 81) in case it is. But the mitigation suggested is not enforceable, in violation of CEQA. Further, as discussed above, trying to mitigate impacts before assessing their significance puts the cart before the horse. (*Lotus v. Department of*

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<sup>120</sup> See Letter to Marty Glick re: Phase 2 Subsurface Investigation Approval, Golden State Warriors Arena, Blocks 29-32, San Francisco, CA 94158; Phase II Environmental Site Assessment, Golden State Warriors Arena, Blocks 29-32, Mission Bay, San Francisco, California.



*Transportation, supra.*)<sup>121</sup>

In addition, the NOP/IS' evidentiary basis for dismissing the wetland from the DSEIR is flimsy, stating:

Because the excavation depressions on the site are small, isolated features resulting from recently completed hazardous materials remediation activities and are surrounded by paved areas and urban development, these features do not provide the important biological habitat functions and values that are typically associated with federally protected wetlands.

(NOP/IS, pp. 78-79.) But as Mr. Ringelberg points out:

Conversely, and in rebuttal to their prior assertion that there are readily substitutable habitats nearby, small wetland features can have exceptional ecological value, in particular if they are one of the few remaining features in an urban setting.

(July 21 Ringelberg, p. 6.)

Further, there is substantial evidence in the report from Erik Ringelberg supporting a fair argument the Project may have a significant effect by destroying the on-site wetland. Again, even if CEQA section 21166 applies, CEQA requires, including this issue in the subsequent EIR, because the presence of the wetland is a change in circumstances since certification of the 1998 FSEIR that gives rise to the potential for new significant effects not previously identified.

**(d) The Response to Comment Bio-5 is Inadequate.**

The FSEIR argues that the wetland feature on the site is not a state or federal wetland. Yet Response BIO-5 provides no evidence of consultation with either the U.S. Army Corps of Engineers ("Corps") or the State Water Resources Control Board ("SWRCB") regarding the status of the feature. With respect to the jurisdiction of the Corps, the FSEIR claims that under draft regulations that are stayed, the feature would be exempted from jurisdiction. This interpretation is not supported by any specific language in the referenced Sixth Circuit Court of Appeals decision, and thus has no authority.

The FSEIR also argues that the site was never abandoned such that the feature would have been "recaptured" as a wetland under the Clean Water Act. Yet no explanation is provided for the lack of any activities at the site or changes to the wetland feature between 2007 and 2014, a period of seven years. This inactivity at the site is demonstrated in the plates included in the July 16 BSK Wetland report, at Figures 2a-2e.

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<sup>121</sup> Also, the NOP/IS fails to even mention the state wetland policy (WRAPP) under Porter Cologne (fn. 49).



The FSEIR also makes the circular argument that the existence of priority pollutants within the wetland feature is irrelevant because the City does not consider the wetland feature to be jurisdictional. Again, no credible evidence is provided to support the argument that the wetland is not subject to federal jurisdiction in the first place.

The FSEIR incorrectly relies exclusively on federal law and ignores the broader jurisdiction of the state over all of its waters, including wholly constructed features. As such the SEIR fails to adequately describe the sites physical features, the relevant regulatory requirements, and the avoidance, minimization and mitigation requirements it would be subject to. State waters are more broadly defined than waters of the U.S.: “‘Waters of the state’ means any surface water or groundwater, including saline waters, within the boundaries of the state.” (Wat. Code, 13050, subd. (e).) This has been interpreted by the SWRCB to literally “include all waters within the state’s boundaries, whether private or public, including waters in both natural and artificial channels.” Contrary to RTC BIO-5, the fact that the remediation at the site was at one time overseen by the San Francisco Regional Water Quality Control Board (“RWQCB”) has no bearing on whether the feature would be considered jurisdictional by the SWRCB. While the SWRCB may choose to follow jurisdictional determinations by the Corps, the SWRCB has much broader authorities and may also assert jurisdiction under the parameters of Water Code section 13050, subdivision (e). As the FSEIR cannot point to any jurisdictional determination by the Corps, there is nothing for the SWRCB to follow; therefore, it would follow its own regulations and orders.<sup>122</sup>

As explained in comments submitted by the Alliance, the need for a Clean Water Act (“CWA”) section 404 fill permit also requires the Corps to prepare a Coastal Zone Management Act (“CZMA”) consistency finding, as required by the Bay Conservation Development Commission. (See Oct 7, SM Law, CWA 404.) The FSEIR’s attempted rebuttal of the need for a Coastal Zone Management Act (“CZMA”) consistency determination is also incorrect. In addition to claiming that the requirement does not apply because the City (not the Corps or the SWRCB) has determined that the feature is not jurisdictional, the FSEIR argues that filling the wetland would have no effect on resources in the coastal zone. As explained below, however, the wetland complex has significant habitat value to biological resources and supports coastal resources. As a result, a CZMA consistency determination is required.

To further substantiate the existence of the wetland features on the site, BSK Associates has prepared a desktop delineation for submittal to the Corps to finally resolve the issue of

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<sup>122</sup>See Executive Order W-59-93 attached as Exhibit N to Nov 2 Lippe FSEIR; State Water Resources Control Board Memorandum, January 25, 2001, Effect of SWANCC v. United States on the 401 Certification Program attached as Exhibit O to Nov 2 Lippe FSEIR; State Water Resources Control Board Guidance, June 25, 2004, for Regulation of Discharges to “Isolated” Waters attached as Exhibit P to Nov 2 Lippe FSEIR; State Water Resources Control Board Order NO. 2004-0004-DWQ attached as Exhibit Q to Nov 2 Lippe FSEIR; State Water Resources Control Board Resolution NO. 2008-0026 attached as Exhibit P to Nov 2 Lippe FSEIR.



jurisdiction. (See Exhibit L to Nov 2 Lippe FSEIR.) BSK determined there are 0.51 acres of permanent wetlands at the site. The delineation also explains that the wetland provides the following nexus functions with the San Francisco Bay: (i) Sediment trapping, (ii) Nutrient recycling, (iii) Pollutant trapping, transformation, filtering, and transport, (iv) Retention and attenuation of flood waters, (v) Runoff storage, (vi) Export of organic matter, (vii) Export of food resources, and (ix) Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species.

The purpose of environmental review is to inform the public of the likely effects of carrying out a project. Here, the IS/NOP failed to accurately describe the wetland on the site, or to even provide a process by which the feature would be further investigated and the appropriate mitigation required. The information submitted by the Alliance constitutes substantial evidence of a fair argument that the Project will have a significant adverse effect on biological resources. In the alternative, per CEQA section 21166 and CEQA Guidelines section 15162, the facts described above constitute a change in circumstances since the 1998 SEIR involving, and significant new information showing, a new significant effect not previously analyzed in the 1998 SEIR. Under either standard, the OCII and the City must prepare and circulate for public comment an environmental impact report to review the Project's impacts on this wetland resource.

Despite the existence of likely jurisdictional wetlands on the site, the DSEIR ignores the Project's need for a 404 CWA fill permit and the accompanying CZMA consistency determination in the list of project approvals. (DSEIR, pp. 3-51 to 52.) The DSEIR also fails to address the potential jurisdiction of the SWRCB over wetland and other biological resources on the site. As a result of these omissions, the DSEIR fails as an informational document.

**E. THE SEIR IS NOT SUFFICIENT AS AN INFORMATIONAL DOCUMENT WITH RESPECT TO NOISE IMPACTS.<sup>123</sup>**

**1. The SEIR's Thresholds of Significance Are Unlawful under CEQA.**

**(a) The SEIR's use of regulatory thresholds of the San Francisco Noise Ordinance as its CEQA thresholds of significance is an error of law.<sup>124</sup>**

For purposes of both operational noise sources such as crowds and traffic and construction noise sources such as both impact and non-impact equipment, the SEIR uses regulatory thresholds of the San Francisco Noise Ordinance as thresholds of significance for CEQA purposes. This is an error of law, because it injects the question of what is "allowed," the which is the final step in the CEQA process, into the determination of "significance," which is

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<sup>123</sup>July 25 Lippe; July 24 Hubach; Nov 2 Lippe FSEIR, pp. 1-2, 14-15; Nov 2 Hubach.

<sup>124</sup>July 25 Lippe; July 24 Hubach; Nov 2 Lippe FSEIR, pp. 1-2, 14-15; Nov 2 Hubach.



the first step in the CEQA process. The question of what is allowed, in both the final step of the CEQA process and in San Francisco's legislative decision to set regulatory thresholds in the Noise Ordinance, involves weighing considerations relating to the social and economic benefits of the Project. The determination of "significance" under CEQA does not.

Injecting consideration of what is "allowed" into the determination of "significance" subverts the integrity of the entire analysis. For projects for which an EIR has been prepared, both the EIR and the mandatory findings required by CEQA section 21081, the analysis starts with whether an impact is significant. A finding of significance triggers the obligation to identify and adopt feasible mitigation measures that are effective in substantially reducing the significant impact. Once all feasible and effective mitigation measures have been identified and adopted, if the impact remains significant, the agency may approve the project if it finds that social or economic considerations outweigh environmental harm. Each of these steps in the analysis is distinct.

The RTC's responses to comments conflate and confuse these steps, and thereby undermine the integrity of the analysis. This conflation of the distinct steps in the analysis explains why the FSEIR/RTC's insistence on using the San Francisco Police Code's regulatory requirements (i.e., the City's final resolution of what is allowed and what is not allowed) as thresholds of significance is inconsistent with CEQA. The Police Code's regulatory requirements reflect the City's effort to balance the protection of people from harmful noise against the need for social and economic activity. That balance does not necessarily reflect the point at which impacts become significant. Under CEQA, such balancing is also required, but not where significance is determined. In short, even where the lead agency believes an activity should be "allowed" because the social or economic considerations outweigh the environmental harm, the EIR must still disclose whether the impact is significant.

**(b) The SEIR fails to use thresholds of significance based on human health and welfare.<sup>125</sup>**

The SEIR's use of regulatory thresholds of the San Francisco Noise Ordinance as its CEQA thresholds of significance and its reliance on other agencies' thresholds of significance are errors of law because the SEIR fails to use thresholds of significance based on human health and welfare. The DSEIR refers to the World Health Organization (WHO) as "perhaps the best source of current knowledge regarding the health effects of noise impacts because European nations have continued to study noise and its health effects, while the United States Environmental Protection Agency all but eliminated its noise investigation and control program in the 1970s." (DSEIR, p. 5.3-4.) The DSEIR also cites WHO's Guidelines for Community Noise and its thresholds for adverse effects of noise on people.

In contrast to many other environmental problems, noise pollution continues to

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<sup>125</sup> July 25 Lippe, pp. 4-7; July 24 Hubach, pp. 3-6, Nov 2 Lippe FSEIR, pp. 1-2, 14-15; Nov 2 Hubach.



grow and it is accompanied by an increasing number of complaints from people exposed to the noise. The growth in noise pollution is unsustainable because it involves direct, as well as cumulative, adverse health effects.

(WHO, Guidelines for Community Noise, p. vii.)

Specific effects to be considered when setting community noise guidelines include: interference with communication; noise-induced hearing loss; sleep disturbance effects; cardiovascular and psycho-physiological effects; performance reduction effects; annoyance responses; and effects on social behaviour.

(WHO, Guidelines for Community Noise, p. v.)

The scope of WHO's effort to derive guidelines for community noise is to consolidate actual scientific knowledge on the health impacts of community noise and to provide guidance to environmental health authorities and professionals trying to protect people from the harmful effects of noise in non-industrial environments.

(WHO, Guidelines for Community Noise, p. iii.)

As discussed by Mr. Hubach:

WHO's night-time standard for sleep disturbance inside bedrooms is 30 dBA, and outside bedrooms with "window open (outdoor values)" is 45 dBA. WHO's night-time and daytime standard for "speech intelligibility and moderate annoyance" for inside dwellings is 35 dBA. For outdoor living areas, WHO's daytime and evening standard for moderate annoyance is 50 dBA and for serious annoyance is 55 dBA.

(July 24 Hubach, p. 3.) Yet, despite citing the WHO Guidelines, the DSEIR fails to use these standards as its thresholds of significance, and finds that "ambient plus project" noise levels much higher than the WHO's standards for harmful noise are less than significant.

Another human health and welfare based standard is provided by the State of California:

State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are collectively known as the California Noise Insulation Standards and are found in Title 24 of the California Code of Regulations.

The State of California updated its Building Code requirements with respect to



sound transmission, effective January 2014. Section 1207 of the California Building Code (Title 24 of the California Code of Regulations) establishes material requirements in terms of sound transmission class (STC) 13 rating of 50 for all common interior walls and floor/ceiling assemblies between adjacent dwelling units or between dwelling units and adjacent public area. The previous code requirements (before 2014) set an interior performance standard of 45 dBA from exterior noise sources. This requirement will be re-instated in July of 2015.

(DSEIR, p. 5.3-10.) DSEIR does not tell us what buildings in area comply with this code. (See DSEIR § 5.3.3.4 [Sensitive Receptors], and Table 5.3-4.) However, as Mr. Hubach observes:

Table 5.3-8 shows that all three receptors chosen for analysis will add construction noise to pre-existing ambient noise levels that already exceed the health and welfare based standards discussed above. As a result of construction operations (assuming all noise producing construction operations occur at the same time, noise levels at the Madrone Residential Tower will rise from 70.1 to 70.9 dBA (hourly Leq), at the Hearst Residential Tower from 71.2 to 80.8 dBA (hourly Leq), and at UCSF Hospital from 67 to 72.8 dBA (hourly Leq).

(July 24 Hubach, p. 4.) Since the Project's noise, when added to background or ambient noise, exceeds the above health and welfare based standards, the impact is significant even if the impact does not violate the San Francisco Police Code.

## **2. The SEIR's Use of "Ambient plus Increment" Thresholds of Significance for All Noise Impacts Is Legal Error.<sup>126</sup>**

As described by Mr. Hubach in the context of operational noise impacts (Impact NO-5), the DSEIR uses a series of "ambient plus increment" thresholds. As discussed by Mr. Hubach, using "ambient plus increment" thresholds where existing noise levels are already high:

disregards the fact the Project will make severe conditions worse. In addition, using these "ambient plus increment" thresholds for operational noise results in an unsustainable gradual increase in ambient noise. It is a formula for ever-increasing noise levels because each new project establishes a new, higher, baseline; then when the next project is approved, the incremental change will be added to the new baseline.

(July 24 Hubach, p. 5.)

By ignoring the severity of existing noise levels and only looking to the "de minimis" nature of the Project's incremental effect, the DSEIR's noise impact determinations violate

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<sup>126</sup>July 25 Lippe; July 24 Hubach Nov 2 Lippe FSEIR, pp. 1-2, 14-15; Nov 2 Hubach.



CEQA. (See *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 120 (“CBE”) [“[T]he relevant question”... is not how the effect of the project at issue compares to the preexisting cumulative effect, but whether “any additional amount” of effect should be considered significant in the context of the existing cumulative effect. [footnote omitted] In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project’s contribution to cumulative impacts as significant. [footnote omitted]”].)<sup>127</sup> *Communities* and *Kings County* teach that the significance of a cumulative impact depends on the environmental setting in which it occurs, especially the severity of existing environmental harm.

### **3. The Construction Refinements and New Project Require Recirculation.**

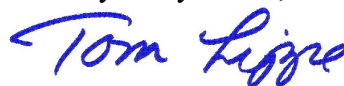
As noted above, the RTC describes a number of “construction refinements,” including using dewatering generators, using a soil treatment pug mill, and removing rapid impact compaction from the construction plan and a new Project Variant. With respect to the air quality impacts of these construction refinements and new Project Variant, the RTC finds these changes do not create a new significant noise impact, or a substantial increase in severity of a previously identified significant noise impact, and therefore, recirculation is not required.

As described in the Nov 2 Hubach letter, the construction refinements and new Project Variant will create new significant impacts. The RTC’s findings to the contrary reflect the same flawed “existing ambient plus project increment” thresholds of significance discussed above regarding noise impacts.

## **III. CONCLUSION**

For the reasons described above, the Board of Supervisors should grant this appeal and void the OCII’s certification of the SEIR.

Very Truly Yours,



Thomas N. Lippe

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<sup>127</sup>*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 720-21 [“They contend in assessing significance the EIR focuses upon the ratio between the project’s impacts and the overall problem, contrary to the intent of CEQA.... We find the analysis used in the EIR and urged by GWF avoids analyzing the severity of the problem and allows the approval of projects which, when taken in isolation, appear insignificant, but when viewed together, appear startling. Under GWF’s ‘ratio’ theory, the greater the overall problem, the less significance a project has in a cumulative impacts analysis. We conclude the standard for a cumulative impacts analysis is defined by the use of the term ‘collectively significant’ in Guidelines section 15355 and the analysis must assess the collective or combined effect of energy development”].)



# EXHIBIT 1





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November 20, 2015

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The Law Offices of Thomas N. Lippe  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject:       Comments on the Event Center and Mixed-Use Development Project at  
Mission Bay Blocks 29-32**

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Dear Mr. Lippe:

We previously reviewed the October 23, 2015 Final Subsequent Environmental Impact Report (FSEIR) for the Event Center and Mixed-Use Development at Mission Bay Blocks 29-32 Project ("Project") and submitted a November 2, 2015 letter addressing deficiencies in the FSEIR's impact analyses. After submission of our November 2 letter, we reviewed the CEQA findings rejecting the alternative project site proposed by Mission Bay Alliance (MBA) and the new health risk assessment in the FSEIR. We have determined that the rejection of the MBA alternative location based on the claim that it would have more severe air quality impacts is unjustified. We have also confirmed that the new health risk assessment in the FSEIR does not alter the conclusions in our November 2, 2015 letter that the SEIR fails to adequately evaluate the Project's health risks.

### **Failure to Adequately Evaluate Project Health Risk**

In our November 2 letter, we found that the health risk assessment conducted in the FSEIR was inadequate for the following three reasons:

1. The FSEIR failed to provide a project-specific health risk assessment for the Project;
2. The FSEIR's cumulative health risk assessment does not account for all foreseeable sources of toxic air contaminant (TAC) emissions; and
3. The FSEIR failed to incorporate updated child breathing rates, set forth by the Office of Environmental Health Hazard Assessment (OEHHHA) in their 2012 and 2015 recent guidance.

We have reviewed the FSEIR's updated health risk assessment, and have determined that it does not change the conclusions made in our November 2 letter.



## Failure to Assess Individual Health Risk from Proposed Project

The FSEIR's updated health risk assessment is based on revisions to the Project description that would make a number of changes affecting toxic air contaminants, including locating the proposed emergency generators above grade, rather than within the parking structure on Lower Parking Level 1, as originally proposed in the DSEIR (FSEIR, p. 14-118). While this change in location reduces the Project's health risk impact, it does not reduce it to below applicable significance thresholds, nor does it change the fact that both the DSEIR and FSEIR incorrectly rely upon cumulative criteria used to identify Air Pollutant Exposure Zone (APEZ) communities to make significance determinations.

As previously discussed in our November 2 letter, the FSEIR fails to assess the Project's individual health risk. Instead, the FSEIR assesses only the Project's cumulative health risk impact. This approach, however, is inadequate, as CEQA requires the assessment of both cumulative and project-specific impacts. The Project's individual health risk should have been compared to a threshold of significance for project-specific impacts, such as the Bay Area Air Quality Management District's (BAAQMD) project-level significance threshold of 10 in one million.<sup>1</sup> This is the threshold of significance used by the majority of California air districts.<sup>2</sup>

Our November 2 letter demonstrated that the Project's excess cancers were well in excess of the 10 in one million threshold used by BAAQMD (see table below) (DSEIR, Table 5.4-11, p. 5.4-49).

DSEIR Health Risk Assessment			
Sensitive Receptor	Project Risk	Threshold	Exceed?
<i>Excess Cancers in One Million</i>			
UCSF Hearst Tower Child Resident	46	10	<b>Yes</b>
UCSF Hearst Tower Adult Resident	38	10	<b>Yes</b>
UCSF Hospital Child Resident	42	10	<b>Yes</b>

This analysis relied upon data from the DSEIR's health risk assessment. When the Project-level risk from the FSEIR's health risk assessment is compared to this same threshold, we still find that the Project poses a significant health risk at three of the four sensitive receptors (see table below) (FSEIR, Table 5.4-11 Revised, p. 14-121).

FSEIR Health Risk Assessment			
Sensitive Receptor	Project Risk	Threshold	Exceed?
<i>Excess Cancers in One Million</i>			
UCSF Hearst Tower Child Resident	18	10	<b>Yes</b>
UCSF Hearst Tower Adult Resident	8	10	<b>No</b>
UCSF Hospital Child Resident	12	10	<b>Yes</b>

<sup>1</sup> "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2011, available at: [http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines\\_May%202011\\_5\\_3\\_11.ashx](http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx), p. 5-3

<sup>2</sup> "Health Risk Assessments for Proposed Land Use Projects," California Air Pollution Control Officers Association 2009, page 11, available at: [http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA\\_HRA\\_LU\\_Guidelines\\_8-6-09.pdf](http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf).



The health risk posed to a child resident of 18 in one million at the UCSF Hearst Tower well exceeds the 10 in one million threshold, nearly doubling it. Therefore, even using these updated risk values, the Project will still, by itself, have a significant health risk impact.

### Failure to Include All Local Sources in Cumulative Analysis

In our November 2, 2015 letter we explained that, by relying on citywide modeling that omits local impacts from new mobile-source emissions within the Project vicinity, the DSEIR's cumulative health risk assessment is not representative of all foreseeable sources of diesel particulate matter. We pointed out that the Mission Bay EIR provides that, at buildout, the proposed developments are anticipated to generate approximately 218,549 vehicle trips per day, and approximately 2,684 truck trips per day.<sup>3</sup> We demonstrated that a significant portion of that new development would occur within the 1,000 foot radius used by the SEIR to evaluate cancer risk. We also pointed out that construction emissions from major developments within the area, while analyzed, were not included in the citywide model. We concluded that the DSEIR greatly underestimated the cumulative health risk by omitting these foreseeable future sources.

The FSEIR's new health risk assessment does not correct these omissions. The new assessment uses the same values, assumptions, and sources for the non-Project "2014 Background Risk" as the analysis in the DSEIR (see tables below).

**DSEIR Background Cancer Risk (DSEIR, Volume 3, pdf p. 1225)**

Source	UCSF Hearst Tower		UCSF Hospital Receptor
	Child Resident	Adult Resident	Child Resident
Background at the maximally impacted receptor	26	26	44

**FSEIR Background Cancer Risk (FSEIR, Volume 6, pdf p. 412)**

Scenario	Units	Dormitory Receptor		Hospital Child Receptor
		Child Resident	Adult Resident	
Diesel PM Cancer Potency Factor (CPF) <sup>1</sup>	[mg/kg-day] <sup>-1</sup>	1.1	1.1	1.1
Excess Cancer Risk from Uncontrolled Construction Emissions <sup>2,3</sup>	[in a million]	54 55	2.8 2.9	28
Excess Cancer Risk from Tier 4 Controlled Construction Emissions <sup>2,3</sup>	[in a million]	7.7 8.6	0.40 0.45	4.0 4.1
Excess Cancer Risk from Tier 2 + ARB NOx VDECS Controlled Construction Emissions <sup>2,3</sup>	[in a million]	9.2 11	0.48 0.55	4.8 4.9
Excess Cancer Risk from Operational Traffic Emissions <sup>4</sup>	[in a million]	7.2	7.2	7.2
Excess Cancer Risk from Emergency Diesel Generators <sup>4</sup>	[in a million]	30	30	30
Excess Cancer Risk from South Street Tower Emergency Diesel Generator <sup>5</sup>	[in a million]	0.085	0.050	0.0045
Excess Cancer Risk from 16 <sup>th</sup> Street Tower Emergency Diesel Generator <sup>5</sup>	[in a million]	0.033	0.019	0.013
Excess Cancer Risk from GSW Arena Emergency Diesel Generators <sup>5</sup>	[in a million]	0.12	0.072	0.038
2014 Background Risk <sup>6</sup>	[in a million]	26	26	44

Accordingly, the objection that this non-Project cumulative risk does not include all foreseeable sources as set out in our November 2 letter still applies.

<sup>3</sup> "Final Mission Bay Subsequent Environmental Impact Report." San Francisco Planning Department, September 17, 1998, available at: <http://www.sfocii.org/index.aspx?page=61>



## Cumulative Analysis Omits Excess Cancers Caused by Regional TAC Sources

The SEIR states that it relies upon a radius of 1,000 feet from the Project fence line to assess cumulative risk (p. 5.4-17, 5.4-50, 5.4-56). This buffer distance is consistent with BAAQMD guidance,<sup>4</sup> which requires the consideration of all “sources within 1,000 foot radius” when determining cumulative health risk impacts.<sup>5</sup> The DSEIR also notes that this buffer distance is consistent with studies conducted by the California Air Resources Board (CARB), in which it found “ground-level TAC emissions to return to background levels” at a distance beyond 1,000 feet (p. 5.4-56).<sup>6</sup> However, regardless whether a particular source attenuates at 1,000 feet, it is improper to ignore regional transport of TACs from sources beyond 1,000 feet where there is evidence that the combined effect of those sources would result in a substantial increase in cancer risk. Ignoring material levels of regional TAC sources that are generated from multiple sources beyond 1,000 feet results in a failure to assess the actual excess cancers attributable to all cumulative sources of TACs. Because the SEIR does in fact ignore the excess cancers attributable to regional or global background TACs, cumulative health risk impacts at the Project site are greatly underestimated.

The SEIR utilizes risk values from a local-scale citywide modeling effort conducted in 2012 to represent background ambient risk at the Project site (DSEIR p. 5.4-11 to 12), and then combines the Project’s health risk with this “background” risk to determine whether or not the Project would have a cumulatively considerable impact (DSEIR, App. AQ, Table 6.1-8; FSEIR, App. AQ2, Refined Table 6.1-8). This citywide model, however, is not representative of ambient background risks, as it only takes into account risk from local emission sources. According to *The San Francisco Community Risk Reduction Plan: Technical Support Documentation*, which describes the methods and specific emission sources used within this model, “...the dispersion modeling, from which the maps are derived, produced concentrations and risk estimates from direct emissions. The maps themselves therefore portray concentrations of directly emitted PM2.5 and cancer risk associated with directly emitted TAC at locations near the sources of these emissions. The results do not reflect regional or long-range transport of air pollutants. Nor do they include the effects of the chemical transformation (formation or loss) of pollutants.”<sup>7</sup> As such, the “background” risk used by the SEIR, in combination with the Project-specific risk, does not accurately represent the cumulative risk within the Project area.

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<sup>4</sup> “California Environmental Quality Act Air Quality Guidelines.” BAAQMD, May 2011, p. 5-15

“The risk and hazards analysis for assessing potential cumulative impacts should follow the risk screening guidance described in *Recommended Methods for Screening and Modeling Local Risks and Hazards*...”

<sup>5</sup> “Recommended Methods for Screening and Modeling Local Risks and Hazards.” BAAQMD, May 2011, *available at*:

<http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20Modeling%20Approach.aspx?la=en>, p. 6

<sup>6</sup> See also California Environmental Quality Act Guidelines Update, Proposed Thresholds of Significance, May 3, 2010, BAAQMD, pp.41, 43 (finding that TAC concentrations from identified sources approach background levels at 1,000 feet).

<sup>7</sup> “The San Francisco Community Risk Reduction Plan: Technical Support Documentation.” BAAQMD, December 2012, *available at*:

[http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2012\\_12\\_BAAQMD\\_SF\\_CRRP\\_Methods\\_and\\_Findings\\_v9.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Findings_v9.pdf), p. 37



The DSEIR attempts to justify limiting cumulative sources to those generated within 1,000 feet, stating that because “the contribution of project emissions would be greatly dispersed through both distance and intervening structures...their contribution would be expected to be minimal” (p. 5.4-56). This statement, however, addresses only the dispersal of a particular project’s emissions and the attenuated effect of that particular project on receptors beyond 1,000 feet. The statement provides no justification for ignoring the combined effects of multiple projects that may have impacts at a particular location even if they are not within 1,000 feet of the Project site. Considering such effects is one of the purposes of a cumulative analysis.

Other air districts, such as the South Coast Air Quality Management District (SCAQMD), and CARB recognize the importance of considering regional transport of TACs in cumulative analysis. According to CARB’s *Air Quality and Land Use Handbook: A Community Health Perspective*, (“Land Use Handbook”), “The broad concept of cumulative air pollution impacts reflects the combination of regional air pollution levels and any localized impacts. Many factors contribute to air pollution levels experienced in any location. These include urban background air pollution, historic land use patterns, the prevalence of freeways and other transportation corridors, the concentration of industrial and commercial businesses, and local meteorology and terrain.”<sup>8</sup> The Land Use Handbook continues on to state, “Urban background levels are a major contributor to the overall risk from air toxics in urban areas...When localized elevated air pollutant levels were measured, they were usually associated with local ground-level sources of toxic pollutants. The most common source of this type was busy streets and freeways. The impact these ground-level sources had on local air quality decreased rapidly with distance from the source. Pollutant levels usually returned to urban background levels within a few hundred meters of the source. These results indicate that tools to assess cumulative impacts must be able to account for both localized, near-source impacts, as well as regional background air pollution.”<sup>9</sup> Therefore, it is extremely important that “both localized, near-source impacts, as well as regional background air pollution” be considered when assessing cumulative health risk impacts.

Simply because emission concentrations from individual sources significantly decrease with distance does not mean that these sources do not contribute to overall risk from air toxics in urban areas. As is explained in SCAQMD’s *Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds*, “When fugitive dust enters the atmosphere, the larger particles of dust typically fall quickly to the ground, but smaller particles less than 10 microns in diameter may remain suspended for longer periods, giving the particles time to travel across a regional area and affecting receptors at some distance from the original emissions source. Fine PM2.5 particles have even longer atmospheric residency times.”<sup>10</sup> Since diesel exhaust particulate matter, a known toxic air contaminant (TAC), is composed of

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<sup>8</sup> “Air Quality and Land Use Handbook: A Community Health Perspective.” CARB, April 2005, *available at*: <http://www.arb.ca.gov/ch/handbook.pdf>, p. 39

<sup>9</sup> “Air Quality and Land Use Handbook: A Community Health Perspective.” CARB, April 2005, *available at*: <http://www.arb.ca.gov/ch/handbook.pdf>, Appendix C, p. C-3

<sup>10</sup> “Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds.” SCAQMD, October 2006, *available at*: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance->



both coarse (PM10) and fine particulate matter (PM2.5), impacts from regional, long-transporting PM should have been included in the SEIR's cumulative health risk assessment.<sup>11</sup>

There is evidence to further support our conclusion that regional sources contribute substantially to background health risks, and that health risk from these regional sources were not included in the SEIR's cumulative analysis. First, the DSEIR states that "the 100 per million excess cancer cases is...consistent with the ambient cancer risk in the most pristine portions of the Bay Area based on BAAQMD regional modeling," which suggests that the regional contribution to background excess cancers at the Project site would, at the very least, be equal to approximately 100 in one million (p. 5.4-13). Furthermore, the FSEIR states that this background excess cancer risk is due to globally transported TACs (p. 13.13-27). Therefore, if the health risk from both regional and local sources were included in the SEIR's cumulative impact assessment, contributions from background sources alone would exceed the 100 in one million threshold. Since this is not the case with regards to the SEIR's analysis, it is clear that regional sources were not included.

Second, although the citywide model did not include health risk impacts from regional sources, the model did disclose a substantial citywide background concentration of PM2.5 from non-local sources.<sup>12</sup> This background PM2.5 concentration was determined by measuring the actual PM2.5 concentrations at each monitoring station, and then by subtracting the modeled PM2.5 concentrations from the measured value. This resulted in a regional background PM2.5 value of 8.06 µg/m<sup>3</sup>, which is an order of magnitude higher than the modeled PM2.5 values, which, on average, were equal to approximately 0.55 µg/m<sup>3</sup>. Based on the relation of modeled PM2.5 to measured PM2.5, it is evident that actual concentrations of PM2.5 are primarily derived from regional or global sources, not from local sources.. Diesel Particulate Matter (DPM), which is a known TAC, is largely composed of fine particulate matter (PM2.5); thus PM2.5 can be used as a proxy for DPM in health risk assessments. Based on the high levels of measured PM2.5 that are not accounted for in the local citywide model, we conclude that there may be substantial sources of regional DPM that are not accounted for.

Again, it is important to note that the citywide model used to determine Air Pollution Exposure Zones did not include the health risks from regional emission sources:

When discussing the maps and drawing conclusions from them, it is important to consider what they portray and how they were produced. Specifically, the dispersion modeling, from which the maps are derived, produced concentrations and risk estimates from direct emissions. The maps

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[thresholds/particulate-matter-\(pm\)-2.5-significance-thresholds-and-calculation-methodology/final\\_pm2\\_5methodology.pdf?sfvrsn=2](http://www.arb.ca.gov/research/diesel/diesel-health.htm)

<sup>11</sup> Background on Diesel Health Effects, CARB, June 21, 2011, *available at*:

<http://www.arb.ca.gov/research/diesel/diesel-health.htm>

<sup>12</sup> "The San Francisco Community Risk Reduction Plan: Technical Support Documentation." BAAQMD, December 2012, *available at*:

[http://www.gsweventcenter.com/Draft\\_SEIR\\_References%5C2012\\_12\\_BAAQMD\\_SF\\_CRRP\\_Methods\\_and\\_Finding\\_s\\_v9.pdf](http://www.gsweventcenter.com/Draft_SEIR_References%5C2012_12_BAAQMD_SF_CRRP_Methods_and_Finding_s_v9.pdf), p. 37



themselves therefore portray concentrations of directly emitted PM<sub>2.5</sub> and cancer risk associated with directly emitted TAC at locations near the sources of these emissions. The results do not reflect regional or long-range transport of air pollutants. Nor do they include the effects of the chemical transformation (formation or loss) of pollutants.

The modeling results, in particular maps of impacts of all sources combined, are intended to aid local planning efforts by identifying areas where emission reductions or other efforts may be implemented to help protect current and future residents from major local sources of air pollution. Impacted areas were identified by comparing modeled results of local contributions to CRRP thresholds. For cancer risk, this local contribution was used directly for comparison to a CRRP threshold. For PM<sub>2.5</sub>, the local contribution was added to a background concentration for comparison to a CRRP threshold.

To estimate the background concentration of PM<sub>2.5</sub>, monitored levels from six locations (Figure 10) were compared to the value predicted from dispersion modeling for the base year (2010) at those locations. Monitoring data from a special study conducted in 2008 were used along with routinely collected data from the BAAQMD routine monitoring site at the Arkansas Street site for the same year.

**Table 14.** Measured and modeled PM<sub>2.5</sub> concentrations (µg/m<sup>3</sup>) and their differences at San Francisco monitoring sites.

Monitoring Location	Measured Value (µg/m <sup>3</sup> )	Modeled Value (µg/m <sup>3</sup> )	Difference (µg/m <sup>3</sup> )
BAAQMD Arkansas St	9.10	0.88	8.22
SFDPH Arkansas St	8.90	0.88	8.02
Southeast Community Center	9.30	0.84	8.46
Muni Maintenance Yard	8.90	0.44	8.46
Potrero Recreation Center	7.60	0.21	7.39
Malcolm X Academy	7.90	0.06	7.84
<b>Average Difference</b>			<b>8.06</b>

The average difference between the monitored and modeled values (8.06 µg/m<sup>3</sup>; Table 14) was used as the citywide ambient level for PM<sub>2.5</sub>. This difference was added to the predicted value at each receptor site for comparison to the CRRP threshold for PM<sub>2.5</sub>.<sup>13</sup>

In sum, the SEIR omits regional sources of TACs in its cumulative health risk assessment. This omission is material because regionally or globally transported TACs substantially contribute to health risk impacts. As such, the SEIR's cumulative health risk assessment is not representative of all cumulative sources, as the background health risks relied upon only account for local sources.

<sup>13</sup> *Id.*



## Failure to Utilize Values from Updated Health Risk Assessment Guidelines

As comments on the DSEIR objected, the DSEIR failed to incorporate recommended age specific inhalation rates set forth by OEHHA in their 2012 and 2015 guidance into their health risk assessment. We discussed the consequences of this failure in our November 2 letter; however, we relied upon information from the DSEIR's outdated health risk assessment. Therefore, in an effort to determine if this same conclusion can be made with regard to the new health risk assessment provided in the FSEIR, we reviewed that updated health risk assessment.

Review of both health risk assessments demonstrates that the DSEIR and the FSEIR fail to use these updated age-specific breathing rates for children and infants in their health risk assessments, and as a result, the Project's health risk impacts are greatly underestimated. We maintain that prior to certification of the FSEIR an updated health risk assessment should be prepared to include these updated values.

As was discussed in our November 2 letter, we conducted a simple analysis in an effort to demonstrate the effect that use of these updated breathing rates can have on estimated health risk values. Our analysis demonstrated that if all other exposure variables are held constant, the use of current recommended breathing rates would nearly double a child resident's health risk, when compared to a health risk that uses outdated breathing rates, such as in the DSEIR and FSEIR. This simple analysis did not use site specific information, and was intended to provide an example of the effect that adjustments to this critical parameter can have on health risk. In an effort to provide a more site-specific assessment, we conducted an additional analysis, as discussed herein.

The FSEIR uses the following default values and input parameters to estimate health risk (Volume 6, Table 6.1-7, pp. 411).

Exposure Parameter			Child Resident		Adult Resident		Hospital Child	
Units			Construction	Operation	Construction	Operation	Construction	Operation
DBR	Daily Breathing Rate	L/kg-day	581	302	302	302	581	581
ET	Exposure Time	hrs/24 hrs	1	1	1	1	1	1
EF	Exposure Frequency	days/year	350	350	350	350	365	365
ED	Exposure Duration	years	2	70	2	70	1	1
AT	Averaging Time	days	25550	25550	25550	25550	25550	25550
IF	Intake Factor	(m <sup>3</sup> /kg-day)	0.016	0.290	0.0083	0.290	0.0083	0.0083
ASF	Age Sensitivity Factor	-	10	1.7	1	1	10	10
MAF	Modeling Adjustment Factor	-	-	-	-	-	-	-

While the old OEHHA guidance allowed for only one breathing rate for a child (581 L/kg-day), and one breathing rate for an adult (302 L/kg-day), the updated OEHHA guidance requires that different



breathing rates be used for an infant from ages zero to two (1090 L/kg-day), for a child from ages two to sixteen (745 L/kg-day), and for an adult from ages sixteen to seventy (290 L/kg-day) (see table below).<sup>14</sup>

**Table 3.1. Recommended Point Estimates for Long-Term Daily Breathing Rates**

	3 <sup>rd</sup> Trimester	0<2 years	2<9 years	2<16 years	16<30 years	16<70 years
<b>L/kg-day</b>						
Mean	225	658	535	452	210	185
95th Percentile	361	1090	861	745	335	290
<b>m<sup>3</sup>/day</b>						
Mean	15.3	6.2	10.7	13.3	15.0	13.9
95th Percentile	23.4	11.2	16.4	22.6	23.5	22.9

Furthermore, the updated OEHHA guidance requires that an age sensitivity factor (ASF) of 10 be used for infant exposures, and an ASF of 3 be used for child exposures. Therefore, using these updated breathing rates and age sensitivity factors, calculating and summing age specific risks for each age bracket, and using the FSEIR's other exposure parameters as listed in the table above, we estimated the following project-specific health risk (see table below).

<b>Total Project Cancer Risk</b>	<b>Child Resident</b>	<b>Adult Resident</b>	<b>Hospital Child</b>
FSEIR Assessment	18	8	12
BAAQMD Threshold	10	10	10
<b>Exceed?</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>
SWAPE Assessment	31	11	17
BAAQMD Threshold	10	10	10
<b>Exceed?</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
Percent Increase	71%	42%	45%

As you can see, when age specific breathing rates from the updated OEHHA guidance are used, the Project's health risk increases by as much as 71 percent.<sup>15</sup> Furthermore, the adult resident health risk increases from 8 in one million to 11 in one million, which exceeds the 10 in one million threshold. By relying upon outdated breathing rates, the FSEIR is greatly underestimating the Project's health risk.

<sup>14</sup> "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessment." Office of Environmental Health Hazard Assessment, February 2015, available at:

[http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html)

<sup>15</sup> We calculated a 70-year health risk in an effort to demonstrate the effects of the updated breathing rates compared to the breathing rates used in the FSEIR. When a 30-year exposure duration is used, as is recommended in the updated OEHHA guidance, changes to the health risk are negligible. For example, the health risk for a child resident for a 70-year exposure is 31 in one million and for a 30-year exposure is 30 in one million. Similarly, the adult resident health risk is 11 in one million for both exposure durations. This is due to the adjustment in breathing rates between the 16 to 30 year age bracket (335 L/kg-day) and the 16 to 70 year age bracket (290 L/kg-day).



We were unable to conduct an updated cumulative analysis due to lack of data available to us. As previously discussed, the background risks used in the SEIR were taken from a citywide modeling effort. However, neither the DSEIR nor the FSEIR provide the annual average concentrations these background risks were derived from. According to the FSEIR, the methods used in this citywide model follow “BAAQMD’s existing health risk assessment methodology protocols,” which means that the background risks were estimated using the same outdated breathing rates as the FSEIR (p. 13.13-50). Furthermore, the FSEIR relies upon the BAAQMD County Surface Street Screening Tables for San Francisco County to estimate emissions from mobile sources (Volume 6, Table 6.1-4, pp. 408). Similar to the citywide model, this screening tool also estimates a 70-year cancer risk using these outdated breathing rates. As such, the cancer risk from these mobile sources is also likely to increase when updated breathing rates are applied.

Even though we were unable to conduct a cumulative health risk assessment, our analysis demonstrates that when these updated breathing rates are applied, the health risk at each sensitive receptor substantially increases. As a result, when the background risk and risk from mobile-sources are estimated using OEHHA’s updated breathing rates, the cumulative risk at each sensitive receptor location will substantially increase, which may result in an exceedance of the 100 in one million cumulative health risk threshold.

## Unjustified Rejection of Pier 80 Alternative Site Based on Health Risks

The Mission Bay Alliance submitted comments in which they identified an alternative site located near San Francisco’s Pier 80 that would both meet fundamental Project objectives and substantially reduce environmental impacts. The Project’s CEQA findings reject this site. The rejection is based in part on the finding that, because the MBA Alternative Site is located in an Air Pollution Exposure Zone, it would result in substantially more severe air quality health risk impacts than the Project.

Our analysis, based on available data from the City of San Francisco, demonstrates the contrary. Specifically, we evaluated the health risk impacts of the alternative location, and compared them to Project location’s impacts, as proposed in the FSEIR. Our findings demonstrate that the health risk impacts at the alternative location would be substantially less when compared to the health risk impacts at the proposed Project site.

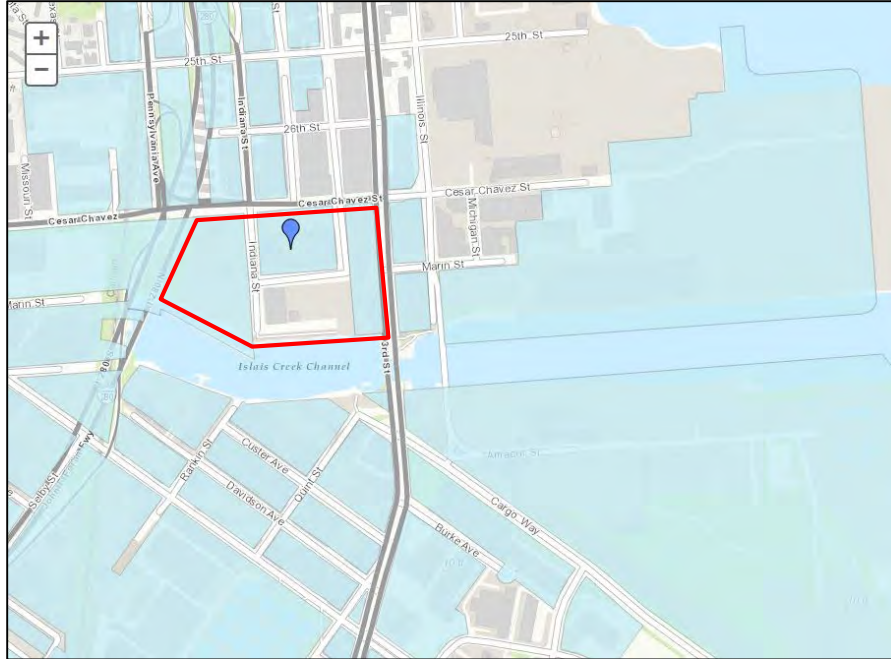
The alternative location identified by the Mission Bay Alliance is an approximately 21-acre site located just east of Pier 80. Consistent with the methods used in the FSEIR to determine health risk impacts, we determined what portion of the Project site was located within an Air Pollutant Exposure Zone (APEZ). Using the San Francisco Property Information Map<sup>16</sup> we found that approximately 75 percent of this site is located within an APEZ (see figure below).<sup>17</sup>

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<sup>16</sup> San Francisco Property Information Map, available at: <http://propertymap.sfplanning.org/?dept=planning>

<sup>17</sup> Parcels located within an APEZ are highlighted in blue, and the alternative site is outlined in red in the figure below.





Even though the alternative site would place some portion of the Project within an APEZ, it is still the superior option when compared to the currently proposed location for several reasons.

First, the entire site is not located within an APEZ. Of the 21-acre site, approximately 15 acres are within an APEZ, and approximately 6 acres are not within an APEZ. The Project is much smaller than the alternative location, only taking up a portion of the site. For example, the arena would only require 7 acres of the 21-acre site. Therefore, if placed strategically, only a fraction of the arena would need to be located within an APEZ. The figure below demonstrates how this could be achieved.





Second, although the Project would be located within an APEZ at this alternative site, it would not be required to comply with the enhanced ventilation requirements set forth by Article 38, as it is not a sensitive use development.<sup>18</sup> The purpose of Article 38 is to protect the public health and welfare by establishing an Air Pollutant Exposure Zone and imposing an enhanced ventilation requirement for all urban infill sensitive use development within the Air Pollutant Exposure Zone. Sensitive use developments are defined as any building or facility designed for residential use, or any facility containing child daycares, schools, and hospitals.<sup>19</sup> Using this definition, the Project is not considered to be a sensitive use development, and as such, is not subject to the enhanced ventilation requirement under Article 38.

This conclusion is further supported by the San Francisco Planning Department. According to a July 29, 2015 Preliminary Project Assessment, when a “project site is located within an Air Pollutant Exposure Zone, as mapped and defined by Health Code, Article 38... Should the proposed project include new sensitive land uses (for example, day care facilities), those facilities would be subject to the requirements of Health Code Article 38.”<sup>20</sup>

In addition to the enhanced ventilation requirement, projects located within an Air Pollutant Exposure Zone would also need to: (1) require that all stationary sources (i.e. backup diesel generators) meet Tier

<sup>18</sup> Article 38 of the San Francisco Health Code, available at: <https://www.sfdph.org/dph/EH/Air/Article38.asp>

<sup>19</sup> Article 38, Section 3804, available at:

[http://library.amlegal.com/nxt/gateway.dll/California/health/article38enhancedventilationrequiredforu?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:sanfrancisco\\_ca](http://library.amlegal.com/nxt/gateway.dll/California/health/article38enhancedventilationrequiredforu?f=templates$fn=default.htm$3.0$vid=amlegal:sanfrancisco_ca)

<sup>20</sup> Preliminary Project Assessment, San Francisco Planning Department, July 29, 2015 available at: <http://www.sf-planning.org/ftp/files/notice/2015-004256PPA.pdf>



4 requirements, and (2) quantify and minimize construction emissions. According to the FSEIR, the proposed diesel generators will already meet these Tier 4 requirements (p. 14-118). Furthermore, the FSEIR is proposing to implement multiple mitigation measures, such as the use of Tier 2 off-road equipment, to minimize construction emissions (p. 14-120). Therefore, relocating the Project at this alternative site would not require implementation of additional mitigation measures.

Third, because the proposed land uses would be farther from sensitive receptors, the MBA Alternative Site would reduce health risk impacts caused by the Project itself compared to the preferred location. The Project would generate new sources of toxic air contaminants including, diesel generators, on-road vehicles, and off-road equipment. Since the Project does not propose to locate sensitive receptors on-site, it would not expose on-site sensitive receptors to toxic air contaminants. Accordingly, we assessed the impacts to existing and foreseeable future off-site receptors. Based on the San Francisco July 2015 Zoning Map, the majority of the areas surrounding the alternative Project site are zoned for industrial, commercial, and other non-residential uses (see figure below).<sup>21, 22</sup>



<sup>21</sup> San Francisco Zoning Map, July 2015, available at: <http://www.sf-planning.org/modules/showdocument.aspx?documentid=9016>

<sup>22</sup> The parcels colored in dark blue are zoned as Production, Distribution, and Repair Districts (PDR). According to Section 210.7 of Article 2 of the San Francisco Planning Code, PDR “districts provide space for a wide variety of PDR (production, distribution and repair) and other non-residential activities in districts where these uses are free from inherent economic and operational competition and conflicts with housing, large office developments, and large-scale retail, which are not permitted in these districts.”



As a result, there should be few, if any, sensitive receptors permitted in the future within the vicinity of this alternative site because residential use is not permitted. We relied upon resources provided by the San Francisco Planning Department to determine if there were existing sensitive receptors within the area. Utilizing the same 1,000-foot zone of influence as the FSEIR to assess health risks from Project emissions, we identified two sensitive receptors: (1) the Rise Institute approximately 760 feet northwest of the site; and (2) an affordable housing development approximately 1,020 feet north of the site (see figure below).

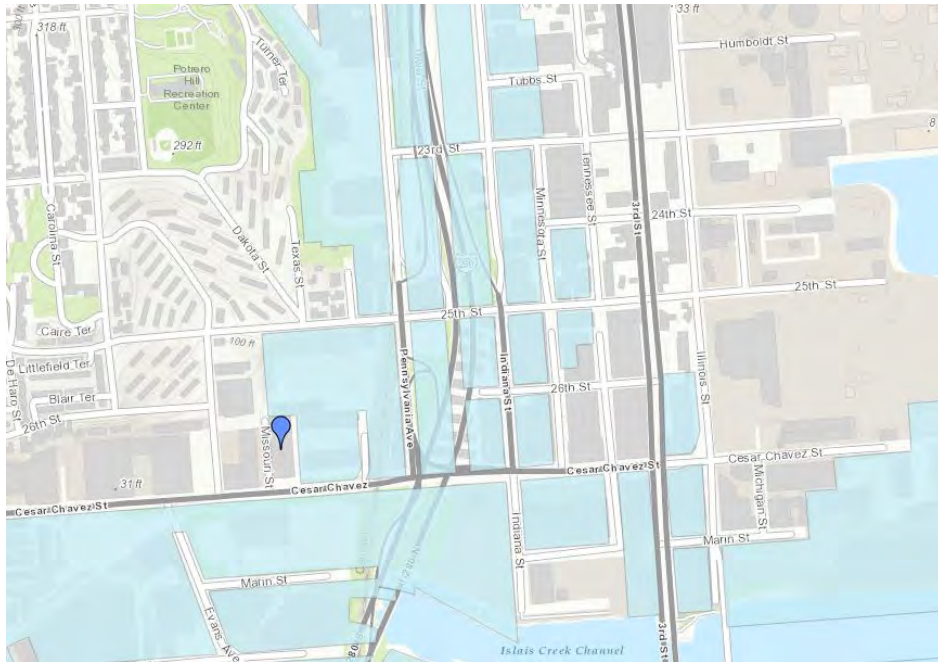


It should be noted that the two identified sensitive receptors would only be within or close to 1,000 feet of the alternative site if the Project were built directly adjacent to Interstate 280, which would most likely not occur. As demonstrated in the figure below, when a 1,000 foot radius is taken from the center of the site, both of the identified sensitive receptors are well out of range of the alternative site, with the Rise Institute approximately 1,600 feet away, and the affordable housing development approximately 1,800 feet away.









Thus, based on the SEIR's own approach to determining significance, there would be no significant impact to this receptor from the Project. Due to lack of available data, we were unable to conduct a full, site-specific health risk assessment to determine health risk impact values at this alternative location. However, even without a health risk assessment, based on the location of sensitive receptors and the APEZ we can still conclude that, when compared to the current Project site, the proposed alternative site would have a substantially reduced health risk impact.

Sincerely,

Paul Rosenfeld

Paul Rosenfeld, PhD

JJ

Jessie Jaeger



## EXHIBIT 2





## **DRAFT ENVIRONMENTAL IMPACT REPORT**

# **801 Brannan and One Henry Adams Streets Project**

PLANNING DEPARTMENT CASE NO. 2000.618E

STATE CLEARINGHOUSE NO. 2003112070

Draft EIR Publication Date:

**June 22, 2011**

Draft EIR Public Hearing Date:

**July 28, 2011**

Draft EIR Public Comment Period:

**June 23, 2011 – August 8, 2011**



**SAN FRANCISCO  
PLANNING  
DEPARTMENT**

*Written comments should be sent to:*

Environmental Review Officer | 1650 Mission Street, Suite 400 | San Francisco, CA 94103



## IMPACTS

Air quality impacts from land development projects result from project construction and operation. Construction emissions, primarily dust generated by earthmoving activities and criteria air pollutants emitted by construction vehicles, would have a short-term effect on air quality. Operational emissions, generated by project-related traffic and by combustion of natural gas for building space and water heating, would continue to affect air quality throughout the lifetime of the project.

### Significance Criteria

A project would have a significant air quality effect on the environment if it were to:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria air pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

As stated above, in 2010 BAAQMD adopted new significance thresholds for air quality for CEQA analysis. Under the new BAAQMD *CEQA Air Quality Guidelines* and thresholds,<sup>158</sup> the significance thresholds for criteria air pollutant emissions from project construction and operations have generally been lowered. The new thresholds are as follows: for ROG, NOx, and PM2.5, a net increase of 54 pounds per day or 10 tons per year (tpy) would be considered significant, while for PM10, a net increase of 82 pounds per day or 15 tpy would be considered significant. For CO, an increase would be considered significant if it leads to or contributes to CO concentrations exceeding the State Ambient Air Quality Standard (SAAQS). Quantification of the CO concentrations would not be required if a project is consistent with the local congestion management program and plans, and if traffic volumes at affected intersections are below 44,000 vehicles per hour, or below 24,000 vehicles per year in tunnel-like conditions. For construction-period impacts, the same thresholds apply for ROG, NOx, PM2.5, and PM10, except that the thresholds for PM2.5 and PM10 apply only to exhaust emissions. There are no quantitative thresholds for construction dust emissions; instead, impacts are considered less than significant if the

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<sup>158</sup> BAAQMD, *California Environmental Quality Act (CEQA) Air Quality Guidelines*, June 2010; and adopted Thresholds of Significance, June 2010. Available online at <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx>, accessed May 2, 2011.



BAAQMD Best Management Practices are employed to control dust during construction activities, including demolition and excavation.

BAAQMD considers projects that exceed these criteria air pollutant standards also to result in a cumulatively considerable air quality impact upon the region. According to BAAQMD, no further cumulative analysis should be required beyond the analysis of whether a proposed project's impacts would contribute considerably to ambient levels of pollutants or GHGs,<sup>159</sup> with the exception of the following cumulative risk and hazard analysis for toxic air contaminants.

For health risks and hazards resulting from emissions of toxic air contaminants, BAAQMD recommends either that a project be found to be in compliance with a "qualified community risk reduction plan," or that significance thresholds be used for both construction and operational emissions based on commonly used standards employed in health risk assessment. The following are thresholds for project-specific impacts: (1) an increase in lifetime cancer risk of 10 chances in one million, (2) an increase in the non-cancer risk equivalent to a chronic or acute "Hazard Index" greater than 1.0,<sup>160</sup> or (3) an increase in the annual average concentration of PM<sub>2.5</sub> in excess of 0.3 micrograms per cubic meter. BAAQMD also recommends cumulative thresholds of 100-in-one-million cancer risk, a Hazard Index greater than 10.0, and a PM<sub>2.5</sub> concentration greater than 0.8 micrograms per cubic meter. Unlike the volume-based thresholds for criteria air pollutants noted above, the toxic air contaminant thresholds are used for specific receptor locations when a risk analysis is required for specific project components, such as stationary sources (common in industrial operations) or the use of diesel-powered equipment, including construction equipment.

## Approach to Analysis

The URBEMIS model was used to determine the proposed project's criteria air pollutant emissions as well as those from the two variants. A Health Risk Assessment was also conducted to determine if the proposed project would expose sensitive receptors to substantial levels of pollution. The results of these analyses are presented in an Air Quality Technical Report for this project (AQTR).<sup>161</sup> This methodology section summarizes the approaches, while more detail is provided in the impact analysis.

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<sup>159</sup> *Ibid.*

<sup>160</sup> Hazard Index represents the ratio of expected exposure levels to an acceptable reference exposure levels.

<sup>161</sup> Donald Ballanti, Certified Consulting Meteorologist, *Air Quality Impact Report and Health Risk Assessment for the 801 Brannan and One Henry Adams Project* (AQTR), San Francisco, March 4, 2011, p. 4-5. This analysis is available for public review at the San Francisco Planning Department, 1650 Mission Street, Fourth Floor, San Francisco as part of Case File 2000.618E.



- All contractors shall use equipment that meets ARB's most recent certification standard for off-road heavy-duty diesel engines.

The implementation of **Mitigation Measure M-AQ-7** could potentially reduce the construction health risk impacts. However, the effectiveness of these mitigation measures in reducing health risks is unknown at this time. Since it cannot be stated with certainty that cancer risk, non-cancer, or PM2.5 concentrations would be reduced to below the BAAQMD-recommended significance thresholds, this impact is conservatively judged as *significant and unavoidable with mitigation* for the proposed project, or either variant.

**Impact AQ-8: Operation of the proposed project, or either variant, would expose sensitive receptors to substantial levels of air pollutants from roadway mobile sources and stationary sources, including PM2.5 and other TACs associated with cancer, and non-cancer health risks, which would exceed the BAAQMD project-level cancer risk threshold of significance of 10 in one million. (Significant and Unavoidable)**

#### *Mobile Sources*

As discussed above, proximity to high traffic volume roadways creates exposure to toxic air contaminants. A Health Risk Assessment was conducted for the project and its variants to determine if the proposed project, or either variant, would expose sensitive receptors to substantial levels of pollution.<sup>169</sup> Mobile-source diesel particulate, PM2.5 and TOG (Total Organic Gases) concentrations on the two project sites were evaluated with the EPA approved dispersion model CAL3QHCR. The definition of links and traffic volumes were identical to those used by the San Francisco City and County Department of Public Health's preliminary analysis of mobile-source particulate impacts. The model was run on one year of meteorological data provided by the Bay Area Air Quality Management District from the Mission Bay monitoring site in San Francisco. Vehicle volumes from the SF CHAMP traffic model maintained by the San Francisco County Transportation Agency were used. Emission factors were determined using the CT-EMFAC program, the California Department of Transportation's emission model, for the County of San Francisco. Emission factors assumed a 2012 vehicle mix, which is conservative since construction ends in 2014.

#### *Permitted Stationary Sources*

The vicinity of the two project sites includes a number of existing sources of air pollutants. There are 21 sources of air pollutants permitted by the BAAQMD within the project sites' zone of influence for air

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<sup>169</sup> Donald Ballanti, AQTR, *op. cit.*



quality analysis (1,000-ft). Based on toxic risk screening using data mandated by the BAAQMD, 10 permitted sources (backup diesel generators) in the project sites' zone of influence have associated cancer risk values greater than the individual source threshold of 10 in one million, the BAAQMD TAC screening level. For the 10 permitted sources that failed the screening procedure, the ISCST-PRIME air pollution model was used to analyze the impacts of these 10 permitted sources on the new residences at the two project sites.<sup>170</sup> Actual locations of the permitted sources were determined during a field reconnaissance.<sup>171</sup> Two sources at the San Francisco Hall of Justice/County Jail complex could not be located so they were, as a worst-case assumption, assumed to be as located at the point of minimal distance to the project sites (i.e., at the southwest corner of that parcel). All sources utilized BAAQMD default stack parameters. Building wake effects were included. The ISCST-PRIME model was run for the same ground-based receptors defined for the CAL3QHCR model. The program was run on the same weather file used for the CAL3QHCR program. For all other permitted sources, BAAQMD permit HRAs, adjusted screening values or unadjusted screening values for cancer risk, non-cancer health hazards and PM<sub>2.5</sub> concentration were used to assess health effects.

#### *Health Risk Assessment for Mobile and Stationary Sources*

The modeling procedures described above provided TOG, diesel PM and PM<sub>2.5</sub> concentrations separately for mobile sources and for 10 permitted stationary sources (diesel generators) that were modeled using the ISCST-PRIME model. The risk components for each TAC were computed for each receptor point. The BAAQMD's screening cancer risk values for permitted sources not modeled were summed and added to the calculated risk for each receptor point. Data are shown for the receptor at each site with the maximum cancer risk for each source type (roadway or point source).

The BAAQMD *CEQA Guidelines* provide that a project would have a project-level significant air quality impact if any of the following thresholds to be exceeded:

1. Expose sensitive receptors to substantial levels of TACs such that the probability of contracting cancer for the maximally exposed individual (MEI) exceeds 10 in one million from an individual source within the 1,000-foot zone of influence.
2. Expose sensitive receptors to TACs from an individual source within the 1,000-foot zone of influence such that a non-cancer Hazard Index of 1.0 would be exceeded.
3. Expose sensitive receptors to, or incrementally increase localized annual average concentrations of PM<sub>2.5</sub> exceeding 0.3 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

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<sup>170</sup> *Ibid.*

<sup>171</sup> Donald Ballanti site reconnaissance on December 6, 2010.



BAAQMD also recommends cumulative thresholds of 100-in-one-million cancer risk, a Hazard Index greater than 10.0, and a PM<sub>2.5</sub> concentration greater than 0.8 micrograms per cubic meter from all sources within the zone of influence for those receptors within 1,000 feet of the project site. (Cumulative Roadways plus Cumulative Point Sources).

#### *Particulate Matter (PM<sub>2.5</sub>)*

Maximum predicted PM<sub>2.5</sub> concentrations at the 801 Brannan site and One Henry Adams site are shown in Table 21 on the following page. The data in Table 21 is for Receptor 11, located at the Eighth Street/ Brannan Street corner of the project site. Cumulative roadway concentrations represent the contribution of traffic within roughly 1,000 feet of the site.

#### 801 Brannan Site

Table 21 indicates that the individual source project-level threshold of significance for PM<sub>2.5</sub> would be exceeded at the 801 Brannan site by the contribution from the I-80 Freeway directly west of the project site, with a concentration of 0.33 µg/m<sup>3</sup>. All other roadways would be below the 0.3 µg/m<sup>3</sup> standard. The cumulative concentration of PM<sub>2.5</sub> from all point sources in the project vicinity is below the 0.3 µg/m<sup>3</sup> threshold.<sup>172</sup> Because at least one of the PM<sub>2.5</sub> thresholds of significance would be exceeded at the 801 Brannan site, the proposed project, or either variant, would have a significant PM<sub>2.5</sub> TAC impact as stated in the summary statement above, Impact AQ-8: Operational Health Risk – TACs, including PM<sub>2.5</sub>.

#### One Henry Adams Site

Table 21 on the following page indicates that the individual source project-level threshold of significance for PM<sub>2.5</sub> concentration would not be exceeded at the One Henry Adams site under the proposed project, or either variant. Therefore, sensitive receptors at the One Henry Adams site would not be exposed to elevated levels of PM<sub>2.5</sub>. None of the individual roadways near the site was found to exceed the project-level 0.3 µg/m<sup>3</sup> threshold. The cumulative PM<sub>2.5</sub> concentration of 0.369 would not exceed the cumulative threshold of significance of 0.8 µg/m<sup>3</sup>.<sup>173</sup> Therefore, PM<sub>2.5</sub> thresholds of significance would not be exceeded at the One Henry Adams site, and there would be no health risk impacts from exposure to PM<sub>2.5</sub> at the One Henry Adams site.

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<sup>172</sup> Donald Ballanti, AQTR, *op. cit.*

<sup>173</sup> *Ibid.*



Table 21 PM2.5 Concentrations			
Source	Concentration ( $\mu\text{g}/\text{m}^3$ )	Threshold ( $\mu\text{g}/\text{m}^3$ )	Exceeds Threshold
<b>801 Brannan site</b>			
Cumulative Roadway	0.42	0.8	No
Individual Roadways > 0.3: I-80 (only exceedance)	0.33	0.3	Yes
Cumulative Point Sources	0.12	0.3	No
Individual Point Sources > 0.3: (no exceedances)	na	0.3	na
Total Cumulative PM2.5 (Cumulative Roadways + Cumulative Point Sources)	0.525	0.8	No
<b>One Henry Adams site</b>			
Cumulative Roadway	0.27	0.8	No
Individual Roadways > 0.3: (no exceedances)	None	0.3	na
Individual Point Sources > 0.3: (no exceedances)	None	0.3	na
Cumulative Point Sources	0.373	0.8	No

Source: Donald Ballanti, *Air Quality Impact Report and Health Risk Assessment for the 801 Brannan/One Henry Adams Project* (AQTR), San Francisco, March 2011, Tables 3 and 4.

### Cancer and Non-Cancer Health Risks

Tables 22 and 23 on the following pages provide a summary of the results for cumulative and individual source of cancer and non-cancer health risks at the 801 Brannan and One Henry Adams sites, respectively. Cancer risks related to roadway sources are due to exposure to diesel particulate and TOG from vehicle exhaust. Point source cancer risks are almost exclusively due to exposure to diesel particulate emissions from back-up generators. Cumulative roadway cancer and non-cancer risks are based on CAL3QHCR modeling of emissions from nearby roads and freeways. The contributions of individual roads were also examined to determine which exceed the individual source thresholds. Cumulative point source cancer and non-cancer risks are based on ISTSC-Prime modeling of emissions and BAAQMD screening values for identified permitted sources within 1,000 feet of the project sites. By



<b>Table 22</b> <b>Summary Cancer and Non-Cancer Health Risks for the 801 Brannan Site</b>				
<b>Source</b>	<b>TAC</b>	<b>Cancer Risk</b>	<b>Non-Cancer Acute Hazard Index</b>	<b>Non-Cancer Chronic Hazard Index</b>
Cumulative Roadway	DPM	130/million	-	0.05
	TOG	12/million	0.006	0.02
	Total	142/million	0.006	0.07
Individual Roads:				
I-80	DPM	97.5/million	-	0.036
	TOG	9.3/million	0.008	0.008
	Total	106.8/million	0.008	0.044
Brannan St.	DPM	16/million	-	0.006
	TOG	2/million	0.002	0.002
	Total	18/million	0.002	0.008
Eighth Street	DPM	11/million	-	0.004
	TOG	1.4/million	0.002	0.002
	Total	12.4/million	0.002	0.006
Cumulative Point Sources	DPM	17/million	-	0.063
Individual Point Sources > 10/million: None				
Plant Number (See Figure 36)				
19722				
15296	DPM	2.84/million	-	0.001
9347	DPM	2.85/million	-	0.001
9347	DPM	5.96/million	-	0.002
19597	DPM	2.75/million	-	0.001
17695	DPM	0.006/million	-	0.00002
16399	DPM	0.006/million	-	0.00002
13853	DPM	0.67/million	-	0.0002
13781	DPM	0.20/million	-	0.00007
19701	DPM	0.005/million	-	0.00002
19701	DPM	0.07/million	-	0.00003
	DPM	0.003/million	-	0.00001
<b>Total All Sources</b>		<b>159/million</b>	<b>0.006</b>	<b>0.133</b>

Source: Donald Ballanti, *Air Quality Impact Report and Health Risk Assessment for the 801 Brannan/1Henry Adams Project* (AQTR), San Francisco, March 2011, Table 5.



<b>Table 23</b> <b>Summary Cancer and Non-Cancer Health Risks for the One Henry Adams Site</b>				
Source	TAC	Cancer Risk	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index
Cumulative Roadway	DPM TOG Total	81/million 9.5/million 90.5/million	- 0.004 0.004	0.03 0.01 0.04
Individual Roads: I-80	DPM TOG Total	54/million 4.5/million 58.5/million	- 0.006 0.006	0.02 0.005 0.0025
Cumulative Point Sources	DPM	15.7/million	-	0.051
Individual Point Sources > 10/million: None				
Plant Number (See Figure 36)				
19722				
15296	DPM	0.03/million	-	0.0001
9347	DPM	0.03/million	-	0.0001
9347	DPM	0.02/million	-	0.0001
19597	DPM	0.02/million	-	0.0001
17695	DPM	0.02/million	-	0.0001
16399	DPM	0.02/million	-	0.0001
13853	DPM	0.05/million	-	0.0002
13781	DPM	0.01/million	-	0.00003
19701	DPM	0.001/million	-	0.000006
19701	DPM	0.003/million	-	0.00001
	DPM	0.001/million	-	0.000004
Individual Point Sources > 10/million:	None			
<b>Total All Sources</b>	<b>106/million</b>		<b>0.004</b>	<b>0.091</b>

Source: Donald Ballanti, *Air Quality Impact Report and Health Risk Assessment for the 801 Brannan/1Henry Adams Project* (AQTR), San Francisco, March 2011, Table 6.



considering each source as a source group, the contributions of each individual source were also examined to determine which individual source thresholds are exceeded.

#### 801 Brannan Site

Table 22, -page 282, indicates that the project level individual source threshold of significance for cancer risk (10 in one million) would be exceeded at the 801 Brannan site for three roadways: I-80, Brannan Street, and Eighth Street. The cumulative cancer risk threshold of significance of 100 in one million would also be exceeded at the 801 Brannan site. The individual source non-cancer hazard index of 1.0 (acute and chronic) would not be exceeded, nor would the cumulative non- cancer hazard index of 10 (acute and chronic). Because at least one threshold of TAC impact significance would be exceeded at the 801 Brannan site, the proposed project, or either variant, would have a significant operational health risk impact as stated in the summary above, Impact AQ-8: Operational Health Risks – TACs, including PM2.5. Mitigation Measure M-AQ-8, below, would reduce sensitive receptor exposure to TACs by reducing resident exposure through the improvement of indoor air quality. This would be achieved through the use of filtration systems as described above. However, because Mitigation Measure M-AQ-8 would not reduce impacts to a less-than-significant with certainty, the impact would remain significant and unavoidable after mitigation.

#### One Henry Adams Site

Table 23 on page 283 indicates that the project level individual source threshold of significance for cancer risk (10 in one million) would be exceeded at the One Henry Adams site due to emissions from the I-80 freeway. The cumulative cancer risk threshold of significance of 100 in one million would also be exceeded at the One Henry Adams site. The individual source non-cancer hazard index of 1.0 (acute and chronic) would not be exceeded, nor would the cumulative non-cancer hazard index of 10 (acute and chronic).

Because at least one threshold of TAC impact significance would be exceeded at the One Henry Adams site, the proposed project, or either variant, would have a *significant* operational health risk impact as indicated in the summary statement above, Impact AQ-8: Operational Health Risk – TACs, including PM2.5. Mitigation Measure M-AQ-8, below, would reduce sensitive receptor exposure to TACs. However, because Mitigation Measure M-AQ-8 would not reduce impacts to a less-than-significant level with certainty, the impact would remain *significant and unavoidable with mitigation*.



**MITIGATION MEASURE M-AQ-8 (OPERATIONAL HEALTH RISK – TACs, INCLUDING PM2.5):**

To minimize residents' exposure to TAC-related health risks while indoors, the project sponsor has indicated that the proposed project, or either variant, would install the filtration system as required by DPH with a system whose air intake is located on the roof of the buildings and capable of removing 80 percent of PM2.5. The intake for the filtered air handling systems for the three residential buildings at the 801 Brannan site and two buildings at the One Henry Adams site shall be located to minimize exposure of residents to diesel particulate, TOG and PM2.5. Minimum exposure will be accomplished by placing filters as close as possible to the northern corner of each structure at the 801 Brannan site (Brannan Street side, towards Seventh Street) and as close as possible to the northeast corner of each structure at One Henry Adams (Rhode Island Street side, towards Division Street). Based on the risk calculation results reflecting these locations for air intake, the cumulative cancer risk in at this location would range from 59/million to 96/million, which is 40-63% lower than the maximally exposed individual (MEI) risk of 159/million.

At the One Henry Adams site, the intake for the filtered air handling system will be designed such that it is located as close as possible to the northeast corners of buildings (Rhode Island Street side, towards Division Street). Based on the risk calculation results reflecting these locations for air intake, the cumulative cancer risk in at this location would range from 64/million to 77/million, which is 28-40 percent lower than the MEI risk of 106/million.

However, the mitigation measure would not improve outdoor air quality. The air filtration systems, together with strategic location of air intakes, would reduce the cancer risk for exposure while indoors substantially. When incorporating the implementation of air filtration systems at each site, indoor risks at the 801 Brannan site would decrease to 11.8-19.2/million for cancer after mitigation and at One Henry Adams around 12.7-15.4/million for cancer risk after mitigation. However, health risk impacts under either the proposed project, or either variant, are conservatively judged to remain significant after mitigation.

**Impact C-AQ-9: Operation of the proposed project, or either variant, would expose sensitive receptors to substantial levels of air pollutants from roadway mobile sources and stationary sources, including PM2.5 and other TACs associated with cancer, and non-cancer health risks, which would exceed the BAAQMD cumulative cancer risk threshold of significance of 100 in one million. (Significant and Unavoidable with Mitigation)**



## EXHIBIT 3



706 MISSION STREET ▪  
THE MEXICAN MUSEUM AND  
RESIDENTIAL TOWER PROJECT  
VOLUME 1 - CHAPTERS I-VIII



CITY AND COUNTY OF SAN FRANCISCO  
PLANNING DEPARTMENT: CASE NO. 2008.1084E

STATE CLEARINGHOUSE NO. 2011042035

DRAFT EIR PUBLICATION DATE: JUNE 27, 2012

DRAFT EIR PUBLIC HEARING DATE: AUGUST 2, 2012

DRAFT EIR PUBLIC COMMENT PERIOD: JUNE 28, 2012 - AUGUST 13, 2012

*Written comments should be sent to:*

Environmental Review Officer  
San Francisco Planning Department  
1650 Mission Street, Suite 400  
San Francisco, CA 94103



**SAN FRANCISCO  
PLANNING  
DEPARTMENT**



The engine would likely be located in the basement with vents for exhaust and intake being oriented toward the north property line at or above the first floor. Development of the proposed project would introduce additional vehicular traffic in the project vicinity.

## APPROACH TO ANALYSIS

This section discusses the thresholds for determining whether a project would result in a significant air quality impact. Table IV.G.4: Air Quality Significance Thresholds, below, summarizes the air quality thresholds of significance. The table is followed by a discussion of each threshold.

**Table IV.G.4: Air Quality Significance Thresholds**

	Construction Thresholds	Operational Thresholds	
Pollutant	Average Daily Emissions (lb/day)	Average Daily Emissions (lb/day)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG	54	54	10
NOx	54	54	10
PM <sub>10</sub>	82	82	15
PM <sub>2.5</sub>	54	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
Health Risks and Hazards for New Sources			
Excess Cancer Risk	10 per one million		
Chronic or Acute Hazard Index	1.0		
Incremental annual average PM <sub>2.5</sub>	0.3 µg/m <sup>3</sup>		
Health Risks and Hazards for Sensitive Receptors (Cumulative from Sources within 1,000-foot zone of influence) and Cumulative Thresholds for New Sources			
Excess Cancer Risk	100 per one million		
Chronic Hazard Index	10.0		
Annual Average PM <sub>2.5</sub>	0.8 µg/m <sup>3</sup>		

Although BAAQMD's adoption of significance thresholds in 2010 and 2011 are the subject of recent judicial actions, the Planning Department has determined that Appendix D of the BAAQMD *CEQA Air Quality Guidelines*,<sup>26</sup> in combination with BAAQMD's *Revised Draft*

<sup>26</sup> BAAQMD *Guidelines*, Appendix D.



**Impact AQ-3: Construction of the proposed project would generate emissions of PM<sub>2.5</sub> and toxic air contaminants, including diesel particulate matter, at levels that would expose sensitive receptors to substantial pollutant concentrations. (*Less than Significant with Mitigation*) (Criterion G.4)**

As discussed above, a proposed project would result in a significant health risk and hazards impact if construction activities would result in the following at the maximally exposed individual sensitive receptor (MEI): excess cancer risk of 10 per million, chronic or acute HI of 1.0, or annual average PM<sub>2.5</sub> concentrations in excess of 0.3 micrograms per cubic meter. Diesel-powered construction equipment generates emissions of PM<sub>2.5</sub> that is by definition diesel particulate matter (DPM), which is identified as a TAC and carcinogen by ARB. Of the pollutants emitted by construction activities, DPM is a primary concern because many toxic compounds adhere to diesel exhaust particles. Diesel fuel use also results in non-cancer hazards due to other TACs that occur in the organic compounds of diesel exhaust. The proposed residential uses would only become occupied after construction is complete. However, existing off-site residential uses would be exposed to construction pollutant emissions. The sensitive receptor locations for the proposed project are presented in Table IV.G.6: Existing and Proposed Sensitive Receptors.

**Table IV.G.6: Existing and Proposed Sensitive Receptors on or near the Project Site**

Name of Land Use	Street Address	Elevation	Distance to Site (ft.)
Proposed Residential Units	706 Mission St	On Site, High-rise	On site
Four Seasons Hotel and Residences	757 Market St	High-rise	300
St. Regis Residences	125 Third St	High-rise	150
Paramount Residences	680 Mission St	High-rise	100
Ritz-Carlton Club & Residences	690 Market St	High-rise	650
Woolf House Apartments	801 Howard St	Mid-rise	1,000
<b>Child Care (Day Care) Location</b>			
Yerba Buena Gardens Child Development Center	790 Folsom Street	Second Floor	920

*Source: Aspen Environmental Group, 706 Mission Street Air Quality Technical Report, February 2012*

The *Air Quality Technical Report* prepared for the proposed project analyzed whether or not construction emissions during the three-year construction period could result in adverse health effects at nearby sensitive receptors. The analysis considered sensitive receptors within the 1,000-foot zone of influence and conservatively assumed the exposed population would be a resident child (see Table IV.G.6). To accomplish this, the cancer risks are weighted by age-sensitivity factors from the state Office of Environmental Health Hazard Assessment (OEHHA) to account for the possible differences in risk associated with a population that is early-in-life during the construction emissions. This analysis weighted the construction cancer risk by a factor of 10, consistent with OEHHA recommendations for exposures that occur from



the third trimester of pregnancy to 2 years of age. Mass emissions of construction-related PM<sub>2.5</sub> in the diesel exhaust from on-site diesel-powered construction equipment were entered into the project-specific ISC dispersion model to estimate ambient concentrations of PM<sub>2.5</sub> for all off-site sensitive receptors (residences and day care). Concentrations of TACs that occur in the diesel exhaust were also estimated, because of their potential to result in non-cancer health hazards. Construction emissions were modeled using average emission rates with adjustment factors to account for higher short-term rates because emissions would vary during the construction period. Emissions would diminish substantially during the final phase of interior and finishing activities. In the refined dispersion model, construction emissions were modeled as volume sources with a release height of 12 feet to correspond with typical equipment tailpipe locations. The offsite receptors were placed at 10-meter intervals with the receptor heights corresponding with the actual lowest upper-floor elevations occupied by residences. Receptors were not placed within areas covered by roadways or other nearby properties unless those properties were occupied by sensitive land uses (as in Table IV.G.6). Other details on source parameters, meteorological parameters, and receptor parameters for the refined modeling and risk calculations are discussed in the *Air Quality Technical Report*.

Table IV.G.7: Summary of Risk and Hazards, Unmitigated Construction Impacts to Sensitive Receptors, shows the results of refined modeling for the proposed construction-phase emissions.

**Table IV.G.7: Summary of Risk and Hazards, Unmitigated Construction Impacts to Sensitive Receptors**

Location	Excess Cancer Risk (per million)	Chronic Non-Cancer Hazard Index	Acute Non-Cancer Hazard Index	Incremental Annual Average PM <sub>2.5</sub> (µg/m <sup>3</sup> )
Existing Resident Child (MEI) - Off-Site Residences	27.3	0.121	0.019	0.1998
Existing Day Care - Off-Site	1.6	0.013	0.002	0.0214
<b>Significance Thresholds</b>	<b>10</b>	<b>1.0</b>	<b>1.0</b>	<b>0.3</b>
<b>Significant?</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Aspen Environmental Group, 706 Mission Street Air Quality Technical Report, February 2012. ISC modeling results.

Unmitigated emissions would result in an excess cancer risk of 27.3 at the project MEI. The compact project site and lack of buffer space between the site boundary and sensitive receptors limit the ability for construction-phase emissions to disperse. The MEI location and the highest pollutant concentrations would occur at the existing residential receptors across Third Street about 100 feet to the northeast. The pollutant concentrations experienced at the nearest day care location, approximately 920 feet to the south, would be substantially lower and would not exceed the thresholds for risk or hazards.



Construction-phase risk and hazards would be dominated by the emissions of DPM and PM<sub>2.5</sub>. Incremental concentrations of PM<sub>2.5</sub> in the ambient air from construction-phase activity would not exceed the project-level threshold for community risk from PM<sub>2.5</sub> (0.3 µg/m<sup>3</sup>). However, maximum excess lifetime cancer risk would be 27.3 per one million at the nearest sensitive receptors, which exceeds the project-level threshold (10 per million). The non-cancer hazards would be below the hazard thresholds and minor in comparison to the potential cancer risk. Mitigation would be required to address the increased cancer risk from DPM.

Construction-phase cancer risk and PM<sub>2.5</sub> concentrations could be substantially reduced with implementation of feasible mitigation measures to reduce construction-related emissions. Unmitigated construction-phase impacts (Table IV.G.7) could be reduced with aggressive control of diesel construction equipment emissions. Because unmitigated construction-phase cancer risk would exceed the thresholds of significance for the nearest off-site sensitive receptor and because construction-phase cancer risk would be dominated by risk due to exposure to DPM, feasible mitigation would be needed to reduce DPM emissions from the construction equipment used on site (including excavators, cranes, and generators). Construction impacts would need to be reduced by approximately 65 percent from the level shown in Table IV.G.7 to result in an impact that is below the cancer risk threshold. An analysis of possible methods to reduce construction emissions was undertaken, as reported in the *Air Quality Technical Report*. This analysis includes a project-specific review of controlling the proposed construction fleet. For example, certain equipment can be powered primarily by electricity distributed from the grid or by propane fuel, which eliminates DPM emissions from that equipment. Similarly if equipment were to meet Interim Tier 4 diesel engine standards, or were to be retrofitted with a Level 3 Verified Diesel Emissions Control Strategy (VDECS), DPM emissions from that equipment could potentially be reduced by as much as 85 percent, depending on the engine. As part of the *Air Quality Technical Report*,<sup>55</sup> the sponsor coordinated with likely construction equipment fleet owners and operators to determine project-specific levels of feasible emission controls for each type of equipment in the proposed construction fleet. Emission factors reflecting the feasible controls were applied to the inventory of equipment provided by the sponsor to analyze the effectiveness of emissions minimization approaches, and the results of that review are identified as mitigation. Accordingly, Mitigation Measure M-AQ-3: Construction Emissions Minimization, shown below, specifies the necessary and feasible controls required to reduce construction emissions by 65 percent in order to result in less-than-significant impacts to off-site receptors. Table IV.G.8: Summary of Risk and Hazards, Mitigated Construction Impacts to Sensitive Receptors, shows the mitigated construction air quality impact results for risk and hazards with implementation of the Construction Emissions Minimization Plan, delineated below.

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<sup>55</sup> *Air Quality Technical Report*, pp. 25-26.



**Table IV.G.8: Summary of Risk and Hazards, Mitigated Construction Impacts to Sensitive Receptors**

<b>Location</b>	<b>Excess Cancer Risk (per million)</b>	<b>Incremental Annual Average PM<sub>2.5</sub> (µg/m<sup>3</sup>)</b>
Existing Resident Child (MEI) - Off-Site Residences	9.7	0.071
Existing Day Care - Off-Site	0.6	0.008
<b>Significance Thresholds</b>	<b>10</b>	<b>0.3</b>
<b>Significant?</b>	<b>No</b>	<b>No</b>

*Source:* Aspen Environmental Group, 706 Mission Street Air Quality Technical Report, February 2012. ISC modeling results, with a 65 percent reduction of DPM emissions.

Implementation of Mitigation Measure M-AQ-3 would reduce the estimated cancer risk impacts experienced by off-site receptors to below the project-level threshold of significance.

#### **Mitigation Measure M-AQ-3: Construction Emissions Minimization**

To reduce the potential health risk resulting from project construction activities, the project sponsor shall prepare a Construction Emissions Minimization Plan (included as Appendix G) designed to reduce construction-related diesel particulate matter emissions from off-road construction equipment used at the site by at least 65 percent as compared to the construction equipment list, schedule, and inventory provided by the sponsor on May 27, 2011.<sup>56</sup>

The project sponsor shall include all requirements identified in the Construction Emissions Minimization Plan in contract specifications for the entire duration of construction activities.

The Construction Emissions Minimization Plan shall include the following requirements, which would achieve the required 65 percent reduction in construction period diesel particulate matter emissions:

- Limit idling times by either shutting equipment off when not in use or reducing the maximum idling time to two minutes.
- Prohibit use of diesel generators for electric power because on-site distribution of electricity is available.
- Require construction contractors to use electric or propane powered devices for the following types of equipment:
  - Tower Crane
  - Fork Lifts and Manlifts
  - Portable Welders
  - Concrete Placing Booms
- Require construction contractors to use portable compressors that are either electric powered or powered by gasoline engines or engines compliant with Tier 4 standards.

<sup>56</sup> *Air Quality Technical Report, Attachment A08.*



- Require use of Interim Tier 4 or Tier 4 equipment where such equipment is available and feasible for use. Use of Interim Tier 4 or Tier 4 equipment would be feasible for the following types of equipment:
  - Backhoes
  - Rubber-Tired Dozers
- Require use of Tier 2/Tier 3 equipment retrofitted with ARB Level 3 Verified Diesel Emissions Control System (VDECS, which includes diesel particulate filters). The following types of equipment are identified as candidates for retrofitting with ARB-certified Level 3 VDECS (which are capable of reducing DPM emissions by 85 percent or more), due to their expected operating modes (i.e., fairly constant use at high revolutions per minute):
  - Excavators
  - Concrete Boom Pumps
  - Concrete Trailer Pumps
- Use of Tier 3 equipment for the following types of equipment:
  - Portable Cranes
  - Soil Mix Drill Rigs
  - Soldier Pile Drill Rigs
  - Shoring Drill Rigs

If the foregoing requirements are implemented, no further quantification of emissions shall be required. Alternatively, the project sponsor may elect to substitute alternative measures in the Construction Emissions Minimization Plan for review and approval by the Environmental Review Officer (ERO). Such alternative measures would be subject to demonstrating that the alternative measures would achieve the required 65 percent reduction in construction period diesel particulate matter emissions, including without limitation the following:

- Use of other late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and add-on devices such as particulate filters; and
- Other options as such become available.

The project sponsor shall submit the Construction Emissions Minimization Plan to the ERO for review and approval by an Environmental Planning Air Quality Specialist prior to the commencement of construction activities.

#### Level of Significance with Mitigation

Feasible control strategies to reduce DPM emissions were identified in the *Air Quality Technical Report*.<sup>57</sup> Mitigation Measure M-AQ-3: Construction Emissions Minimization would require on-site construction equipment to be powered primarily by electricity distributed from the grid,

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<sup>57</sup> *Air Quality Technical Report*, pp. 25-26.



propane fuel, or the lowest-emitting engines found feasible, including engines retrofitted with diesel particulate filters. Use of an alternative fuel like propane, which is a consumer-quality gaseous fuel, would result in some TAC emissions; however, because emissions and health effects from alternative fuel use would be minor compared to the adverse effects of DPM, substantially reducing or eliminating DPM emissions would be the primary risk management strategy. By requiring that the equipment specified in the measure like cranes, excavators, forklifts, backhoes, and pumps avoid diesel fuel use or use the lowest-emitting diesel powered engines available, this construction mitigation measure would avoid 65 percent of the DPM and PM<sub>2.5</sub> emissions that would otherwise occur with a comparable baseline fleet of Tier 2/Tier 3 equipment. The proposed construction fleet, emissions factors for equipment with and without controls, and the effectiveness of these controls for the project-specific construction fleet appear in the *Air Quality Technical Report*.<sup>58</sup>

Implementation of Mitigation Measure M-AQ-3 would result in the maximum feasible emissions reductions, thereby reducing the cancer risk and PM<sub>2.5</sub> concentrations to which sensitive receptors would be exposed. With the mix of diesel-powered construction equipment specified by this measure, the construction air quality impact related to health risks and hazards would be reduced to a less-than-significant level.

#### **Operational Air Quality Impacts**

**Impact AQ-4: Operation of the proposed project would not violate an air quality standard or contribute substantially to an existing or projected air quality violation; nor would it result in a cumulatively considerable net increase of any criteria air pollutant for which the project region is in nonattainment under an applicable ambient air quality standard. (*Less than Significant*) (Criteria G.2 and G.3)**

The potential for project-related operational emissions to violate any air quality standard or contribute substantially to an existing or projected violation is described below.

The emissions increases attributable to operation of the proposed project would be from the total of project-related stationary sources (a diesel-fueled back-up emergency generator engine and natural-gas-fired mechanical systems or boilers), operational vehicle trips generated by onsite project uses, and area sources such as use of natural gas for heating and cooking. Emissions were quantified for operation of the proposed land uses using URBEMIS, which provides average daily and annual emission rates based on the expected vehicle trip generation rates and overall land use characteristics. Project-specific details are shown in the *Air Quality Technical Report*.

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<sup>58</sup> *Air Quality Technical Report*, Attachment A08.



Project-related stationary source emissions are based upon the following regulatory requirements:

- Back-up emergency generator engine compliant with USEPA Tier 2 emission standards, or higher, and compliant with Airborne Toxic Control Measure (ATCM) and Best Available Control Technology (BACT) in compliance with current regulations.
- Natural gas-fired mechanical systems compliant with BAAQMD Regulation 9, Rule 7 and BACT.

Total criteria pollutant emissions from the anticipated operation-related sources are quantified in Table IV.G.9: Operation-Related Daily Emissions of Criteria Air Pollutants, and Table IV.G.10: Operation-Related Annual Emissions of Criteria Air Pollutants. These tables show that the criteria air pollutant emissions would be below the applicable significance thresholds.

**Table IV.G.9: Operation-Related Daily Emissions of Criteria Air Pollutants (lb/day)**

Sources	ROG	NOx	Exhaust PM <sub>10</sub>	Exhaust PM <sub>2.5</sub>
Proposed Back-up Generator	0.58	1.57	0.07	0.07
Proposed Mechanical Systems	1.68	4.80	1.680	1.680
Area Sources (e.g., natural gas, domestic)	14.47	4.88	< 0.005	< 0.005
Mobile Sources (vehicle trips)	8.33	7.62	< 16.82	< 3.18
<b>Total Average Daily Emissions</b>	<b>25.1</b>	<b>18.9</b>	<b>18.6</b>	<b>4.9</b>
<b>Significance Thresholds (lb/day)</b>	<b>54</b>	<b>54</b>	<b>82</b>	<b>54</b>
<b>Significant?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

*Note:* lb/day = pounds per day, average.

*Source:* Aspen Environmental Group, 706 Mission Street Air Quality Technical Report, February 2012. URBEMIS results and supporting calculations.

**Table IV.G.10: Operation-Related Annual Emissions of Criteria Air Pollutants  
(tons per year)**

Sources	ROG	NOx	Exhaust PM <sub>10</sub>	Exhaust PM <sub>2.5</sub>
Proposed Back-up Generator	0.11	0.29	0.01	0.01
Proposed Mechanical Systems	0.31	0.88	0.31	0.31
Area Sources (e.g., natural gas, domestic)	2.64	0.89	< 0.005	< 0.005
Mobile Sources (vehicle trips)	1.52	1.39	< 3.07	< 0.58
<b>Total Annual Emissions</b>	<b>4.6</b>	<b>3.5</b>	<b>3.4</b>	<b>0.9</b>
<b>Significance Thresholds (tons per year)</b>	<b>10</b>	<b>10</b>	<b>15</b>	<b>10</b>
<b>Significant?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

*Source:* Aspen Environmental Group, 706 Mission Street Air Quality Technical Report, February 2012. URBEMIS results and supporting calculations.



Emissions from traffic at congested intersections can, under certain circumstances, cause a localized build-up of CO concentrations. However, the proposed project would be consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans. The project traffic from the proposed project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. Nor would project traffic from the proposed project increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway). Because these criteria would be met for the proposed project, there would be no violation of ambient air quality standards with respect to localized CO. Therefore, no further analysis would be required, and there would be no significant impact related to CO concentrations.

The unmitigated criteria air pollutant emissions during the operational phase would be below the thresholds of significance. Project operational criteria air pollutant emissions that are at levels below the applicable thresholds would not violate an existing ambient air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in emissions of any criteria air pollutant. Therefore, effects related to operational criteria air pollutant emissions would be less than significant, and no mitigation measures are necessary.

**Impact AQ-5: Operation of the proposed project would not generate emissions of PM<sub>2.5</sub> and toxic air contaminants, including diesel particulate matter, at levels that would expose sensitive receptors to substantial pollutant concentrations. (*Less than Significant*) (Criterion G.4)**

The proposed project would introduce new stationary sources to the project vicinity, including a diesel-fueled compression-ignition internal combustion engine for use as a back-up generator. Table IV.G.11: Summary of Risk and Hazards, Proposed Project New Sources, shows the results of refined modeling for the proposed new back-up generator engine. Impacts from the back-up generator were analyzed with the project-specific air dispersion modeling and risk assessment using the ISC3-Prime dispersion model. Both proposed on-site and existing off-site receptors (residences and day care) were included in the modeling and risk calculations. For on-site and off-site receptors, the analysis conservatively assumed that the exposed population would begin as a resident child and experience continuous lifetime (70-year) exposure to operational emissions. To accomplish this, the cancer risks were weighted by age-sensitivity factors from the state OEHHA for infants, children through 15 years of age, and adults aged to 70 years. The refined dispersion modeling considered the worst-case emissions release parameters with a horizontal engine exhaust outlet near ground level to correspond with typical equipment tailpipe locations for the backup generator. Other details on source parameters, meteorological



**Table IV.G.11: Summary of Risk and Hazards, Proposed Project New Sources**

Project Source, Impact to Maximally Exposed Individual	Excess Cancer Risk (per million)	Chronic Non-Cancer Hazard Index	Acute Non-Cancer Hazard Index	Incremental Annual Average PM <sub>2.5</sub> (µg/m <sup>3</sup> )
On-site Diesel Back-up Generator (1,490 hp) - On-Site Residences (MEI)	5.6	0.0063	0.0010	0.0104
<b>Significance Thresholds</b>	<b>10</b>	<b>1.0</b>	<b>1.0</b>	<b>0.3</b>
<b>Significant?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Aspen Environmental Group, 706 Mission Street Air Quality Technical Report, February 2012. ISC modeling results.

parameters, and receptor parameters for the refined modeling and risk calculations are discussed in the *Air Quality Technical Report*.

The proposed project would also add natural gas-fired systems for heating, ventilation, and hot water, but the natural gas-fired systems would be “minor, low-impact sources” and unlikely to pose a significant community risk or hazard or adverse health impact.<sup>59</sup> In addition, there would be some incremental risk associated with emissions from project-related traffic. However, project trip generation rates would be less than 1,200 vehicle trips per day, and because this level of traffic would be well below 10,000 vehicles per day (the level for a “minor, low-impact” road, according to BAAQMD),<sup>60</sup> project traffic would not substantially contribute to incremental risk.

The location of the MEI for the proposed back-up generator engine would be a new project resident on the fourth floor of the north side of the project site, the lowest elevation where outdoor air could be drawn into residences. The maximum excess lifetime cancer risk due to this individual source would be 5.6 per one million. Other existing offsite residential receptors in the project area would be further from the proposed source so that risk and hazards would be lower than those shown in Table IV.G.11. Compared with the proposed new back-up generator engine, negligible contributions to incremental risk would occur with the proposed “minor, low-impact” natural-gas-fired systems and project traffic on surrounding roadways. No existing or proposed receptors would experience increased cancer risk or hazards exceeding the significance threshold for new sources, and the threshold for incremental PM<sub>2.5</sub> concentrations would not be exceeded at any receptor. Because the proposed new back-up generator engine, proposed “minor, low-impact sources,” and project traffic would not cause potentially significant levels of increased cancer

<sup>59</sup> BAAQMD, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, May 2011, (hereinafter referred to as “BAAQMD, *Recommended Methods*”). Available online at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. Accessed February 8, 2012.

<sup>60</sup> BAAQMD, *Recommended Methods*, p. 12, p. 84.



risk, hazards, or PM<sub>2.5</sub> concentrations, this impact would be less than significant, and no mitigation measures are necessary.

**Impact AQ-6: Operation of the proposed project would not expose new on-site sensitive receptors to substantial pollutant concentrations. (Less than Significant) (Criterion G.4)**

The proposed project would introduce new residential receptors to an area affected by emissions from various existing permitted stationary sources, major roadways, and the new proposed back-up generator. In addition to the proposed generator engine, on-site sensitive receptors (residences) would be exposed to TACs emitted by the existing stationary sources and traffic on the roadways. As discussed in the “Approach to Analysis” on p. IV.G.25, the analysis for new receptors exposed to health risks and hazards considers all potential sources of TACs within a 1,000-foot zone of influence that may pose a significant health risk, and therefore represents a cumulative impact to new sensitive receptors.<sup>61</sup>

BAAQMD records indicate that there are 24 existing BAAQMD-permitted stationary sources of air pollutants within or near the recommended 1,000-foot radius; these are shown in Table IV.G.12: Stationary Emission Sources Within or Near a 1,000-Foot Radius of the Project Site, and in Figure IV.G.1, p. IV.G.12.

The permitted facilities in the vicinity are made up of stationary diesel engines for back-up power generators or fire water pump engines, that are for emergency use only, with some additional permitted natural gas-fired (non-diesel) heating systems. Each facility with a stationary diesel engine was included in the refined modeling as a point source of PM<sub>2.5</sub>, DPM, and other contaminants. Because the BAAQMD considers non-diesel-fueled sources to be “minor, low-impact” and unlikely to pose a significant health impact,<sup>62</sup> only facilities with diesel-fueled sources were modeled as stationary sources. Field observations and aerial photos were used to determine the height of the emitting sources for modeling with exhaust points on roof tiers or mezzanine levels, and emission rates were provided by the BAAQMD inventory. Each of the existing facilities with diesel sources was analyzed for the potential to cause health risks and hazards for new receptors.

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<sup>61</sup> As used in this discussion, “cumulative” means the accumulation of multiple sources of emissions on new sensitive receptors at the project site, rather than the cumulative impact of past, present, and reasonably foreseeable future projects as the term “cumulative impacts” is explained in CEQA Guidelines Sections 15065(a)(3) and 15130.

<sup>62</sup> BAAQMD, *Recommended Methods*, p. 12.



**Table IV.G.12: Stationary Emission Sources Within or Near a 1,000-Foot Radius of the Project Site**

BAAQMD Site #	Facility Name	Street Address	Approx. Distance to Site (ft.)
9310	San Francisco Marriott Hotel	55 4th Street	400
9341	Sheraton Palace Hotel	2 New Montgomery Street	560
10110	Center for the Arts at Yerba Buena	701 Mission Street	110
13346	Third & Mission Associates	680 Mission Street	240
13843	Seagate Properties Inc.	44 Montgomery Street	1,190
13989	CFRI Market Street Corp.	799 Market Street	860
14119	Westfield Metreon LLC	101 4th Street	730
14222	Crocker Plaza Co.	1 Post Street	1,080
14223	G&G Martco LP	201 3rd Street	780
14427	Cushman & Wakefield of California, Inc.	88 Kearny Street	1,000
15560	Four Seasons Hotel and Residences	757 Market Street	200
15624	199 New Montgomery Owners Assoc.	199 New Montgomery Street	1,050
16526	Hines 55 Second Street LP	55 2nd Street	1,110
16708	San Francisco Museum of Modern Art	151 3rd Street	470
16743	Neiman Marcus	150 Stockton Street	1,150
16795	Westfield San Francisco Center	835 Market Street	960
16798	SF Museum Tower LLC	125 3rd Street	310
16974	Patelco Credit Union	156 2nd Street	1,040
18609	Stockbridge 140 New Montgomery LLC	140 New Montgomery Street	750
18763	Glenborough New Montgomery, LLC	33 New Montgomery Street	890
18804	Contemporary Jewish Museum	736 Mission Street	130
19153	Ritz-Carlton Club & Residences, San Francisco	690 Market Street	630
19929	The Moscone Center	747 Howard Street	900 to 1,300
19990	Woolf House	801 Howard Street	1,000

Source: BAAQMD, CEQA Tools & Methodology, Stationary Source Screening Analysis Tool, for San Francisco County. Available at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>. Accessed March 2011.

Motor vehicle traffic flows on arterial streets in the existing local roadway system are modeled as sources of PM<sub>2.5</sub>, DPM, and other TACs. The major roadways that may contribute to elevated concentrations of pollutants in the vicinity are the 10 nearby streets that have at least 10,000 vehicles in annual average daily traffic, as identified in Table IV.G.13: Major Roadways Within a 1,000-Foot Radius of the Project Site. In the refined modeling, all mobile sources on each roadway were grouped into adjacent volume sources within the public right-of-way for each street in the vicinity, and emission rates were based on San Francisco County fleet-wide average emissions per vehicle-mile-traveled within each segment. The emission rates for each stationary source and traffic on each major roadway, along with details of the source release parameters, meteorological parameters, and receptor parameters are discussed in the *Air Quality Technical*



**Table IV.G.13: Major Roadways Within a 1,000-Foot Radius of the Project Site**

Street Name	Annual Average Daily Traffic
Third Street	32,100
Mission Street	13,200
Fourth Street	22,810
Market Street	41,000
Kearny Street	21,100
Grant Avenue	20,900
Howard Street	23,940
New Montgomery Street	23,100
O'Farrell Street	19,700
Second Street	22,400

*Source:* Roadway Segment Volumes, San Francisco County Transportation Authority CHAMP Model data provided by Planning Department as of 3/2/2011

*Report.* All segments of the 10 major roadways within 1,000 feet of the project site were analyzed for the potential to cause health risks and hazards for new receptors.

The project would result in negligible contributions to incremental risk with the proposed “minor, low-impact” natural-gas-fired systems, and from the addition of project traffic on surrounding roadways. Therefore, these sources are not considered further in this analysis, as explained in Impact AQ-5 on pp. IV.G.38-IV.G.40.

The proposed project would include emissions from a new stationary source, the proposed back-up generator. As discussed under Impact AQ-5, the maximum excess lifetime cancer risk for new residents due to this individual source would be 5.6 in one million. The health risks and hazards found for the proposed back-up generator (Impact AQ-5) were included in this evaluation of risks and hazards for new receptors.

The individual contributions of each of the existing sources and roadways, along with the proposed back-up generator, were added together to arrive at the total health risks and hazards for the proposed new receptors, and these results were compared with the cumulative thresholds for new receptors in Table IV.G.4, p. IV.G.20. To determine whether proposed on-site residences would be exposed to substantial pollutant concentrations the analysis considers exposure from all of the existing and proposed sources that may pose a significant risk or hazard within the 1,000-foot zone of influence for the project site.

Table IV.G.14: Summary of Risk and Hazards, Proposed Project New Receptors, shows the results of refined modeling for sources potentially affecting the proposed new receptors. Table IV.G.14 shows that the existing and proposed sources would not expose the proposed new receptors to substantial pollutant concentrations of PM<sub>2.5</sub> or TACs because new receptors would



**Table IV.G.14: Summary of Risk and Hazards, Proposed Project New Receptors**

<b>Individual Source, Impact to New On-Site Residences</b>	<b>Excess Cancer Risk (per million)</b>	<b>Chronic Non-Cancer Hazard Index</b>	<b>Incremental Annual Average PM<sub>2.5</sub> (µg/m<sup>3</sup>)</b>
On-site Diesel Back-up Generator (1,490 hp) - On-Site Residences (MEI)	5.6	0.0063	0.0104
San Francisco Marriott Hotel	2.7	0.0030	0.0050
Sheraton Palace Hotel	0.4	0.0005	0.0008
Third & Mission Associates	0.3	0.0004	0.0006
Seagate Properties Inc	0.2	0.0002	0.0004
CFRI Market Street Corp	0.3	0.0003	0.0006
Westfield Metreon LLC	0.1	0.0001	0.0002
Crocker Plaza Co	0.0	0.0000	0.0000
G&G Martco LP	0.0	0.0000	0.0001
Cushman & Wakefield of California, Inc	0.1	0.0001	0.0002
Hines 55 Second Street LP	0.1	0.0001	0.0001
San Francisco Museum of Modern Art	0.9	0.0010	0.0016
Neiman Marcus	0.0	0.0000	0.0001
Westfield San Francisco Center	3.2	0.0035	0.0058
SF Museum Tower LLC	2.7	0.0030	0.0049
Glenborough New Montgomery, LLC	0.2	0.0002	0.0003
Ritz-Carlton Club & Residences San Francisco	0.1	0.0001	0.0001
The Moscone Center	0.5	0.0006	0.0010
Woolf House	0.1	0.0001	0.0001
Third Street	3.0	0.0035	0.0373
Mission Street	2.2	0.0026	0.0276
Fourth Street	2.2	0.0025	0.0267
Market Street	6.1	0.0070	0.0743
Kearny Street	0.2	0.0002	0.0021
Grant Avenue	0.5	0.0005	0.0057
Howard Street	1.5	0.0018	0.0189
New Montgomery Street	0.8	0.0009	0.0099
O'Farrell Street	1.1	0.0013	0.0135
Second Street	0.6	0.0007	0.0080
<b>Total</b>	<b>35.7</b>	<b>0.041</b>	<b>0.256</b>
<b>New Receptors Significance Thresholds</b>	<b>100</b>	<b>10</b>	<b>0.8</b>
<b>Significant?</b>	<b>No</b>	<b>No</b>	<b>No</b>

*Note:* µg/m<sup>3</sup> = micrograms per cubic meter

*Source:* Aspen Environmental Group, 706 Mission Street Air Quality Technical Report, February 2012. ISC modeling results.



experience excess cancer risk less than 100 per one million; a chronic non-cancer HI of less than 10.0; and an incremental PM<sub>2.5</sub> concentrations less than 0.8 µg/m<sup>3</sup>. Therefore, the impact would be less than significant, and no mitigation measures are necessary.

**Impact AQ-7: Construction and operation of the proposed project would not conflict with or obstruct implementation of the Bay Area 2010 Clean Air Plan (CAP), the applicable air quality plan. (*Less than Significant*) (Criterion G.1)**

The most recently adopted air quality plan for the San Francisco Bay Area Air Basin is the *2010 Clean Air Plan*. The *2010 Clean Air Plan* is a road map showing how the San Francisco Bay Area will achieve compliance with the state ozone standards as expeditiously as practicable and how the region will reduce transport of ozone and ozone precursors to neighboring air basins. In determining consistency with the *2010 Clean Air Plan*, this analysis considers whether the project would (1) support the primary goals of the CAP, (2) include applicable control measures from the CAP, and (3) avoid disrupting or hindering implementation of control measures identified in the CAP.

The primary goals of the *2010 Clean Air Plan* are to attain air quality standards, reduce pollutant exposure and protect public health, and reduce greenhouse gas (GHG) emissions. The discussion of project GHG emissions appears in Section IV.H, which demonstrates that the proposed project would comply with the applicable provisions of the City's Greenhouse Gas Reduction Strategy.

The proposed project would be a high-density mixed-use infill development in a transit-oriented area that would intensify the density of land uses on the site. Development of the proposed project would generate emissions during construction (see Table IV.G.5, p. IV.G.29) and would cause an increase in emissions from mobile sources due to motor vehicle trips and from other sources (area sources and the proposed stationary sources) during the operation of the project (see Table IV.G.9 and Table IV.G.10, p. IV.G.37); as shown above, the emission increases would not exceed the applicable significance thresholds.

The analysis above illustrates that neither project construction nor operation would contribute substantial levels of emissions, and that project-related emissions would not be likely to impede attainment of the air quality standards. As the proposed project would not result in substantial, long-term increases in criteria air pollutants, the proposed project would support the primary goal of the *2010 Clean Air Plan* to attain the air quality standards.

Project sources could increase exposure of sensitive receptors to pollutants that increase public health risks. Diesel-powered construction equipment emissions would increase exposure of sensitive receptors to TACs temporarily during construction, but mitigation identified above would reduce these emissions to the maximum extent feasible and would reduce the impact to be less than significant with mitigation. The incremental exposure of receptors to TACs during



operation would be due to the presence of existing sources, one new stationary source (the proposed back-up generator), area sources, and mobile sources, but these sources would not expose receptors to substantial pollutant concentrations. As the proposed project would not expose receptors to substantial pollutant concentrations, the proposed project would support the primary goal of the *2010 Clean Air Plan* to reduce pollutant exposure and protect public health.

In summary, as the proposed project would not result in substantial, long-term increases in criteria air pollutants, TAC, or GHG emissions, the proposed project would be considered to support the primary goals of the *2010 Clean Air Plan*.

To meet the primary goals, the CAP recommends specific control measures and actions. These control measures are grouped into various categories and include stationary and area source measures, mobile source measures, transportation control measures, land use measures, and energy and climate measures. The CAP recognizes that to a great extent, community design dictates individual travel mode and that a key long-term control strategy to reduce emissions of criteria pollutants, air toxics, and GHGs from motor vehicles is to channel future Bay Area growth into vibrant urban communities where goods and services are close at hand, and people have a range of viable transportation options. To this end, the *2010 Clean Air Plan* includes 55 control measures aimed at reducing air pollution in the SFBAAB.

The measures most applicable to the proposed project are transportation control measures and energy and climate control measures. The proposed project would be consistent with energy and climate control measures as discussed in Section IV.H, Greenhouse Gas Emissions, which demonstrates that the proposed project would comply with the applicable provisions of the City's Greenhouse Gas Reduction Strategy.

The compact development of the proposed project and high availability of viable transportation options ensure that visitors could bicycle, walk, and ride transit to and from the project site instead of taking trips via private automobile. These features ensure that the project would avoid substantial growth in transportation demand of automobile trips and vehicle miles traveled. The proposed project would require an amendment to the Planning Code Zoning Map to increase the height limit at the project site, and the project would be generally consistent with the *San Francisco General Plan* as discussed in Chapter III, Plans and Policies. Transportation control measures that are identified in the *2010 Clean Air Plan* are implemented by the *San Francisco General Plan* and the Planning Code, for example, through the City's Transit First Policy, bicycle parking requirements, and transit impact development fees applicable to the proposed project. By complying with these applicable requirements, the project would include relevant transportation control measures specified by the *2010 Clean Air Plan*.



Examples of a project that could cause the disruption or delay of CAP control measures are projects that would preclude the extension of a transit line or bike path, or projects that propose excessive parking beyond parking requirements. The proposed project would add residential and other uses to a dense, walkable urban area near a concentration of regional and local transit service, services and other attractions. It would not preclude the extension of a transit line or a bike path or any other transit improvement, and as such, the proposed project would avoid disrupting or hindering implementation of control measures identified in the CAP.

For the reasons described above, the proposed project would not interfere with implementation of the *2010 Clean Air Plan*, and because the proposed project would be consistent with the air quality plan that shows how the region will improve ambient air quality and achieve the state and federal ambient air quality standards, this impact would be less than significant. No mitigation measures are necessary.

**Impact AQ-8: Construction and operation of the proposed project would not expose a substantial number of people to objectionable odors. (*Less than Significant*) (Criterion G.5)**

No notable odor sources would occur as part of the proposed project. There may be some potential for small-scale, localized odor issues to emerge as a result of construction activities or sources common to the proposed residential and commercial uses, such as solid waste collection or food preparation, etc. However, substantial odor sources and consequent effects to on-site and off-site sensitive receptors would be unlikely. Exposure to odors would be significant if sensitive receptors would be introduced to a location with more than five confirmed complaints per year averaged over three years. Because no confirmed odor complaints have occurred near the project site in the previous three years reported by BAAQMD, this impact would be less than significant, and no mitigation measures are necessary.

## **CUMULATIVE IMPACT EVALUATION**

As discussed above, regional air pollution is by its very nature largely a cumulative impact. Emissions from past, present and future projects contribute to the region's adverse air quality on a cumulative basis. No single project by itself would be sufficient in size to result in regional nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative adverse air quality impacts.<sup>63</sup> The project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to

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<sup>63</sup> BAAQMD, *California Environmental Quality Act (CEQA) Air Quality Guidelines*, June 2010; and adopted Thresholds of Significance, June 2010, p. 2-1. Available online at <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx>. Accessed April 18, 2012.



an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, because the proposed project's construction (Impact AQ-1) and operational (Impact AQ-4) emissions would not exceed the project-level thresholds for criteria air pollutants, the proposed project would not be considered to result in a cumulatively considerable contribution to regional air quality impacts.

**Impact C-AQ-1: Construction and operation of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable contribution to exposure of sensitive receptors to significant cumulative substantial pollutant concentrations. (*Less than Significant*) (Criterion G.4)**

The cumulative air quality impact analysis for health risks and hazards considers all potential sources of TACs within a 1,000-foot zone of influence that may pose a significant health risk to sensitive receptors. The methodology and assumptions used for assessing construction and operational health risks and hazards are described above (under Impact AQ-3, Impact AQ-5, and Impact AQ-6), with additional details provided in the *Air Quality Technical Report* prepared for the proposed project.<sup>64</sup>

The proposed project's construction activities would contribute to cumulative health risks and hazards at the construction MEI. To determine the maximum potential cumulative risks and hazards during construction, the effects at the MEI for construction were added to the effects at the on-site project MEI for existing permitted sources and major roadways. This conservatively over-estimates the cumulative risk because the increased risk and hazards experience by the on-site MEI would be greater than those at the construction MEI. Cumulative sources, in addition to project construction activities, include the contribution from roadways with greater than 10,000 vehicles per day, construction of other projects, and permitted stationary sources, as well as project-generated emissions. Combining unmitigated emissions from construction, permitted sources, and roadways results in an estimated cumulative cancer risk of 77.8 in one million, less than the cumulative significance threshold of 100 in one million. The cumulative chronic Hazard Index would be less than 0.3, below the significance threshold of 10. The cumulative incremental annual average PM<sub>2.5</sub> concentration would be 0.55 micrograms per cubic meter, less than the significance threshold of 0.8 micrograms per cubic meter.

Furthermore, the proposed project would be required to implement Mitigation Measure M-AQ-3, which would reduce construction emissions by approximately 65 percent. This mitigation measure is based on strategies developed by the project sponsor to control diesel construction equipment emissions and was determined to be feasible based on information obtained by the project sponsor from likely construction equipment fleet owners and operators. Therefore,

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<sup>64</sup> *Air Quality Technical Report*, pp. 16-24.



cumulative health risks and hazards would be further reduced, and incorporation of Mitigation Measure M-AQ-3 would result in an estimated cumulative cancer risk of 60.2 in one million, less than the cumulative significance threshold of 100 in one million. The cumulative chronic Hazard Index would be less than 0.3, well below the significance threshold of 10. The annual average PM<sub>2.5</sub> concentration would be 0.42 micrograms per cubic meter, less than the cumulative significance threshold of 0.8 micrograms per cubic meter.

To determine cumulative construction-phase impacts, the effects of project construction were combined with the impacts of the construction of reasonably foreseeable nearby development projects, where information about construction emissions from these projects exists or can be estimated. Reasonably foreseeable projects for purposes of the cumulative construction-phase air quality analysis are those that have filed formal applications or have construction schedules that may overlap with construction of the proposed project. The construction MEI at existing residential receptors about 100 feet to the northeast of the project site would be far enough away from most other nearby construction activities such that they would not be exposed cumulative impacts from the other construction; however, the two construction projects nearest the MEI, the Palace Hotel Project (2 New Montgomery Street) and SFMOMA Expansion (151 Third Street), could contribute to cumulative risks and hazards. These nearby construction activities are further discussed below.<sup>65</sup>

The pollutants generated during construction of the Palace Hotel Project and SFMOMA Expansion projects would contribute to temporarily increased concentrations of air pollutants and adverse impacts on ambient air quality, concurrent with those of the proposed project if construction occurs at the same time. The results assume concurrent construction of the proposed project and these other two projects. This is a conservative assumption because the projects have different development schedules and concurrent construction may not occur.

Table IV.G.15: Summary of Cumulative Health Risk and Hazards, below, shows the result of modeling for cumulative sources, for a child resident at the construction MEI (see also Table IV.G.7, p. IV.G.32, and Table IV.G.8, p. IV.G.34). In conjunction with the impacts of construction of reasonably foreseeable nearby development projects and other stationary and mobile sources in the area (from Table IV.G.11, p. IV.G.39), project construction would contribute to temporarily increased concentrations of air pollutants and adverse impacts on ambient air

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<sup>65</sup> Two other construction projects that would be within the BAAQMD “minimum offset distance” are the interior renovation of an existing building at 134-140 New Montgomery Street and the underground construction of the Central Subway Project along Fourth Street. As explained in the *Air Quality Technical Report* (pp. 30-31), these projects would not be likely to contribute substantially to cumulative construction-related air quality impacts.



**Table IV.G.15: Summary of Cumulative Health Risk and Hazards**

Sources	Excess Cancer Risk (per million)	Chronic Non-Cancer Hazard Index	Incremental Annual Average PM <sub>2.5</sub> (µg/m <sup>3</sup> )
Project Construction (Offsite MEI), Unmitigated	27.3	0.121	0.1998
Palace Hotel Project, Cumulative Construction Project	Up to 20	Up to 0.1	Up to 0.1
SFMOMA Expansion Project, Cumulative Construction Project	0.4	0.001	0.0003
Existing Permitted Sources - On-Site Residences (MEI)	11.8	0.013	0.0218
Existing Major Roadway Sources - On-Site Residences (MEI)	18.3	0.021	0.2239
On-site Diesel Back-up Generator (1,490 hp) - On-Site Residences (MEI)	5.6	0.0063	0.0104
<b>Total Sum, Project Unmitigated</b>	<b>77.8</b>	<b>0.256</b>	<b>0.55</b>
Project Construction (Offsite MEI), Mitigated	9.7	0.121	0.071
<b>Total Sum, Project Mitigated</b>	<b>60.2</b>	<b>0.256</b>	<b>0.42</b>
<b>Cumulative Significance Thresholds</b>	<b>100</b>	<b>10.0</b>	<b>0.8</b>
<b>Significant?</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: Aspen Environmental Group, 706 Mission Street Air Quality Technical Report, February 2012. ISC modeling results.

quality but would not exceed the cumulative thresholds for risk and hazards for the construction MEI.

Cumulative construction-phase risk and hazards would not exceed the cumulative thresholds, and therefore would not be cumulatively considerable. Although no mitigation measures are necessary for reducing cumulative construction-phase risk and hazards, the cumulative construction-phase impact would be further reduced with implementation of Mitigation Measure M-AQ-3 identified above for project construction emissions (Impact AQ-3).

Sensitive receptors would be exposed to air pollutant concentrations from the new sources related to operation of the proposed project, including the proposed back-up diesel engine and project-related traffic, plus sources that are reasonably foreseeable, along with existing sources including major roadways. To determine the maximum potential cumulative risks and hazards during operation, the effects of these new and existing sources at the project on-site MEI were added together. The currently proposed Palace Hotel Project could include additional emergency generators, but without a specific proposal, it would be speculative to assume the presence of any new or modified stationary sources. As such, existing sources were modeled (with results in Table IV.G.14, p. IV.G.43). Any new or modified stationary source associated with the Palace Hotel Project (or any other project) would be subject to BAAQMD permitting requirements, which would require a pre-construction review of toxic air contaminant impacts and would



require the source to minimize and avoid substantial health risks. Table IV.G.15 shows the result of refined modeling for foreseeable cumulative sources as they would affect the MEI receptors. Impacts from the project sources, including the on-site back-up generator, combined with other permitted sources and roadways results in an estimated cumulative cancer risk of 35.7 in one million, less than the cumulative significance threshold of 100 in one million. The cumulative chronic Hazard Index would be 0.04, below the significance threshold of 10. The cumulative incremental annual average  $PM_{2.5}$  concentration would be  $0.256 \mu g/m^3$ , less than the significance threshold of  $0.8 \mu g/m^3$ .

The combined effects of the sources would not expose sensitive receptors to an increased cancer risk above the significance threshold for cumulative risk, and receptors would not be exposed to incremental  $PM_{2.5}$  concentrations in excess of the cumulative-level  $PM_{2.5}$  threshold. The chronic non-cancer hazard would be minor in comparison to the potential cancer risk. Because sensitive receptors would not be exposed to increased cancer risk, hazards, or  $PM_{2.5}$  concentrations from nearby major roadways and stationary sources at levels exceeding the significance thresholds for cumulative impacts, the proposed project's contribution to significant impacts would not be cumulatively considerable, and no mitigation measures are necessary.



# EXHIBIT 4



## Environmental Health

### Article 38 of the San Francisco Health Code

Scientific studies consistently show an association between exposure to air pollution and significant human health problems. In 2008, San Francisco Health Code (HC) Article 38 was adopted to require new residential construction projects located in areas where models show poor air quality and pollution from roadways must install enhanced ventilation to protect residents from the respiratory, heart, and other health effects of living in a poor air quality area. The law was updated in 2014 to improve consistency with CEQA and streamline implementation.

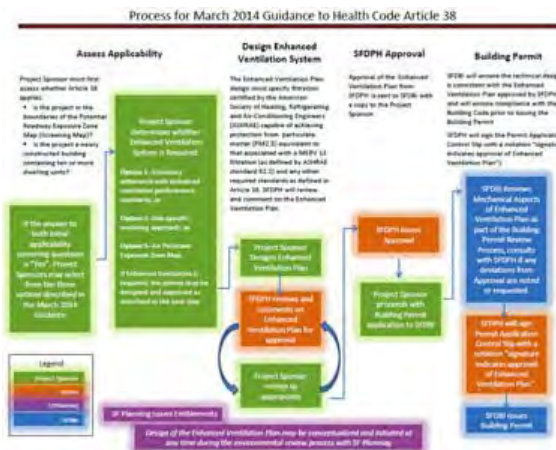
The 2014 amendments included revisions to the underlying map of the city's Air Pollution Exposure Zone--the end result of a collaborative effort with the Bay Area Air Quality Management District. The amendments codify the implementation strategy that was formalized in July 2013, when the Air Quality Program began providing several options for determining compliance with Article 38, described in our **Guidance for Project Sponsors**. New rules and regulations consistent with the 2014 amendments will be forthcoming.

Article 38 states that those buildings requiring enhanced ventilation "design a system capable of achieving the protection from particulate matter (PM<sub>2.5</sub>) equivalent to that associated with MERV 13 filtration (as defined by ASHRAE standard 52.2)". Building engineers and designers may choose the ventilation design that works best for their setting, as exemplified by **some of these examples of enhanced ventilation designs that comply with the requirements of Article 38**.

Project sponsors may refer to the **Air Pollutant Exposure Zone Map\*** to determine whether their project will be required to install enhanced ventilation.

Projects located within the Air Pollutant Exposure Zone must first **submit an application** to DPH prior to or at the beginning of the CEQA entitlement process with SF Planning.

The Ventilation Plan demonstrating compliance with Article 38 must be submitted to DPH for approval prior to submittal of plans to DBI for Mechanical Permit approval. Ventilation plans should include specific information as detailed in the guidance and should include: (1) Project location (address and parcel number); (2) Map of project including all surrounding streets within 500 feet; (3) Name of assigned planner to the project from the Planning Department; and (4) The **appropriate fee** in the form of a check payable to the San Francisco Environmental Health Section. Mail all requests to: Article 38 Air Quality Assessment Manager, 1390 Market Street, Suite 210, San Francisco, CA 94102.



### HELPFUL LINKS

#### San Francisco Health Code:

**Article 22B** Construction Dust

**Article 31** Hunters Point Shipyard

**Article 38** Enhanced Ventilation

#### San Francisco Public Works Code:

**Article 21** Construction Dust

#### California Codes

**Title 17 Chapter 1**

#### Other Websites

**California Air Resources Board**

**SF Air Quality Element**

**Community Air Risk Evaluation (CARE) Program**

#### Related Documents

**Article 38 Guidance** (pdf)

**Article 38 Application** (pdf)

**SFDPH Fee Schedule**

For buildings subject to the requirements of Article 38, enhanced ventilation must be provided to all units in a building, even those on the upper floors, as there is **compelling evidence that outdoor air quality at higher elevations is not consistently improved over air quality at street level**. In addition, a purpose of the local law is to align with CEQA mitigation requirements for new residential and sensitive uses in poor air quality areas.

\*Air Pollutant Exposure Zone information may also be found by visiting the Planning Department's **Property Information Page**; if Article 38 is applicable, an entry stating that will appear at the end of the list under "Other Information" on the "Zoning" tab as shown below:



10585



## Carroll, John (BOS)

---

**From:** Tom Lippe <lippelaw@sonic.net>  
**Sent:** Monday, November 30, 2015 9:59 AM  
**To:** BOS Legislation, (BOS)  
**Cc:** Carroll, John (BOS); dkelly@warriors.com; CPC-WarriorsAdmin; Givner, Jon (CAT); Stacy, Kate (CAT); Malamut, John (CAT); Nuru, Mohammed (DPW); Sanguinetti, Jerry (DPW); Sweiss, Fuad (DPW); Storrs, Bruce (DPW); Sanchez, Scott (CPC); Jones, Sarah (CPC); Rodgers, AnMarie (CPC); Starr, Aaron (CPC); Pearson, Audrey (CAT); Rahaim, John (CPC); Bollinger, Brett (CPC); Ionin, Jonas (CPC); kaufhauser@warriors.com; CMiller@stradasf.com; BOS-Supervisors; BOS-Legislative Aides; Calvillo, Angela (BOS); Somera, Alisa (BOS); Patrick Soluri; Osha Meserve; Susan Brandt-Hawley  
**Subject:** Re: Mission Bay Alliance, Warriors EIR CEQA Appeal; Appellants' Partial Brief, 2nd of 4 emails  
**Attachments:** Exhs 5-7 SENT Appeal EIR Brf Exhs 5-7.pdf  
**Categories:** 150990

Dear Clerk of the Board of Supervisors,

This email is the second of four. Attached are

- Exhibits 5-7 of 15 to Appellant's Partial Brief Re: Public Comment, Air Quality, Transportation, Water Quality, Biological, and Noise

Tom Lippe  
Law Offices of Thomas N. Lippe APC  
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On 11/30/2015 9:57 AM, Tom Lippe wrote:

Dear Clerk of the Board of Supervisors

Attached, in .pdf format please find the above referenced appeal brief with exhibits.

Due to the size of the files, the brief and exhibits it will be transmitted in four (4) separate emails.

This email is the first of four. Attached are

- Appellant's Partial Brief Re: Public Comment, Air Quality, Transportation, Water Quality, Biological, and Noise  
- Exhibits 1-4 of 15

Eighteen hard copies of same will be hand delivered to your office today by 12noon.



Thank you for your attention to this matter.

Tom Lippe  
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On 11/24/2015 9:25 AM, Carroll, John (BOS) wrote:

Good morning,

I am resending this message in order to update the recipients list for this and future document distributions. If you received this message previously, feel free to ignore these links; I have not updated them.

The Office of the Clerk of the Board has scheduled a hearing date for Special Order before the Board of Supervisors on **December 8, 2015, at 3:00 p.m.** Please find linked below a letter regarding the Final Subsequent Environmental Impact Report certification and Tentative Map appeals for the proposed Golden State Warriors Event Center Project, as well as direct links to the Office of Community Investment and Infrastructure's timely filing determination for the CEQA appeal.

[Clerk of the Board Letter Re: FSIER Appeal - November 23, 2015](#)  
[OCII Memo Re: FSEIR Appeal - November 16, 2015](#)

[Clerk of the Board Letter Re: Tentative Map Appeal - November 23, 2015](#)

I invite you to review the entirety of both matters on our [Legislative Research Center](#) by following the links below.

[Board of Supervisors File No. 150990 - FSEIR Appeal](#)  
[Board of Supervisors File No. 151204 - Tentative Map Appeal](#)

Thank you,

**John Carroll**  
**Legislative Clerk**  
Board of Supervisors  
San Francisco City Hall, Room 244  
San Francisco, CA 94102  
(415)554-4445 - Direct | (415)554-5163 - Fax  
[john.carroll@sfgov.org](mailto:john.carroll@sfgov.org) | [bos.legislation@sfgov.org](mailto:bos.legislation@sfgov.org)





Click [here](#) to complete a Board of Supervisors Customer Service Satisfaction form.

The [Legislative Research Center](#) provides 24-hour access to Board of Supervisors legislation and archived matters since August 1998.

**Disclosures:** *Personal information that is provided in communications to the Board of Supervisors is subject to disclosure under the California Public Records Act and the San Francisco Sunshine Ordinance. Personal information provided will not be redacted. Members of the public are not required to provide personal identifying information when they communicate with the Board of Supervisors and its committees. All written or oral communications that members of the public submit to the Clerk's Office regarding pending legislation or hearings will be made available to all members of the public for inspection and copying. The Clerk's Office does not redact any information from these submissions. This means that personal information—including names, phone numbers, addresses and similar information that a member of the public elects to submit to the Board and its committees—may appear on the Board of Supervisors website or in other public documents that members of the public may inspect or copy.*



# EXHIBIT 5



[Print](#)

## San Francisco Health Code

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## ARTICLE 38: ENHANCED VENTILATION REQUIRED FOR URBAN INFILL SENSITIVE USE DEVELOPMENTS

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- Sec. 3801. Short Title.
- Sec. 3802. Findings.
- Sec. 3803. Purposes and Goals.
- Sec. 3804. Definitions.
- Sec. 3805. Applicability of Article.
- Sec. 3806. Air Pollutant Exposure Zone and Air Pollutant Exposure Zone Map.
- Sec. 3807. Enhanced Ventilation Requirement.
- Sec. 3808. Maintenance of Documents by Department.
- Sec. 3809. Rules and Regulations.
- Sec. 3810. Maintenance and Disclosure Requirements.
- Sec. 3811. Fees.
- Sec. 3812. No Conflict with Federal or State Law.
- Sec. 3813. Severability.
- Sec. 3814. Undertaking for the General Welfare.

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### SEC. 3801. SHORT TITLE.

This Article shall be entitled Enhanced Ventilation Required for Urban Infill Sensitive Use Developments.

(Added by Ord. 281-08, File No. 080934, 12/5/2008; amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

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### SEC. 3802. FINDINGS.



- (a) Scientific studies show that exposure to particulate matter from air pollution leads to significant human health problems, including: aggravated asthma; chronic bronchitis; reduced lung function; irregular heartbeat; heart attack; and premature death in people with heart or lung disease. Exposure to air pollutants that are carcinogens can also have significant human health consequences. For example, exposure to diesel exhaust is an established cause of lung cancer.
- (b) Heart disease and stroke are the first and fourth leading causes of death in the U.S. respectively. Air pollution affects heart health and can trigger or contribute to heart attacks and strokes. One in three Americans has heart or blood vessel disease and is at higher risk from air pollution. Impacts on the lungs may take several forms. Short-term effects include deficits in lung function that can limit breathing, especially during exercise. Irritants from air pollution may cause airway constriction or chest tightening that is uncomfortable or limiting to normal activity. These changes in lung function are sometimes accompanied by underlying lung tissue inflammation which over the long term may lead to chronic lung disease. Exposure to air pollutants may be a contributing factor to leading causes of death recorded for San Francisco's population (ischemic heart disease; lung, bronchus and tracheal cancers; cerebrovascular disease; chronic obstructive pulmonary disease; hypertensive heart disease and lower respiratory infection).
- (c) Persons living in close proximity to air pollution sources, such as freeways or busy roadways, have poorer lung functions and are more susceptible to developing asthma and other respiratory problems, compared with persons living at a greater distance from such sources. The California Air Resources Board's 2005 Land Use Guidance document, "Air Quality and Land Use Handbook: A Community Health Perspective," reviewed traffic-related air pollution studies and found that particulate matter pollution levels decrease by about 70 percent at 500 feet from freeways and high-traffic roadways, defined as urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day.
- (d) Proximity to sources of air pollution increases exposure, and proximity to sources is established to be more common for the poor and for certain ethnic minorities.
- (e) Consequently, health vulnerability varies among neighborhoods and populations within San Francisco, as measured by population health records of air pollution-associated hospital discharges and emergency room visits, and non-accident mortality. Health vulnerable populations are likely to have more significant health consequences from air pollutant exposure compared to populations that are less vulnerable.
- (f) Existing regulatory control measures, often focused on new stationary sources of emissions and average regional air pollution concentrations, are not sufficient to address all local sources of exposure or disparities in exposure.
- (g) "Sensitive Use" buildings have the highest proportion of individuals who are most vulnerable to air pollutant exposures.
- (h) Available technologies exist to protect sensitive uses from air pollution health effects. Available and accepted air pollution modeling technology allows for the estimation of certain air pollutant concentrations for individual land parcels. Furthermore, available building ventilation and engineering technologies provide mechanisms to protect indoor environments from the infiltration of ambient air pollutants.

(Added by Ord. 281-08, File No. 080934, 12/5/2008; amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)



## **SEC. 3803. PURPOSES AND GOALS.**

(a) The purpose of this Article 38 is to protect the public health and welfare by establishing an Air Pollutant Exposure Zone and imposing an enhanced ventilation requirement for all urban infill sensitive use development within the Air Pollutant Exposure Zone.

(b) The goals of this Article 38 are to maintain and increase the stock of infill housing and other sensitive use development in the City while reducing the risk to human health from air pollutants among occupants of, and visitors to, buildings in the Air Pollutant Exposure Zone.

(Added by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

(Former Sec. 3803 redesignated as Sec. 3804 and amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

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## **SEC. 3804. DEFINITIONS.**

For the purposes of this Article 38, the following words shall have the following meanings:

"Air Pollutant Exposure Zone" means those areas within the City which, by virtue of their proximity to air pollution emissions sources, including Freeways, have substantially greater concentrations of air pollutants. The Air Pollutant Exposure Zone shall be modeled according to specific risk factors defined in the Rules and Regulations, and will include at a minimum, criteria for maximum allowed excess cancer risks and maximum PM<sub>2.5</sub> concentrations; these criteria shall be more stringent in Health Vulnerable Locations, as defined below.

"Building" means a building that contains a "Sensitive Use" and that is either:

- (1) a new building; or
- (2) a building undergoing a "Major Alteration to Existing Building" as defined by the San Francisco Green Building Code; or
- (3) a building undergoing a Planning Department permitted change of use.

"City" means the City and County of San Francisco.

"Department" means the San Francisco Department of Public Health.

"Director" means the Director of the San Francisco Department of Public Health or the Director's designee.

"Enhanced Ventilation" means a ventilation system capable of achieving the protection from particulate matter (PM<sub>2.5</sub>) equivalent to that associated with a Minimum Efficiency Reporting Value (MERV) 13 filtration (as defined by American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standard 52.2).



"Freeway" refers to freeways as defined in the San Francisco General Plan, Transportation Element.

"Health Vulnerable Locations" means those San Francisco zip codes, census tracts or other defined locations having the highest percentage of health vulnerable residents, based on criteria such as State discharge data from respiratory and cardiovascular related hospitalizations, non-accident mortality, or other criteria as determined by the Director and specified in the Rules and Regulations enacted under this Article.

"PM<sub>2.5</sub>" means solid particles and liquid droplets found in the air, that are less than or equal to 2.5 micrometers (µm) in diameter.

"Sensitive Use" means:

(1) any building or facility designed for residential use, including but not limited to those defined by City, state or federal law and regulations, excluding Tourist Hotels;

(2) any facility serving specific populations, including but not limited to California Department of Social Services (CDSS)-licensed Adult Day Care Centers, Adult Support Centers, Child Care Centers, Family Child Care Homes, Infant Care Centers, School-Aged Child Care Centers, and Community Treatment Centers;

(3) any California Department of Education (CDE)-licensed schools;

(4) any California Department of Public Health (CDPH)-licensed Health Care Facilities with 24-hour care, except for CDPH-licensed hospitals, which are subject to specific regulations;

(5) any California Building Code Section 305-defined occupancies of Educational Group E;

(6) any California Building Code Section 308-defined occupancies of Institutional Group I; and

(7) any California Building Code Section 310-defined occupancies of Residential Group R.

"Site" means a parcel of land as defined in the San Francisco Building Code.

(Added as Sec. 3803 by Ord. 281-08, File No. 080934, 12/5/2008; redesignated and amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

(Former Sec. 3804 redesignated as Sec. 3805 and amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

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## **SEC. 3805. APPLICABILITY OF ARTICLE.**

This Article 38 shall apply to Sensitive Use buildings located on a site identified as within the Air Pollutant Exposure Zone that are either:

(a) Newly constructed; or

(b) Undergoing a "Major Alteration to Existing Building" as defined by the San Francisco Green Building Code; or



(c) The subject of an application for a Planning Department-permitted Change of Use.

(Added as Sec. 3804 by Ord. 281-08, File No. 080934, 12/5/2008; redesignated and amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

(Former Sec. 3805 redesignated as Sec. 3806 and amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

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## **SEC. 3806. AIR POLLUTANT EXPOSURE ZONE AND AIR POLLUTANT EXPOSURE ZONE MAP.**

(a) The Director shall create an Air Pollutant Exposure Zone Map according to Rules and Regulations as authorized by Section 3809. The Air Pollutant Exposure Zone Map shall depict all locations in the City where the estimated cumulative PM<sub>2.5</sub> concentration is greater than 10 µg/m<sup>3</sup> or where the estimated cumulative excess risk of cancer from air pollutants resulting from lifetime (70 year) exposure is greater than 100 in a million. Additionally, the Air Pollutant Exposure Zone Map shall include all locations within 500 feet of any Freeway, if those locations were not otherwise captured by modeling estimates. Within Health Vulnerable Locations, the Air Pollutant Exposure Zone Map shall depict all locations where the estimated cumulative PM<sub>2.5</sub> concentration is greater than 9 µg/m<sup>3</sup> or where the estimated cumulative excess risk of cancer from air pollutants resulting from lifetime (70 year) exposure is greater than 90 in a million. The Director shall update the Air Pollutant Exposure Zone Map to identify new sources, updated pollutant standards, additional pollutants and standards for those pollutants, and updated methodologies in accordance with Section 3809 and the accompanying Rules and Regulations for this Article 38.

(b) The Director shall, at least once every five years, update the Rules and Regulations governing creation of the Air Pollutant Exposure Zone Map to account for changes in information including, but not limited, to:

- (1) Information available to estimate air pollutants of health concern;
- (2) Information available to determine Health Vulnerable Locations; and
- (3) Information that may affect delineation of the Air Pollutant Exposure Zone, including, but not limited to:
  - (A) Construction, expansion or modification of major roadways;
  - (B) Changes in traffic patterns in the City's roadway system;
  - (C) Changes in area sources or siting of industrial or commercial sources of air pollution; and
  - (D) Climatic factors for which there is evidence of changes to air quality.

(c) The Director shall post the Air Pollutant Exposure Zone Map on the Department's website, and make paper copies of the map available to the public upon request.

(d) In creating and updating the Air Pollutant Exposure Zone Map, the Director shall follow the procedures specified in Section



3809.

(e) The Air Pollutant Exposure Zone Map that is operative as of the effective date of Ordinance No. [224-14](#) amending this Article 38, is on file with the Clerk of the Board of Supervisors in File No. 140806.

(Added as Sec. 3805 by Ord. 281-08, File No. 080934, 12/5/2008; redesignated and amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

(Former Sec. 3806 added by Ord. 281-08, File No. 080934, 12/5/2008; repealed by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

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## **SEC. 3807. ENHANCED VENTILATION REQUIREMENT.**

(a) Any person or entity to whom this Article 38 applies, as defined in Section 3805, shall submit to the Director an Enhanced Ventilation Proposal, prepared by, or under the supervision of, a licensed mechanical engineer or other individual authorized by the California Business and Professions Code Sections 6700-6799 (Professional Engineers Act) to design mechanical ventilation systems that meet the requirements of this Article 38 and San Francisco Building Code Section 1203.5. An Enhanced Ventilation Proposal shall include the name, title and license number of the person submitting such proposal.

(b) The Enhanced Ventilation Proposal shall explain how the project will achieve the standards mandated by this Article 38 and accompanying the Rules and Regulations as described and updated according to Section 3809, San Francisco Building Code Section 1203.5, and any relevant amendments or revisions thereto. The Enhanced Ventilation Proposal shall include a statement signed by the person who prepared it, in accordance with the requirements of Section 3807(a), certifying that in his or her judgment the ventilation system proposed will be capable of achieving the protection from particulate matter (PM<sub>2.5</sub>) equivalent to that associated with MERV 13 filtration (as defined by ASHRAE standard 52.2). In updates to the Rules and Regulations, the Director may specify additional or alternative protective equivalents as technology and research dictate.

(c) The Director shall review the Enhanced Ventilation Proposal and may require additional modification or justification prior to the Director's approval. The Director shall issue a letter to the Department of Building Inspection Permit Services Energy/Mechanical Plan Review Section identifying and attaching the letter describing the approved Enhanced Ventilation Proposal.

(d) Building permit documents submitted to the Department of Building Inspection shall incorporate all designs and details necessary for the construction of the approved Enhanced Ventilation system. The Department of Building Inspection shall review submitted plans to assure compliance with the Director-approved Enhanced Ventilation proposal and shall not issue permits for the construction, installation, or modification of the Enhanced Ventilation systems unless it is in compliance with the approved proposal.

(Added by Ord. 281-08, File No. 080934, 12/5/2008; amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

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## **SEC. 3808. MAINTENANCE OF DOCUMENTS BY DEPARTMENT.**

The Enhanced Ventilation Proposal, Certification and related documents shall become part of the file maintained by the Department. Such file shall be available to the public upon request.



(Added by Ord. 281-08, File No. 080934, 12/5/2008; amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

## SEC. 3809. RULES AND REGULATIONS.

- (a) Within 90 days after the effective date of Ordinance No. [224-14<sup>1</sup>](#), amending Article 38, the Director shall issue Rules and Regulations necessary to effectuate the purposes of this Article and to protect public health and safety. Any person or entity as defined in Section 3805 shall comply with this Article, the Rules and Regulations, and all applicable local, state, and federal laws.
- (b) The Director shall consult with the Planning Department's Environmental Review Officer at least 30 days prior to initiating any amendments or modifications to the Rules and Regulations.
- (c) The Director shall consult with the Municipal Green Building Task Force, as established in Environment Code Sec. 702, or any successor body, to coordinate and resolve any potential conflicts that may arise between the San Francisco Green Building Code and this Article 38.
- (d) Rules and Regulations shall, at a minimum, meet the following standards and criteria:
- (1) The criteria used for the definition of "Health Vulnerable Locations" shall be at least as health-protective as that of the Bay Area Air Quality Management District (BAAQMD) methodology. BAAQMD methodology defines those zip codes in San Francisco in the worst quintile of Bay Area health vulnerability scores based on two years of statewide hospitalization and emergency room visit records, and estimated costs, for the following air pollution related conditions per zip code: Chronic Obstructive Pulmonary Disease (COPD) Hospital Admissions, Pneumonia Hospital Admissions, Myocardial Infarction (MI, Heart Attack) Hospital Admissions and Emergency Room Visits, Cardiovascular Hospital Admissions (less MI), Asthma Emergency Hospital Admissions and Emergency Room Visits, Asthma Hospital Admissions, Hospital Admissions for Respiratory Diseases, combined with the non-accident mortality rate per zip code. For San Francisco, based on 2009-2011 health records, the zip codes in the worst quintile of Bay Area health vulnerability scores are 94102, 94103, 94105, 94124, and 94130. In updates to the Rules and Regulations, the Director may modify the methodology to identify Health Vulnerable Locations as required to ensure the Air Pollutant Exposure Zone Map is consistent with current scientific evidence.
  - (2) The criteria for creating and updating the Air Pollutant Exposure Zone Map and the models underlying this map shall include, but not be limited to:
    - (A) Identification of parcels with lifetime excess cancer risk due to air pollution greater than 100 cases per million population.
    - (B) Identification of parcels in Health Vulnerable Locations with lifetime excess cancer risk due to air pollution greater than 90 cases per million population.
    - (C) Identification of parcels where PM<sub>2.5</sub> concentrations are greater than 10 µg/m<sup>3</sup> (including ambient levels).
    - (D) Identification of parcels in Health Vulnerable Locations where PM<sub>2.5</sub> concentrations are greater than 9 µg/m<sup>3</sup> (including



ambient levels).

(E) Identification of parcels within 500 feet of any Freeway, if those locations were not otherwise captured by modeling estimates.

(F) New research findings, particularly quantification of risk, that change the Director's knowledge of how particulate matter and any other air pollutants affect public health.

(3) Required performance standards for Enhanced Ventilation Proposals must include the following minimum criteria:

(A) Location of air intake for HVAC (Heating, Ventilation and Air Conditioning systems) away from air pollution sources;

(B) Specification of filtration certified by the ASHRAE capable of achieving protection from particulate matter (PM<sub>2.5</sub>) equivalent to that associated with a MERV 13 filtration (as defined by ASHRAE standard 52.2).

(4) Additional criteria for Enhanced Ventilation Proposals may include the following project design information:

(A) Number of air exchanges per hour of outside filtered air;

(B) Building materials and/or design that limit unfiltered infiltration of outside air, such as air sealing or maintenance of positive pressure within the building interior;

(C) Location of operable windows oriented away from air pollutant sources, to the extent feasible;

(D) Other building design criteria that may reduce air pollution exposure to residents;

(E) Other combinations of technologies and designs to achieve the goals of this Article.

(5) Certification and/or licensing requirements for the persons who prepare the Enhanced Ventilation Proposals pursuant to Section 3807. The Enhanced Ventilation Proposal must be prepared by, or under the responsible charge of a person who is authorized by California Business and Professions Code Sections 6700-6799 (Professional Engineers Act), or any successor provisions, to design mechanical ventilation systems that meet the requirements of this Article 38 and San Francisco Building Code Section 1203.5 and either:

(A) a licensed mechanical engineer, or

(B) an individual authorized by California Business and Professions Code Sections 6700-6799 to design mechanical ventilation systems that meet the requirements of this Article 38 and San Francisco Building Code Section 1203.5.

(6) Minimum criteria for maintenance and disclosure, including but not limited to:

(A) Minimum standards for proper maintenance, and



(B) Disclosure to buyers, lessees and renters that the building is located in an area with substantial concentrations of air pollutants, and that the building includes an enhanced ventilation system information about the proper use of the installed enhanced ventilation system.

(e) The Director may specify additional or alternative equivalents as justified by accepted research including:

(1) addition or substitution of risk factor criteria;

(2) inclusion of other pollutants such as Nitrogen Dioxide.

(f) Within Health Vulnerable Locations, the Director shall specify more protective requirements in the Air Pollutant Exposure Zones.

(g) The Director may grant variances to this Article 38, on a case-by-case basis.

(Added by Ord. 281-08, File No. 080934, 12/5/2008; amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

#### CODIFICATION NOTE

1. Blank in Ord. [224-14](#); ordinance number inserted by the codifier.

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## **SEC. 3810. MAINTENANCE AND DISCLOSURE REQUIREMENTS.**

(a) The ventilation systems installed pursuant to Section 3807 shall be properly maintained, following standard practices, and as specified by the manufacturer.

(b) Documentation of the installation and/or maintenance of the enhanced ventilation systems shall be preserved for five years after installation.

(c) Failure to properly maintain the enhanced ventilation systems is subject to enforcement and possible penalties under the Health Code Article 11, Nuisances, or other applicable sections.

(d) Disclosure to buyers, lessees and renters shall be made in accordance with Rules and Regulations as specified in Section 3809(d)(6).

(Added by Ord. 281-08, File No. 080934, 12/5/2008; amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

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## **SEC. 3811. FEES.**

(a) Review and approval of an Enhanced Ventilation Proposal . . . \$984.00

(b) Additional consultation, document review or inspection . . . \$225.00 per hour



(Added by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

(Former Sec. 3811 added by Ord. 281-08, File No. 080934, 12/5/2008; redesignated as Sec. 3812 by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

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## **SEC. 3812. NO CONFLICT WITH FEDERAL OR STATE LAW.**

Nothing in this Article shall be interpreted or applied so as to create any requirement, power, or duty in conflict with any federal or state law.

(Added as Sec. 3811 by Ord. 281-08, File No. 080934, 12/5/2008; redesignated by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

(Former Sec. 3812 added by Ord. 281-08, File No. 080934, 12/5/2008; redesignated as Sec. 3813 by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

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## **SEC. 3813. SEVERABILITY.**

If any section, subsection, sentence, clause, or phrase of this Article 38 is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the Article. The Board of Supervisors hereby declares that it would have passed this Article and each and every section, subsection, sentence, clause, or phrase not declared invalid or unconstitutional without regard to whether any portion of this Article would be subsequently declared invalid or unconstitutional.

(Added as Sec. 3812 by Ord. 281-08, File No. 080934, 12/5/2008; redesignated by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

(Former Sec. 3813 added by Ord. 281-08, File No. 080934, 12/5/2008; redesignated as Sec. 3814 and amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)

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## **SEC. 3814. UNDERTAKING FOR THE GENERAL WELFARE.**

In adopting and implementing this Article 38, the City is assuming an undertaking only to promote the general welfare. It is not assuming, nor is it imposing in its officers and employees, an obligation for breach of which it is liable in money damages to any person who claims that such breach proximately caused injury.

(Added as Sec. 3813 by Ord. 281-08, File No. 080934, 12/5/2008; redesignated and amended by Ord. [224-14](#), File No. 140806, App. 11/7/2014, Eff. 12/7/2014)



# EXHIBIT 6





# SAN FRANCISCO PLANNING DEPARTMENT

**MEMO**

DATE: July 29, 2015  
TO: Mike Grisso, KR Flower Mart, LLC  
FROM: Joshua Switzky, Planning Department  
RE: PPA Case No. 2015-001903PPA / 2015-004256PPA for  
630-698 Brannan Street

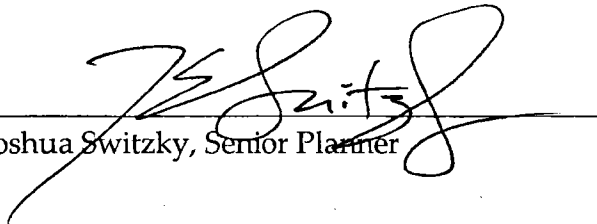
1650 Mission St.  
Suite 400  
San Francisco,  
CA 94103-2479

Reception:  
415.558.6378

Fax:  
415.558.6409

Planning  
Information:  
415.558.6377

Please find the attached Preliminary Project Assessment (PPA) for the address listed above. You may contact the staff contact, Lisa Chen, at (415) 575-9124 or [lisa.chen@sfgov.org](mailto:lisa.chen@sfgov.org), to answer any questions you may have, or to schedule a follow-up meeting.

  
Joshua Switzky, Senior Planner









# SAN FRANCISCO PLANNING DEPARTMENT

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## Preliminary Project Assessment

*Date:* July 23, 2015 (revised: July 29, 2015)  
*Case No.:* **2015-001903PPA / 2015-004256PPA**  
*Project Address:* 630-698 Brannan Street  
*Block/Lot:* 3778/001B, 002B, 004 and 005  
*Zoning:* SALI (Service/Arts/Light Industrial) Zoning District  
40/55-X Height and Bulk District  
Western SoMa Special Use District  
*Existing Area Plan:* Western SoMa Community Plan;  
*Proposed Area Plan:* Central SoMa Plan (Draft)  
*Project Sponsor:* Mike Grisso, KR Flower Mart, LLC  
415-243-8803  
*Staff Contact:* Lisa Chen, 415-575-9124  
[lisa.chen@sfgov.org](mailto:lisa.chen@sfgov.org)

1650 Mission St.  
Suite 400  
San Francisco,  
CA 94103-2479

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Fax:  
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Planning  
Information:  
**415.558.6377**

### DISCLAIMERS:

Please be advised that this determination does not constitute an application for development with the Planning Department. It also does not represent a complete review of the proposed project, a project approval of any kind, or in any way supersede any required Planning Department approvals listed below. The Planning Department may provide additional comments regarding the proposed project once the required applications listed below are submitted. While some approvals are granted by the Planning Department, some are at the discretion of other bodies, such as the Planning Commission or Historic Preservation Commission. Additionally, it is likely that the project will require approvals from other City agencies such as the Department of Building Inspection, Department of Public Works, Department of Public Health, San Francisco Public Utilities Commission, and others. The information included herein is based on plans and information provided for this assessment and the Planning Code, General Plan, Planning Department policies, and local/state/federal regulations as of the date of this document, all of which are subject to change.

### PROJECT DESCRIPTION:

The project sponsor submitted PPA applications in February 2015 and April 2015, proposing two design variations for the same site. Except where noted, comments in this letter shall apply to both project proposals.

The project would demolish one existing single story warehouse-style building, four single-story with mezzanine buildings, two single-story retail/warehouse buildings, and one single-story industrial building – totaling 157,541 sq. ft. on four adjoining lots – all of which are part of the existing the San Francisco Flower Mart. The first proposal ("February 2015 proposal") would construct a 1,814,950 sq. ft. mixed-use development, consisting of: (1) three stepped buildings ranging in height from 65 feet to 250 feet with 1,492,450 GSF of office space and 45,800 GSF of ground floor retail (which includes 10,000 sq. ft.



of San Francisco Flower Mart retail space); (2) 115,000 leasable sq. ft. of below-grade warehouse space that would be occupied by the San Francisco Flower Mart; (3) 20,000 sq. ft. of below-grade loading space and 17,500 sq. ft. on-grade truck parking for the San Francisco Flower Mart; (3) 110,000 sq. ft. below-grade parking; and, (4) 14,200 sq. ft. of on-grade office and retail loading. Vehicle access to the underground parking garage and the Flower Mart is proposed on Morris Street (off of Sixth Street), with trucks exiting on the shared private alley and continuing onto Fifth Street. Two levels of below grade parking would accommodate 300 parking spaces, of which 150 spaces would be designated for exclusive Flower Mart use. The project also includes two public plazas totaling 34,175 sq. ft. facing Brannan Street and in the center of the project, which will create mid-block pedestrian connections to Morris Street and to a shared private alley to the north of the property.

The project sponsor also submitted a subsequent application for a Preliminary Project Assessment ("April 2015 proposal") with a project variant that maintains the SF Flower Mart location at street level. This proposal elevates the office towers above a 24' podium that would house the SF Flower Mart and associated retail spaces. The profiles and spacing of the office towers would remain the same; however, the maximum heights would increase, ranging from 77 to 271 feet, and the project square footages would change slightly, featuring: (1) 1,512,260 GSF of office space, (2) 29,550 GSF of ground floor retail, (3) 115,000 GSF of warehouse space for the Flower Mart; and, (4) 147,450 GSF of below-grade parking (accommodating approximately 350 parking spaces, including 25 truck parking spaces for use by Flower Mart tenants). Under this proposal, the northern plaza would be elevated above the 24' podium, with terraces stepping down to the street-level plaza facing Brannan Street. In addition, in lieu of at-grade parking for the Flower Mart, spaces would be designated for truck loading on the shared private alley on the northern edge of the site.

## PLANNING CONTEXT:

The proposed project is located within the Western SoMa Community Plan, which was evaluated in the *Western SoMa Community Plan, Rezoning of Adjacent Parcels, and 350 8th Street Project Environmental Impact Report (Western SoMa PEIR)*, certified in 2012.<sup>1</sup> The project site also lies within the proposed Central SoMa Plan area, a community planning process initiated in 2011. The Central Corridor Plan Draft for Public Review<sup>2</sup> (Draft Plan) was released in April 2013, with proposed changes to the allowed land uses and building heights in the Plan area, including a strategy for improving the public realm within the Plan area and vicinity. The Draft Plan is available for download at <http://centralsoma.sfplanning.org>. The Central SoMa Plan will be evaluated in an Environmental Impact Report (EIR), which is currently underway. The Draft Plan and its proposed rezoning are anticipated to be before decision-makers for approval in 2016.

The existing zoning for the project site is SALI (Service/Arts/Light Industrial), which does not allow office uses, while the proposed use district for the project site in the Draft Plan is Mixed-Use Office (MUO),

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<sup>1</sup> Available for review on the Planning Department's Area Plan EIRs web page: <http://www.sf-planning.org/index.aspx?page=1893>.

<sup>2</sup> Please note that the Central SoMa Plan was formerly called the Central Corridor Plan. To avoid ambiguity, this letter uses the current "Central SoMa Plan" when referring to the ongoing planning process, while "Draft Plan" refers to the document published in April 2013 under the name "Central Corridor Plan Draft for Public Review."



which would allow office uses as well as the other uses proposed under the project. The Draft Plan includes two height alternatives. The Central SoMa Plan EIR will study the Draft Plan's Mid-Rise Height Alternative and a modified High-Rise Height Alternative, which include different proposed height limits for the project site. Under the Mid-Rise Height Alternative the proposed height designation for the site is 55/65/85, which would allow buildings up to 85 feet tall on some portions of the project site, while under the modified High-Rise Height Alternative the EIR will study development of buildings up to 270 feet on the project site. At this point, it is unknown which height option, if any, would ultimately be approved by the Planning Commission and Board of Supervisors. Further Central SoMa Plan-related comments in this PPA are based on the Draft Plan concepts published to date, which are contingent on the approval of the proposed Central SoMa Plan rezoning by the Planning Commission and Board of Supervisors.

## ENVIRONMENTAL REVIEW:

The proposed project requires environmental review either individually, with a project-specific Initial Study/Mitigated Negative Declaration or Environmental Impact Report (EIR), or in a Community Plan Exemption (CPE) if the project is consistent with an adopted community plan (see the discussion under "Community Plan Exemption" below). The proposed project is located within the Western SoMa Area Plan, which was evaluated in the *Western SoMa PEIR*. However, the proposed project is not consistent with the land use or development density (zoning) identified in the Western SoMa Area Plan, and it is therefore not eligible for a CPE under the *Western SoMa PEIR*.

The project's proposed building heights range from 65 to 250 feet for the below-grade Flower Mart configuration (February 2015) and from 77 to 271 feet for the street-level Flower Mart configuration (April 2015). These heights would both be consistent with the High-Rise Height Alternative studied in the Central SoMa Plan EIR. Thus, it is possible that the proposal, as currently presented, would qualify for a CPE under the proposed Central SoMa Plan EIR once that EIR is certified and the Planning Commission and Board of Supervisors have adopted new zoning controls. However, the proposed project would be assessed based on the height limits for the project site in place at the time that the Planning Department entitlements for the proposed project are sought.

Due to the project's location within the geographic area evaluated in the *Western SoMa PEIR*, any development on the project site would potentially be subject to the mitigation measures identified in that document. Potentially significant project environmental impacts that were identified in and pertinent mitigation measures and CEQA findings from the *Western SoMa PEIR* that may be applicable to the proposed project are discussed below, under the applicable environmental topic. However, mitigation measures from the *Western SoMa PEIR* that are applicable to the proposed project area could be refined, augmented, or superseded under the future Central SoMa Plan EIR, which would become applicable to the proposed project upon approval of the Draft Plan.

### *Community Plan Exemption*

Section 15183 of the California Environmental Quality Act (CEQA) Guidelines states that projects that are consistent with the development density established by a community plan for which an environmental impact report (EIR) was certified do not require additional environmental review, except as necessary to determine the presence of project-specific significant effects not identified in the programmatic plan area



EIR. A CPE may be prepared for such projects. Please note that a CPE is a type of exemption from environmental review, and cannot be modified to reflect changes to a project after approval. Proposed increases beyond the CPE project description in project size or intensity after project approval will require reconsideration of environmental impacts and issuance of a new CEQA determination.

Within the CPE process, there can be three different outcomes as follows:

1. **CPE Only.** All potentially significant project-specific and cumulatively considerable environmental impacts are fully consistent with significant impacts identified in the underlying area plan EIR (assumed here to be the Central SoMa Plan EIR), and there would be no new "peculiar" significant impacts unique to the proposed project. In these situations, all pertinent mitigation measures and CEQA findings from the in the underlying area plan FEIR are applied to the proposed project, and a CPE checklist and certificate is prepared. With this outcome, the applicable fees are: (a) the CPE determination fee (currently \$13,659) and (b) the CPE certificate fee (currently \$7,580). (The Planning Department schedule of application fees may be downloaded at: <http://www.sf-planning.org/Modules/ShowDocument.aspx?documentid=513>)
2. **Mitigated Negative Declaration.** If new site- or project-specific significant impacts are identified for the proposed project that were not identified in the underlying area plan EIR, and if these new significant impacts can be mitigated to a less-than-significant level, then a focused mitigated negative declaration is prepared to address these impacts, and a supporting CPE checklist is prepared to address all other impacts that were encompassed by the underlying area plan EIR, with all pertinent mitigation measures and CEQA findings from the underlying area plan EIR also applied to the proposed project. With this outcome, the applicable fees are: (a) the CPE determination fee (currently \$13,659) and (b) the standard environmental evaluation fee (which is based on construction value).
3. **Focused EIR.** If any new site- or project-specific significant impacts cannot be mitigated to a less-than-significant level, then a focused EIR is prepared to address these impacts, and a supporting CPE checklist is prepared to address all other impacts that were encompassed by the underlying area plan EIR, with all pertinent mitigation measures and CEQA findings from the underlying area plan EIR also applied to the proposed project. With this outcome, the applicable fees are: (a) the CPE determination fee (currently \$13,659); (b) the standard environmental evaluation fee (which is based on construction value); and (c) one-half of the standard EIR fee (which is also based on construction value). An EIR must be prepared by an environmental consultant from the Planning Department's environmental consultant pool ([http://www.sfplanning.org/ftp/files/MEA/Environmental\\_consultant\\_pool.pdf](http://www.sfplanning.org/ftp/files/MEA/Environmental_consultant_pool.pdf)). The Planning Department will provide more detail to the project sponsor regarding the EIR process should this level of environmental review be required.

As discussed above, the proposed project is located within the proposed Central SoMa Plan Area, which is under evaluation in the forthcoming Central SoMa Plan EIR; if the proposed project is consistent with the development density identified in the Central SoMa Plan, it may be eligible for a CPE. If the proposed 630-698 Brannan Street project is not consistent with the height and density identified for the project site in the adopted Central SoMa Plan, it would be precluded from qualifying for a CPE under the Central SoMa Plan. The proposed project would be analyzed in a separate environmental document that would not rely on the environmental analysis undertaken for the Central SoMa Plan. In this case, the applicable



fees would be (a) the standard environmental evaluation (EE) fee based on the cost of construction; and (b) the standard EIR fee, if an EIR is required.

In order to begin formal environmental review, please submit an **Environmental Evaluation Application (EEA)**. The EEA can be submitted at the same time as the PPA Application. The environmental review may be done in conjunction with the required approvals listed below, but must be completed before any project approval may be granted. **Note that until an entitlement application is submitted to the Current Planning Division, only the proposed Project Description will be reviewed by the assigned Environmental Coordinator.** EEAs are available in the Planning Department lobby at 1650 Mission Street, Suite 400, at the Planning Information Center at 1660 Mission Street, and online at [www.sfplanning.org](http://www.sfplanning.org) under the "Publications" tab. See "Environmental Applications" on page 2 of the current Fee Schedule for a calculation of environmental application fees.<sup>3</sup>

Below is a list of topic areas that would require additional study based on the preliminary review of the project as it is proposed in the PPA application. This discussion is applicable to both the February 2015 and April 2015 project proposals, except as noted.

1. **Historic Resources.** The project site contains one or more structures considered to be a potential historic resource (a building constructed 45 or more years ago). The property was surveyed as part of the South of Market Historic Resources Survey and identified for potential architectural and cultural significance, but was not fully evaluated at that time. Therefore, the proposed demolition is subject to review by the Department's Historic Preservation staff. To assist in this review, the project sponsor must hire a qualified professional to prepare a Historic Resource Evaluation (HRE) report. The professional must be selected from the Planning Department's Historic Resource Consultant Pool. Please contact Tina Tam, Senior Preservation Planner, via email at [tina.tam@sfgov.org](mailto:tina.tam@sfgov.org) for a list of three consultants from which to choose. Please contact the HRE scoping team at [HRE@sfgov.org](mailto:HRE@sfgov.org) to arrange the HRE scoping process. The historic resource consultant should submit the draft HRE report for review to Environmental Planning after the project sponsor has filed the EEA and update it as necessary to reflect feedback received in the PPA letter. Historic Preservation staff will not begin reviewing your project until a complete HRE is received.

The Western SoMa PEIR identified two mitigation measures to minimize construction impacts of new development projects on historic resources within 25 feet for non-pile driving activities and 100 feet for pile driving activities: *M-CP-7a: Protect Historical Resources from Adjacent Construction Activities* and *M-CP-7b: Construction Monitoring Program for Historical Resources*. These mitigation measures require an evaluation to determine whether special construction measures are necessary to protect nearby historic resources, as well as implementation of a construction monitoring program for those historic resources. The closest known historic resource is located adjacent to the project site at 701 Bryant Street (3778/001). Therefore, these mitigation measures would apply to the proposed project.

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<sup>3</sup> San Francisco Planning Department. *Schedule for Application Fees*. Available online at: <http://www.sf-planning.org/Modules/ShowDocument.aspx?documentid=513>.



2. **Archeological Resources.** Project implementation would include soil-disturbing activities associated with building construction, including excavation to a depth of approximately 25 feet below grade for construction of the underground parking, loading, and Flower Mart operational areas under the February 2015 below-grade Flower Mart scenario, and up to 15 feet for underground parking and loading under the April 2015 street-level Flower Mart scenario. The project site is located within an area where no previous archeological survey has been prepared. The Western SoMa PEIR noted that California Register of Historical Resources (CRHR)-eligible archeological resources are expected to be present within existing sub-grade soils of the Plan Area and the proposed land use policies and controls within the Plan Area could adversely affect significant archeological resources.

Because of the depth of excavation under either the below-grade or street-level Flower Mart configuration, *Western SoMa PEIR Archeological Mitigation Measure M-CP-4a: Project-Specific Preliminary Archeological Assessment* and *M-CP-4b: Procedures for Accidental Discovery of Archeological Resources* would be applicable to the proposed project. *Mitigation Measure M-CP-4a* requires that a Preliminary Archeology Review (PAR) be prepared by the Planning Department archeologist. Based on the PAR, the Environmental Review Officer (ERO) would determine if an Archeological Research Design/Treatment Plan (ARDTP) is required to more definitively identify the potential for CRHR-eligible archeological resources to be present within the project site and to determine the appropriate action necessary to reduce the potential effects of the project on archeological resources to a less-than-significant level. If an ARDTP is required, the scope of the ARDTP will be determined in consultation with the ERO. The Planning Department archeologist will be informed by the geotechnical study of the project site's subsurface geological conditions. (See Geotechnical Study below.) *Mitigation Measure M-CP-4b* outlines procedures for ensuring that appropriate actions are taken in the event that an accidental discovery of archeological resources occurs during the construction of the project.

3. **Transportation.** Based on the Planning Department's Transportation Impact Analysis Guidelines for Environmental Review, the project would require additional transportation analysis to determine whether the project may result in a significant impact.<sup>4</sup> Therefore, the Planning Department requires that a consultant listed in the Planning Department's Transportation Consultant Pool prepare a Transportation Impact Study. You are required to pay additional fees for the study; please contact Virnaliza Byrd at (415) 575-9025 to arrange payment. Once you pay the fees, please contact Manoj Madhavan at (415) 575-9095 or [manoj.madhavan@sfgov.org](mailto:manoj.madhavan@sfgov.org) so that he can provide you with a list of three consultants from the pre-qualified Transportation Consultant Pool. Upon selection of a transportation consultant, the Department will assign a transportation planner who will direct the scope of the consultant-prepared study.

Additionally, the proposed project is located on a high injury corridor as mapped by Vision Zero.<sup>5</sup> Planning staff have reviewed the proposed site plans and request the following clarification and offer the following requests, some of which address the safety of persons walking and bicycling to and from the project site and vicinity:

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<sup>4</sup> This document is available at: <http://www.sf-planning.org/index.aspx?page=1886>.

<sup>5</sup> This document is available at: <http://www.sfmta.com/sites/default/files/projects/2015/vision-zero-san-francisco.pdf>.



- Schedule a site visit by Planning staff will be needed in order to identify pedestrian-related safety issues.
- Clarify what is meant by “semi-queueing” in the PPA application project description.
- Clarify whether new on-street parking spaces on Brannan, 5<sup>th</sup>, and 6<sup>th</sup> streets are proposed as Flower Mart loading areas.
- Coordinate any streetscape or roadway improvements with the Central SoMa EIR team as well as Citywide Planning and the San Francisco Municipal Transportation Agency (SFMTA). (See the Preliminary Project Comments and Preliminary Design Comments sections for further discussion.)
- Clarify parking space dimensions and confirm that “SV” notation on plans indicates service vehicle spaces.
- Ensure project design conforms with pedestrian-related policies and design guidelines, especially as the project site is adjacent to high-injury corridors.
- Clearly label alleys on site plans.

Please include the requested information with the EEA and coordinate with the assigned environmental and transportation planners regarding streetscape/roadway and pedestrian improvements.

4. **Noise.** The proposed project would include commercial/light industrial uses that could generate noise levels in excess of ambient noise, either short term, at nighttime, or as a 24-hour average, in the project site vicinity. It would therefore be subject to *Western SoMa PEIR Noise Mitigation Measure M-NO-1c: Siting of Noise-Generating Uses*, which is intended to reduce potential conflicts between existing sensitive receptors and new noise-generating uses. *Mitigation Measure M-NO-1c* requires that a noise analysis be prepared for a new development that could generate noise prior to the first project approval action. The mitigation measure requires that such an analysis include, at a minimum, a site survey to identify potential noise-sensitive uses within 900 feet of, and that have a direct line-of-sight to, the project site. At least one 24-hour noise measurement must be included in the analysis. The analysis must be prepared by person(s) qualified in acoustical analysis and/or engineering and must demonstrate with reasonable certainty that the proposed use would comply with the use compatibility requirements of the San Francisco General Plan and Police Code Section 2909, that the proposed use would not adversely affect nearby noise-sensitive uses, and that there are no particular circumstances about the project site that appear to warrant heightened concern about noise levels that would be generated by the proposed use. Should such concerns be present, the Planning Department may require the completion of a detailed noise assessment by person(s) qualified in acoustical analysis and/or engineering prior to the first project approval action, and may require implementation of site-specific noise reduction features or strategies.

Construction of the proposed project would generate noise. While construction noise is temporary in nature and regulated by the San Francisco Noise Ordinance, the *Western SoMa PEIR* evaluated construction noise impacts that would result from implementation of the Community Plan and identified two mitigation measures that, when implemented, would reduce these impacts to a less-than-significant level. *Mitigation Measure M-NO-2a: General Construction Noise Control Measures* includes best practices for construction work, such as state-of-the-art noise shielding and muffling



devices and the use of electrically- or hydraulically-powered construction equipment, to minimize construction noise levels. *Mitigation Measure M-NO-2b: Noise Control Measures During Pile Driving* includes a set of site-specific noise attenuation measures for construction projects involving pile driving.

5. **Air Quality.** The proposed project's 1.8 million sf of office and commercial/light industrial uses exceed the Bay Area Air Quality Management District's (BAAQMD) construction and operational screening levels for criteria air pollutants.<sup>6</sup> Therefore, an analysis of the project's criteria air pollutant emissions is likely to be required. Please provide detailed information related to construction equipment, phasing and duration of each phase, and volume of excavation as part of the EEA. Should this analysis determine that criteria air pollutant emissions exceed the *Western SoMa PEIR* significance thresholds, construction and operational mitigation measures identified in the PEIR would be required. In addition, *Western SoMa PEIR Mitigation Measure M-AQ-6: Construction Emissions Minimization Plan for Criteria Air Pollutants* requires equipment exhaust minimization measures during construction. Another measure, *Western SoMa PEIR Mitigation Measure M-AQ-2 Transportation Demand Management Strategies for Future Development Projects*, requires various Transportation Demand Management (TDM) strategies be implemented to reduce vehicle trips and associated air pollutant emissions.

In addition, project-related demolition, excavation, grading and other construction activities may cause wind-blown dust that could contribute particulate matter into the local atmosphere. To reduce construction dust impacts, the proposed project will be required to adhere to the dust control requirements set forth in the Construction Dust Ordinance contained in San Francisco Health Code Article 22B and San Francisco Building Code Section 106.A.3.2.6. The proposed project is also required to prepare a Construction Dust Control Plan for review and approval by DPH.

The project site is located within an Air Pollutant Exposure Zone, as mapped and defined by Health Code, Article 38. The Air Pollutant Exposure Zone identifies areas with poor air quality based on modeling of air pollution, exposures, and health vulnerability from mobile, stationary, and area source emissions within San Francisco. Should the proposed project include new sensitive land uses (for example, day care facilities), those facilities would be subject to the requirements of Health Code Article 38. Additionally, due to the project site's location within an Air Pollutant Exposure Zone, construction of the project would require compliance with *Western SoMa PEIR Mitigation Measure M-AQ-7: Construction Emissions Minimization Plan for Health Risks and Hazards*.

If the project would generate new sources of toxic air contaminants including, but not limited to, diesel generators or boilers, or any other stationary sources, the project would result in toxic air contaminants that may affect both on-site and off-site sensitive receptors within the Air Pollutant Exposure Zone. If the proposed project includes sensitive receptors (for example, a day care facility), it would be subject to additional requirements under Article 38. Given the proposed project's height of up to 270 feet, the proposed project would likely require a backup diesel generator; additional measures, such as that described in *Western SoMa PEIR Mitigation Measure M-AQ-4: Siting of Uses that*

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<sup>6</sup> BAAQMD, *CEQA Air Quality Guidelines*, May 2011, Chapter 3.



*Emit PM<sub>2.5</sub> or DPM and Other TACs*, will likely be necessary to reduce its emissions. Please provide detailed information related to any proposed stationary sources with the EEA.

6. **Greenhouse Gases.** *The City and County of San Francisco's Strategies to Address Greenhouse Gas Emissions* presents a comprehensive assessment of policies, programs, and ordinances that represents San Francisco's Qualified Greenhouse Gas (GHG) Reduction Strategy. Projects that are consistent with San Francisco's Qualified GHG Reduction Strategy would result in less-than-significant impacts from GHG emissions. In order to facilitate a determination of compliance with San Francisco's Qualified GHG Reduction Strategy, the Planning Department has prepared a Greenhouse Gas Analysis Compliance Checklist.<sup>7</sup> The project sponsor is required to submit the completed table regarding project compliance with the identified regulations and provide project-level details in the discussion column. This information will be reviewed by the environmental planner during the environmental review process to determine if the project would comply with San Francisco's Greenhouse Gas Reduction Strategy. Projects that do not comply with an ordinance or regulation may be determined to be inconsistent with the Greenhouse Gas Reduction Strategy.
7. **Wind.** The proposed project would involve construction of a building over 80 feet in height. The project would therefore be required to comply with *Western SoMa Mitigation Measure M-WS-1: Screening Level Wind Analysis and Wind Tunnel Testing*. Given the proposed project's height, location, and preliminary design, wind tunnel testing will likely be required as part of the analysis. The consultant will be required to prepare a proposed scope of work for review and approval by the Environmental Planning coordinator prior to proceeding with the analysis.
8. **Shadow.** The proposed project would result in construction of a building greater than 40 feet in height. A preliminary shadow fan analysis prepared by Planning Department staff indicates that the proposed project could cast shadows on Victoria Manalo Draves Park and the Gene Friend Recreation Center, both San Francisco Recreation & Parks Department properties, as well as other nearby public and private open spaces. The project sponsor is therefore required to hire a qualified consultant to prepare a detailed shadow study. The consultant must submit a Shadow Study Application, which can be found on the Planning Department's website (<http://www.sf-planning.org/Modules/ShowDocument.aspx?documentid=539>). A separate fee is required. The consultant must also prepare a proposed scope of work for review and approval by Environmental Planning staff prior to preparing the analysis.
9. **Utilities and Service Systems.** The proposed project exceeds the threshold for a "water demand project" as defined in Sections 10910 of the California Water Code and preparation of a water supply assessment (WSA) may therefore be required. A determination of the need for a WSA will be made in consultation with the San Francisco Public Utilities Commission during preparation of the environmental documentation for the proposed project.

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<sup>7</sup> Refer to <http://sf-planning.org/index.aspx?page=1886> for latest "Greenhouse Gas Compliance Checklist for Private Development Projects."



10. **Biological Resources.** The proposed project would include demolition of buildings, and may therefore be required to comply with *Western SoMa Mitigation Measure M-BI-1a: Pre-Construction Special Status Bird Surveys*. This measure requires pre-construction special-status bird surveys during certain time periods when birds are likely to be nesting, and includes restrictions on construction during the breeding period.
11. **Geology.** The project site is located within a Seismic Hazard Zone (Liquefaction Hazard Zone likely underlain by artificial fill). Any new construction on the site is therefore subject to a mandatory Interdepartmental Project Review.<sup>8</sup> A geotechnical study prepared by a qualified consultant must be submitted with the EEA. The study should address whether the site is subject to liquefaction, and should provide recommendations for any geotechnical concerns identified in the study. In general, compliance with the building codes would avoid the potential for significant impacts related to structural damage, ground subsidence, liquefaction, landslides, and surface settlement. To assist Planning Department staff in determining whether the project would result in environmental impacts related to geological hazards, it is recommended that you provide a copy of the geotechnical information with boring logs for the proposed project. This study will also help inform the Planning Department Archeologist of the project site's subsurface geological conditions.
12. **Hazardous Materials.** The proposed project would include excavation and below-grade construction on a site with previous and ongoing light industrial uses, and which is included on a map of sites with known or suspected soil and/or groundwater contamination maintained under Article 22A of the Health Code, also known as the Maher Ordinance. Therefore, the project is subject to the Maher Ordinance, which is administered and overseen by the Department of Public Health (DPH), and which requires the project sponsor to retain the services of a qualified professional to prepare a Phase I Environmental Site Assessment (ESA) that meets the requirements of Health Code Section 22.A.6. The Phase I ESA would determine the potential for site contamination and level of exposure risk associated with the project. Based on that information, soil and/or groundwater sampling and analysis, as well as remediation of any site contamination, may be required. These steps are required to be completed prior to the issuance of any building permit.

DPH requires that projects subject to the Maher Ordinance complete a Maher Application, available at: <http://www.sfdph.org/dph/EH/HazWaste/hazWasteSiteMitigation.asp>. Fees for DPH review and oversight of projects subject to the ordinance would apply. Please refer to DPH's fee schedule, available at: <http://www.sfdph.org/dph/EH/Fees.asp#haz>. Please provide a copy of the submitted Maher Application and Phase I ESA with the EEA. Compliance with Health Code Article 22A would meet the requirements of *Western SoMa PEIR Hazardous Materials Mitigation Measure M-HZ-3: Site Assessment and Corrective Action*.

*Western SoMa PEIR Hazardous Materials Mitigation Measure M-HZ-2: Hazardous Building Materials Abatement* would be applicable to the proposed project. The mitigation measure requires that the project sponsor ensure that any equipment containing polychlorinated biphenyls (PCBs) or mercury,

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<sup>8</sup> San Francisco Planning Department. Interdepartmental Project Review. Available online at: <http://www.sf-planning.org/Modules/ShowDocument.aspx?documentid=522>.



such as fluorescent light ballasts and fluorescent light tubes, be removed and properly disposed of in accordance with applicable federal, state, and local laws. In addition, any other hazardous materials identified, either before or during work, must be abated according to applicable federal, state, and local laws.

Because the existing buildings were constructed prior to 1980, asbestos-containing materials, such as floor and wall coverings, may be found in the buildings. The Bay Area Air Quality Management District (BAAQMD) is responsible for regulating airborne pollutants including asbestos. Please contact BAAQMD for the requirements related to demolition of buildings with asbestos-containing materials. In addition, because of their age (constructed prior to 1978), lead paint may be found in the existing buildings. Please contact the San Francisco Department of Building Inspection (DBI) for requirements related to the demolition of buildings that may contain lead paint.

13. **Tree Planting and Protection.** The Department of Public Works Code Section 8.02-8.11 requires disclosure and protection of landmark, significant, and street trees located on private and public property. Any such trees must be shown on the site plans with the size of the trunk diameter, tree height, and accurate canopy drip line. Please submit the *Tree Planting and Protection Checklist* with the EEA and ensure that trees are appropriately shown on site plans. Also see the comments below under "Street Trees."
14. **Disclosure Report for Developers of Major City Projects.** The San Francisco Ethics Commission S.F. Camp. & Govt. Conduct Code § 3.520 et seq. requires developers to provide the public with information about donations that developers make to nonprofit organizations that may communicate with the City and County regarding major development projects. This report must be completed and filed by the developer of any "major project." A major project is a real estate development project located in the City and County of San Francisco with estimated construction costs exceeding \$1,000,000 where either: (1) The Planning Commission or any other local lead agency certifies an EIR for the project; or (2) The project relies on a program EIR and the Planning Department, Planning Commission, or any other local lead agency adopts any final environmental determination under CEQA. A final environmental determination includes: the issuance of a CPE; certification of an EIR; adoption of a Final Mitigated Negative Declaration; or a project approval by the Planning Commission that adopts CEQA Findings. In instances where more than one of the preceding determinations occur, the filing requirement shall be triggered by the earliest such determination. A major project does not include a residential development project with four or fewer dwelling units. The first (or initial) report must be filed within 30 days of the date the Planning Commission (or any other local lead agency) certifies the EIR for that project or, for a major project relying on a program EIR, within 30 days of the date that the Planning Department, Planning Commission, or any other local lead agency adopts a final environmental determination under CEQA. Please submit a Disclosure Report for Developers of Major City Projects to the San Francisco Ethics Commission. This form can be found at the Planning Department or online at <http://www.sfethics.org>.



**PLANNING DEPARTMENT APPROVALS:**

The project requires the following Planning Department approvals. These approvals may be reviewed in conjunction with the required environmental review, but may not be granted until after the required environmental review is completed.

Note that the subject parcel is within the Central SoMa Plan area. The Central Corridor Draft Plan for Public Review was published in April 2013. The Central SoMa Plan process is anticipated to be completed in 2016. The proposals in the Draft Plan are subject to change and are contingent on the eventual approval by the Planning Commission and Board of Supervisors. Please see the Preliminary Project Comments section for more details on proposed requirements under the Draft Plan.

1. **Rezoning.** The project site is located within the SALI (Service/Arts/Light Industrial) District. The proposed office use is not permitted under this zoning, but the proposed industrial and retail (subject to applicable size restrictions) uses would be allowed. In order for the project to proceed, the Planning Commission and Board of Supervisors would need to approve new zoning controls for the subject parcel.

The zoning concepts included in the Central Corridor Draft Plan indicate that a reclassification to MUO (Mixed Use Office) is being considered for the site. Office use is permitted in the MUO Zoning District. Please see further discussion in the Preliminary Project Comments section.

2. **Height District Reclassification.** The project site is located within the 40/55-X Height and Bulk District. The height of the proposed project would exceed this height limit of both designations. In order for the project to proceed, the Board of Supervisors would need to approve a Height District Reclassification for the subject parcel.

The zoning concepts published in the Central Corridor Draft Plan (April 2013) indicate that height limits of 55- and 65-feet (proposed Mid-Rise Scenario Alternative) and 55-, 65-, and 85-feet (proposed High-Rise Scenario Alternative) are being considered for this site. The proposed project would not conform with these alternatives put forward in the Draft Plan. However, the EIR currently underway will study a High-Rise Height Alternative of up to 270 feet on the project site. This analysis is not an indication of which height scenario will ultimately be adopted as part of the Plan and is not a guarantee that the Planning Commission or the Board of Supervisors will approve changes to height limits. Please see further discussion in the Preliminary Project Comments section.

3. A **Large Project Authorization** from the Planning Commission is required per Planning Code Section 329 for the new construction of a building greater than 75 feet in height and greater than 25,000 gross square feet.
4. A **Shadow Application** must be submitted, per Planning Code Section 295. Due to potential shadow impacts on nearby property owned by the San Francisco Recreation and Park Department (see "Preliminary Project Comments" below), the project must be approved by the Recreation and Park Commission.



5. An **Office Allocation** from the Planning Commission is required per Planning Code Section 321 et seq. to establish more than 25,000 gross square feet of new office space.
6. A **Building Permit Application** is required for the demolition of the existing building on the subject property.
7. A **Building Permit Application** is required for the proposed new construction on the subject property.

All applications are available in the Planning Department lobby at 1650 Mission Street Suite 400, at the Planning Information Center at 1660 Mission Street, and online at [www.sfplanning.org](http://www.sfplanning.org). Building Permit applications are available at the Department of Building Inspections at 1660 Mission Street.

#### NEIGHBORHOOD NOTIFICATIONS AND PUBLIC OUTREACH:

Project Sponsors are encouraged to conduct public outreach with the surrounding community and neighborhood groups early in the development process. Additionally, many approvals require a public hearing with an associated neighborhood notification. Differing levels of neighborhood notification are mandatory for some or all of the reviews and approvals listed above.

This project is required to conduct a **Pre-Application Meeting** with surrounding neighbors and registered neighborhood groups before a development application may be filed with the Planning Department. The Pre-application packet, which includes instructions and template forms, is available at [www.sfplanning.org](http://www.sfplanning.org) under the "Permits & Zoning" tab. All registered neighborhood group mailing lists are available online at [www.sfplanning.org](http://www.sfplanning.org) under the "Resource Center" tab.

#### PRELIMINARY PROJECT COMMENTS:

The following analysis examines the proposed project under the proposed zoning outlined within the Draft Central SoMa Area Plan. Unless otherwise noted, the comments apply to both project proposals submitted for this property.

1. **Existing Zoning/Height-Bulk.** The subject property is zoned as a Service/Arts/Light Industrial (SLI) district, which does not permit the proposed office use, but does permit the proposed industrial and retail (subject to applicable size restrictions) uses. It is located within the 40/55-X height and bulk district, which does not permit the project's proposed height and bulk. *The project could not be approved under existing zoning.*
2. **Central SoMa Plan.** The subject property falls within the ongoing Central SoMa Plan study area bounded by 2nd, 6th, Townsend and Market Streets. The Central Corridor Draft Plan was published in April 2013 and is currently being evaluated in an Environmental Impact Report (EIR). The Draft Plan proposes changes to the allowed land uses and building heights, and includes a strategy for improving the public realm in this area. The EIR, the Plan, and the



proposed rezoning and affiliated Code changes are anticipated to be brought before decision-makers for approval in the latter part of 2015 or early 2016.

The Central Corridor Draft Plan includes recommendations for new land use controls as well as new height and bulk controls for the subject property. The Draft Plan is available for download at <http://centralsoma.sfplanning.org>. *Further comments in this section of the PPA are based on the draft Central Corridor Draft Plan.*

3. **Land Use.** The Central SoMa Draft Plan recommends rezoning the subject property to the Mixed-Use Office (MUO) Zoning District, in which the proposed office, industrial, and retail uses would be allowed. The project also falls within the South SoMa SUD proposed in the Plan, which would require predominantly commercial uses on large sites such as this one, in order to support substantial development in this transit-rich area.

The proposal to maintain the SF Flower Mart on site helps achieve one of the Plan's central goals, which is to support a diversity of jobs and businesses in the area, including Production, Distribution, Repair (PDR) uses. The Flower Mart has been a San Francisco institution for over a century, and still serves an important PDR function. As such, the City has an interest in ensuring its continued operation, whether in its current location or elsewhere in San Francisco, and any development on the project site will be assessed for its potential impact to the ongoing operation and viability of the Flower Mart. The Plan proposes requiring at least 0.5 FAR of PDR space in most commercial developments in order to support these goals across the Plan Area. In addition, in areas currently zoned SALI, 100% replacement of existing PDR space would be required in order to prevent displacement of businesses (the greater of these two requirements would apply). For more information, see the draft policy document on Production, Distribution and Repair at:

Central SoMa Draft Policy Document: Revised Production, Distribution, and Repair (March 2015):  
[http://www.sfplanning.org/ftp/files/Citywide/Central\\_Corridor/Draft\\_CentralSoMa\\_PDR\\_Policy-March2015.pdf](http://www.sfplanning.org/ftp/files/Citywide/Central_Corridor/Draft_CentralSoMa_PDR_Policy-March2015.pdf)

Both project proposals, which preserve Flower Mart operations on site, are generally consistent with the intent of the proposed PDR policy. As this proposal is still in a preliminary phase, please ensure that the size of the Flower Mart is consistent with the PDR replacement requirements that are ultimately adopted (currently proposed at 100% replacement of PDR space in SALI districts). The project proposals include 115,000 sq ft of Flower Mart space and 10,000 sq ft of associated retail store frontage (125,000 sq ft total), while the current SF Flower Mart includes 126,500 of leasable warehouse and retail space.

This project also falls within the SoMa Entertainment SUD proposed in the Draft Plan, in which entertainment uses would be permitted. In order to create a diverse and dynamic 24-hour neighborhood characteristic of SoMa, the Central Corridor Plan's preliminary land use principles envision a mixed-use neighborhood in which substantial office development is balanced with retail, arts, entertainment, industrial, and residential uses. The proposed ground floor uses



(45,800 sf of retail uses under the February 2015 proposal; and 115,000 sf of industrial uses and 29,550 sf of retail space under the April 2015 proposal) supports this vision of a mixed-use neighborhood. The project sponsor is encouraged to further explore inclusion of a variety of active uses for these ground floor spaces. Please see the Preliminary Design Comments for further discussion.

4. **Urban Form: Height and Bulk.** In recognition of the desire to accommodate more growth in the area, the draft Central Corridor Plan recommends changing the height limits of the subject property to 55 and 65 feet. Additionally, the Draft Plan includes a Higher Height Alternative, which would allow additional height up to a maximum of 85-feet on a portion of the subject property, while the EIR is evaluating a development scenario of up to 270 feet. The proposed building tower heights, ranging from 65-to-250-feet (February 2015) and 77-to-270 feet (April 2015), are consistent with the High Rise Height Alternative under study in the Central Corridor Plan EIR. The Plan publication and ongoing EIR analysis is not an indication of which heights will ultimately be adopted as part of the Plan and is not a guarantee that the Planning Commission or the Board of Supervisors will approve the proposed heights or whether these bodies will change existing height limits.

Regardless of what height scenario is finally adopted by the Plan, any portions of the building exceeding 85-feet in height would be subject to additional setback requirements and bulk restrictions. Please see the Preliminary Design Comments below for additional discussion of massing and site design. The Central SoMa Draft Policy Paper on Bulk requirements describes the most recent proposal for the Plan's bulk controls, intended to ensure that the neighborhood urban form supports light, air, and sun access to the street, while supporting greater densities. The paper is available at:

Central SoMa Draft Policy Paper: Bulk (February 2015):

[http://www.sf-planning.org/ftp/files/Citywide/Central\\_Corridor/Central\\_SoMa\\_Draft\\_Policy\\_Paper-Feb2015\\_graphics.pdf](http://www.sf-planning.org/ftp/files/Citywide/Central_Corridor/Central_SoMa_Draft_Policy_Paper-Feb2015_graphics.pdf)

Please note that existing requirements in Eastern Neighborhoods districts for mid-block alleys and massing reduction for large projects will continue to apply. Please see comment 20 ("Mid-Block Alley") below for more information.

5. **Open Space/Private-ly-Owned Public Open Space (POPOS).** The Central Corridor Draft Plan proposes a requirement that commercial developments include a minimum amount of Privately-Owned Public Open Space (POPOS), similar to those required in the C-3 district under Section 138. If these requirements are adopted as part of the plan, such spaces would need to meet specified provisions on accessibility, design quality, and operations and maintenance. Please see the Central SoMa policy paper on POPOS, found here:

Central SoMa Draft Policy Document: Privately Owned Public Open Spaces (POPOS) (November 2014):



<http://www.sf-planning.org/ftp/files/Citywide/Central Corridor/Draft CentralSoMa POPOS Policy-November2014.pdf>

In addition, the Planning Department has developed draft Key Development Sites Guidelines for properties throughout the Plan Area, including the site of the SF Flower Mart. These design guidelines were crafted to help shape development of these key sites, particularly where their size presents special possibilities for realizing public realm or other public benefit objectives, where there is a need for coordination between or within sites, and/or where adjacent investments in transit or open space infrastructure require special consideration of the relationship between private development and the public realm. These guidelines are available at:

Central SoMa Draft Policy Document: Key Development Sites Guidelines (March 2015):  
<http://www.sf-planning.org/ftp/files/Citywide/Central Corridor/Draft CentralSoMa Policy Paper-Key Development Site Guidelines-March2015.pdf>

The Guidelines for Site 7 ["Flower Mart Block," encompassing both the Flower Mart site as well as the adjacent site at 5<sup>th</sup>/Brannan (3778/047)] call for continuous mid-block alleys to break down the massing of the block and increase pedestrian connectivity throughout the site. It also calls for coordination on the placement and design of POPOS, consolidating spaces into a single cohesive open space where possible, in order to maximize accessibility and functionality and help meet the great need for additional open spaces in this area. Finally, the guidelines also call for ground-floor activation and specifies that office space shall not be an allowed use along any street or POPOS frontage.

As currently designed, both proposals are inconsistent with these design guidelines, as they do not create adequate mid-block pedestrian connections, nor do they meet the intent of the recommended placement of POPOS within the block. This is particularly true of the April 2015 proposal, which does not include continuous pedestrian access at the rear of the elevated plaza. Further, the POPOS are designed as a segmented series of plazas that do not connect with the adjacent site, and that are lined with office uses. Please see the Preliminary Design Comments section below for additional comments.

6. **Streetscape Improvements.** The Draft Plan calls for streetscape improvements across the study area, with extensive streetscape improvements proposed along Brannan Street in order to support a safe, convenient, and attractive street environment for all users. Proposed improvements on this section of Brannan Street include wider sidewalks, reducing the number of traffic lanes, one-way cycle tracks on both sides of the street, and adding a signalized mid-block crossing. The Plan would also prohibit new curb cuts on this street. The proposed project will be expected to implement street improvements consistent with the Plan along any adjacent street and alley frontages. Please see comment 11 ("Street Trees / Streetscape Plan") and the Preliminary Design Comments for further discussion.



7. **Sustainability & Central SoMa Eco-District.** The Department sees a special opportunity for the Flower Market site to exhibit a variety of sustainability best practices including and beyond those required by the Green Building Code and other City and State sustainability requirements. The proposed project could serve as one of the primary anchor properties for the Central SoMa Eco-District. An “eco-district” is a neighborhood or district where residents, community institutions, property owners, developers, and businesses join together with city staff and utility providers to meet sustainability goals by formulating a portfolio of innovative projects at a district or block-level. The Planning Department has identified the Central SoMa plan area as a Type 2 Eco-District—an infill area composed of many smaller parcels and property owners.

All major new development in the Central SoMa Plan Area will be expected to participate in some capacity in the Eco-District Program and a possible Sustainability Management Association to help guide it. In addition, Planning staff have been in conversation with Kilroy Realty staff regarding voluntary sustainability measures related to energy, water use and building systems. Department staff will continue to work with Kilroy on further refinement and feasibility of site-specific sustainability strategies. For more information please see:

San Francisco Eco-District Program:

<http://www.sf-planning.org/index.aspx?page=3051>

Central SoMa Eco-District Task Force Recommendations Report (2013):

[http://www.sf-planning.org/ftp/files/plans-and-programs/emerging\\_issues/sustainable-development/CentralSoMa\\_EcoDTaskForceReport\\_112513.pdf](http://www.sf-planning.org/ftp/files/plans-and-programs/emerging_issues/sustainable-development/CentralSoMa_EcoDTaskForceReport_112513.pdf)

The following comments address specific Planning Code and other general issues that may substantially impact the proposed project. Please note that these comments reflect current Planning Code requirements for this property, which may differ from the requirements being considered under the Central SoMa Plan. Please see the comments above and the Preliminary Design Comments for more information.

8. **Interdepartmental Project Review.** This review is required for all proposed new construction in seismic hazard zones, in which the subject property falls. Please go to the Department’s website for information about the application.
9. **Large Project Authorization:** Planning Code Section 329 outlines the requirements for a Large Project Authorization in Eastern Neighborhoods Mixed Use Zoning Districts. Under these requirements, a Large Project Authorization is required of new construction of more than 25,000 gross square feet. All large projects within the MUO Zoning District are subject to review by the Planning Commission in an effort to achieve the objectives and policies of the General Plan, the applicable Design Guidelines and the Planning Code. Additional modifications of certain Planning Code requirements may be granted under the Large Project Authorization.
10. **Office Allocation.** As defined in Planning Code Section 321, the proposed project would need to obtain an Office Development Authorization from the Planning Commission for new



construction of over 25,000 GSF of office use. Please note that proposed amount of office use exceeds the annual limit allocation of 875,000 GSF per year for large cap projects (more than 50,000 GSF), such that entitlement of the proposed project in its entirety would depend on the accrual of unused allocations over more than one annual cycle. The Planning Department recommends that the project sponsor monitor the status of the Annual Limit Program at:

<http://www.sf-planning.org/index.aspx?page=3254>

11. **Street Trees/Streetscape Plan.** Planning Code Section 138.1 requires one street tree for every 20 feet of frontage for new construction with any remaining fraction of 10 feet or more of frontage requiring an additional tree, as well as the submittal of a streetscape plan for projects above a certain size. The proposed project would require additional street trees along public rights-of-way, as well as submittal of a streetscape plan identifying proposed improvements. Please consult with the Department of Public Works regarding the placement of the street trees. Per Planning Code Section 138.1, the Department will require standard streetscape elements and sidewalk widening for the appropriate street type per the Better Streets Plan, including landscaping, site furnishings, and/or corner curb extensions (bulb-outs) at intersections. Please see the Preliminary Design Comments for further discussion.
12. **Street Frontage.** Planning Code Section 145.1 outlines requirements for street frontages to ensure that they are pedestrian-oriented, fine-grained, and are appropriate and compatible with the buildings in MUO District. Please ensure that the ground floor street frontage meets all of these requirements as related to use, ground floor ceiling height, transparency, fenestration, gates, railings and grillwork.
13. **Shadow.** Planning Code Section 147 states that a shadow analysis is required any project over 50 feet in height in the Eastern Neighborhoods Plan Area. Similarly, Planning Code Section 295 requires a shadow analysis be conducted for any project greater than 40 feet in height. The preliminary analysis for the proposed project indicates that it may cast shadows on nearby public parks; therefore, additional analysis will be required. See comment 8 ("Shadow") in the Environmental Review section for more information.
14. **Parking.** Under current zoning (SALI) and the zoning proposed under the Draft Central Corridor Plan (MUO), no parking would be required. However, each of these zoning districts would have parking maximums, which are listed in Planning Code Section 151.1. For office use within the MUO Zoning District, parking is limited to seven percent of the gross floor area of office use. For retail use within the MUO Zoning District, parking is permitted at a ratio of 1 car for each 1,500 sq ft of retail use. For other manufacturing and industrial uses, parking is permitted at a ratio of 1 car for each 1,500 square feet of occupied floor area.
15. **Bicycle Parking & Showers.** Planning Code Section 155.2 outlines the requirement for bicycle parking in new development. The number of required Class 1 and Class 2 bicycle parking spaces shall be dependent on the amount of retail, PDR, and office space.



In addition, Planning Code Section 155.4 outlines the requirement for shower facilities and lockers for office and retail development. For office development over 50,000 sq ft, a minimum four showers and twenty-four clothes lockers are required. Please ensure compliance with these requirements.

16. **Car-Sharing.** Planning Code Section 166 provides the required number of car sharing spaces for new construction. The number of required car-share parking spaces shall be dependent on the amount of off-street parking. Please ensure compliance with this requirement.
17. **Transportation Management Program.** Pursuant to Planning Code Section 163, an agreement will be required to be executed with the Planning Department to ensure that transportation brokerage services are provided for the life of the project.
18. **Horizontal Mass Reduction:** Planning Code Section 270.1 requires a horizontal mass reduction for all new construction projects with street frontage greater than 200-ft in length. Currently, the proposed project has approximately 241-ft of frontage along Folsom Street. Therefore, the proposed project is required to incorporate a mass reduction that: 1) is not less than 30-ft in width; 2) is not less than 60-ft in depth from the street-facing building façade; 3) extends up to the sky from a level not higher than 25-ft above grade or the third-story, whichever is lower; and 4) results in discrete building sections with a maximum plan length along the street frontage not greater than 200-ft. Please ensure that the project meets this requirement. Please see comment 4 (“Urban Form: Height and Bulk”) and the Preliminary Design Comments for more information on massing requirements proposed in the Draft Plan.
19. **Narrow Street Height Provisions:** For projects within the MUO Zoning District along a Narrow Street (a public right of way less than or equal to 40 feet in width, or any mid-block passage or alley that is less than 40 feet in width), Planning Code Section 261.1 specifies that all subject frontages shall have upper stories set back at least 10 feet at the property line above a height equivalent to 1.25 times the width of the abutting narrow street. No part or feature of a building may penetrate the required setback plane. Please see comment 4 (“Urban Form: Height and Bulk”) and the Preliminary Design Comments for more information on massing requirements proposed in the Draft Plan.
20. **Mid-Block Alley:** Planning Code Section 270.2 outlines requirements for new construction on parcels that have one or more street frontages of over 200 linear feet on a block face longer than 400 feet between intersections. For new construction on lots with greater than 300 linear feet of street frontage, a publicly accessible mid-block alley for the entire depth of the property will be required. This alley should generally be located toward the middle of the subject block face and be perpendicular to the subject frontage. Additional provisions for this requirement are specified within the aforementioned code section. Please see comment 5 (“Open Space / Privately-Owned Public Open Space (POPOS)”) and the Preliminary Design Comments for more information on proposed requirements under the Draft Plan.



21. **Transit Impact Development Fee.** Pursuant to Planning Code Section 411 et seq., the Transit Impact Development Fee (TIDF) will apply to this project. Please be aware that under the ongoing Transportation Sustainability Program, a proposed new transportation impact fee (the Transportation Sustainability Fee, or TSF) may replace the TIDF. Additional information on this program is available on the Department's website at:  
<http://www.sf-planning.org/index.aspx?page=3035>
22. **Eastern Neighborhoods Impact Fees.** This project is subject to the applicable fees outlined in Section 423 et seq.
23. **Jobs-Housing Linkage Program.** Pursuant to Planning Code Section 413 et seq., the Jobs-Housing Linkage Program fee will apply to this project.
24. **Child Care Requirements.** Pursuant to Planning Code Section 414 et seq., this project will be subject to child care requirements, and/or the associated in-lieu fee, since it is constructing more than 50,000 gsf of office space.
25. **Public Art.** Pursuant to Planning Code Section 429 et seq., this project will be subject to the public art requirements, since it involves new construction of non-residential use in excess of 25,000 sq ft within the MUO Zoning District.
26. **First Source Hiring Agreement.** A First Source Hiring Agreement is required for any project proposing to construct 25,000 gross square feet or more. For more information, please contact:

Ken Nim, Workforce Compliance Officer  
CityBuild, Office of Economic and Workforce Development  
City and County of San Francisco  
50 Van Ness, San Francisco, CA 94102  
(415)581-2303

## PRELIMINARY DESIGN COMMENTS:

The project is located in the study area of the Central SoMa Area Plan, currently in process. The site is large and unique, currently housing the San Francisco Flower Mart in a neighborhood with a mixed character of commercial, PDR and residential uses. While the existing neighborhood context includes one to eight story buildings, the Draft Plan proposes a significant increase in density in the area, as it is well served by local and regional transit. The plan proposes several high-rise and large floorplate mid-rise projects on adjacent blocks. The following comments address preliminary design issues that may significantly impact the proposed project:

1. **Site Design, Open Space, and Massing.** The Planning Department recommends that the open space and massing strategy be reframed to better support the goals of the Central SoMa district identity, specifically that the area is intended to be a mid-rise district punctuated with occasional



towers. To clearly define this mid-rise massing, the plan proposes establishing a defined and variable streetwall between 65-ft and 85-ft to keep a strong yet pedestrian-scaled edge along the major streets. A handful of towers (defined as any mass above 160') will be permitted in the Plan Area and are to be small (maximum floorplate of 15,000 sf for office) from the 85' plane and above to be more "spire-like." The Planning Department finds that the current proposal, as a campus of buildings, shifts the balance and definition of the massing and open space too much in favor of the latter, such that the buildings are seen more as objects in an open environment rather than a mid-rise solid with relief open spaces carved from it.

Additionally, the Plan's proposed rezoning generally reinforces a neighborhood pattern of larger heights on the large streets with lower heights towards the center of the block. While there are few existing small streets or alleys present in the large block bounded by Sixth, Fifth, Bryant and Brannan, the Plan seeks to further the scale and massing of this characteristic pattern, including a re-establishment of smaller streets or alleys to provide permeability and physical access through the interior of the site. The current proposal deviates from this intent by including a high-rise tower at the center of the development site and by its lack of connectivity and permeability to the adjacent site at 5<sup>th</sup> & Brannan, and to 5<sup>th</sup> Street generally. The proposed massing of the buildings effectively creates a solid barrier to visual and physical connectivity to 5<sup>th</sup> Street in a way that is not consistent with the draft Plan. The project sponsor will need to consider how the scenario with the Flower Mart above grade can be designed to achieve these objectives and not create extensive stretches of ground-level impermeability, particularly when the Mart is not in operation.

Note also that the draft Plan currently includes an apparent mass reduction bulk control (informally known as "skyplane") which would apply at lot edges. The Planning Department recommends reviewing the "Shaping New Buildings" boards created for the last community meeting to review this intent in more depth, available at (see pages 6 -11):

<http://www.sf-planning.org/ftp/files/Citywide/Central Corridor/CentralSoma Combined Storyboards-032515.pdf>

We recommend that the project sponsors and their design team further work with the staff developing the Key Development Sites Guidelines as part of the Central SoMa plan, which can be found here:

Central SoMa Draft Policy Document: Key Development Sites Guidelines (March 2015):  
<http://www.sf-planning.org/ftp/files/Citywide/Central Corridor/Draft CentralSoMa Policy Paper-Key Development Site Guidelines-March2015.pdf>

2. **Street Frontage.** The unique nature of the Flower Mart use presents opportunities to support open space identity, accessibility, and connectivity in Central SoMa. Along with fulfilling Planning Code Sections 138 (Privately-Owned Public Open Space) and 270.2 (Mid-Block Alley



requirements), the project should provide a defined singular space or intentional network of spaces that are programmed and designed to be inclusive and attractive to the public and local residents in addition to workers and tenants on site and in the vicinity. Most importantly, the interior of the block should be positively activated and permeable even when the Flower Mart is not open. The current proposal in the Draft Plan would require active uses, such as retail, lining all POPOS frontages. Both proposals would not be compliant with this key requirement, as they feature office uses along the portions of the plaza.

The Flower Mart could itself be redefined as a semi-open environment with a strong sense of permeability to the public realm. This inventive ground floor “landscape” would be able to facilitate access for service vehicles and the industrial nature of the commercial activity, while being safe and spatially connected for pedestrians and their retail interface. As the project has significant POPOS requirements and the Flower Mart may consume and require a large portion of the lot area, we recommend continuing to work with Planning Department staff to consider how best to meet the requirement and intents of both the open space and mid-block alley requirements through creative building massing, ground floor programming, and landscape design. Please see the Central SoMa POPOS policy paper found here:

Central SoMa Draft Policy Document: Privately Owned Public Open Spaces (POPOS) (November 2014):  
[http://www.sf-planning.org/ftp/files/Citywide/Central Corridor/Draft CentralSoMa POPOS Policy-November2014.pdf](http://www.sf-planning.org/ftp/files/Citywide/Central_Corridor/Draft_CentralSoMa_POPOS_Policy-November2014.pdf)

Due to the complexity of the site context and great potential to influence the character of the area, the Planning Department encourages the project sponsor to initiate this landscape and ground floor design development early in the project.

Additionally, per Planning Code Section 138.1, the Department will require standard streetscape elements and sidewalk widening for the appropriate street type per the Better Streets Plan, including landscaping, site furnishings, and/or corner curb extensions (bulb-outs) at intersections (See Better Streets Plan Section 4 for Standard Improvements and Section 5.3 for Bulb-Out Guidelines). The project sponsor is required to submit a Streetscape Plan illustrating these features, and the department will work with the project sponsor and other relevant departments to determine an appropriate streetscape design. Standard street improvement would be part of basic project approvals not count for as credit towards in-kind contributions.

3. **Architecture.** As the project proposal is diagrammatic, the Planning Department has little comment on the architecture at this time but recommends that the project express significant depth and high-quality materials in the facades and reflect the architectural detailing and character of the neighborhood.

Above all, the project should express a clear and neighborhood-compatible architectural idea that not only provides a contemporary set of buildings, but acknowledges the history of the site, expresses the unique nature of the development program, and feels accessible and welcoming for



its public elements. The architecture should consider itself as a campus of features that may have some commonality, but may also express variety in their concept, material creativity, and personality.

**PRELIMINARY PROJECT ASSESSMENT EXPIRATION:**

This Preliminary Project Assessment is valid for a period of **18 months**. An Environmental Evaluation, Conditional Use Authorization, or Building Permit Application, as listed above, must be submitted no later than **January, 23, 2017**. Otherwise, this determination is considered expired and a new Preliminary Project Assessment is required. Such applications and plans must be generally consistent with those found in this Preliminary Project Assessment.

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# EXHIBIT 7



## **SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

### **Final –Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds**

**October 2006**

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VICE CHAIRMAN:    S. ROY WILSON, Ed.D.  
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### APPENDIX A - UPDATED CEIDARS TABLE LIST WITH PM2.5 FRACTIONS

### APPENDIX B – PM2.5 LOCALIZED SIGNIFICANCE THRESHOLD LOOK-UP TABLES



## Introduction

In the last few years, both California and the federal governments have established ambient air quality standards for fine particulate matter (PM) less than or equal to 2.5 microns in diameter (PM2.5). As a result, there is a need to establish a methodology for calculating PM2.5 and appropriate PM2.5 significance thresholds for the purpose of analyzing local and regional PM2.5 air quality impacts in California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) air quality analyses. This document provides a methodology for calculating PM2.5 and recommendations for localized and regional PM2.5 significance thresholds.

## Background

PM larger than 2.5 microns and less than 10 microns, often referred to as the coarse PM fraction (or PM10), is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. In contrast, PM less than or equal to PM2.5 is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary combustion sources. The particles are either directly emitted or are formed in the atmosphere from the combustion of gases, such as NO<sub>x</sub> and SO<sub>x</sub> combining with ammonia. PM2.5 components from material in the earth's crust, such as dust, are also present, with the amount varying in different locations. Staff's recommendation for calculating PM2.5 focuses only on directly emitted PM2.5.

In 1997, U.S. EPA established an annual and a 24-hour standard for the finest fraction of particulates, PM2.5, to complement the existing PM10 standards. However, U.S. EPA recently modified the 24-hr PM2.5 standard and revoked the annual PM10 standard. (Table 1). The annual component of the standard was established to provide protection against typical day-to-day exposures as well as longer-term exposures, while the daily component protects against more extreme short-term events.

**TABLE 1**

Federal Standards for Particulate Matter

Federal Standards	PM 10	PM 2.5
Annual	Revoked <sup>a</sup>	15 µg/m <sup>3</sup>
24-Hour	150 µg/m <sup>3</sup>	35 µg/m <sup>3</sup> <sup>b</sup>

In June 2002, the California Air Resources Board (CARB) adopted new, stricter standards for particulate matter that would affect both the coarse as well as fine particulate fraction (Table 2). CARB delayed action on the proposed 24-hour PM2.5 standard in light of the

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<sup>a</sup> U.S. EPA final rulemaking for CFR 40 Part 50.7 National Primary and Secondary Ambient Air Quality Standards at [http://epa.gov/pm/pdfs/20060921\\_rule.pdf](http://epa.gov/pm/pdfs/20060921_rule.pdf)

<sup>b</sup> U.S. EPA final rulemaking for CFR 40 Part 50.13 National Primary and Secondary Ambient Air Quality Standards at [http://epa.gov/pm/pdfs/20060921\\_rule.pdf](http://epa.gov/pm/pdfs/20060921_rule.pdf)



findings related to statistical issues in several key short-term exposure health effects studies.

**TABLE 2**

California Standards for Particulate Matter

California Standards	PM 10	PM 2.5
Annual	20 $\mu\text{g}/\text{m}^3$	12 $\mu\text{g}/\text{m}^3$
24-Hour	50 $\mu\text{g}/\text{m}^3$	n/a

**Methodology to Calculate PM 2.5**

Because there are currently few or no PM2.5 emission factors for mechanical or combustion processes, staff is recommending an indirect approach to calculating PM2.5 emissions until such time as PM2.5 factors are developed. Since PM2.5 is a subset of PM10, the current methodology for calculating PM10 from fugitive dust sources (grading, demolition, unpaved roads, open storage piles, etc.) and combustion sources (stationary combustion sources, vehicle exhaust) will continue to be used to calculate PM10 and can also be used to calculate PM2.5. Total suspended PM (TSP) emissions typically contain specific fractions of PM10 and PM2.5 that can be measured. In general, PM from fugitive dust generating sources is primarily composed of PM10 with a relatively small fraction of the fugitive PM consisting of PM2.5. Alternatively, PM from combustion sources is primarily composed of PM2.5 with a small fraction consisting of PM10.

To calculate both PM10 and PM2.5, existing PM10 calculation methodologies for both fugitive dust PM10 and combustion PM10 can be used. To determine the PM2.5 fractions of the PM10 emission results, staff is recommending that the PM10 emissions be calculated using standard PM10 calculation methodologies. The PM10 emission results for each emission source or operation would then be multiplied by the applicable PM2.5 fraction, derived by emissions source, using PM profiles in the California Emission Inventory Data and Reporting System (CEIDARS) developed by the California Air Resources Board (CARB). The CEIDARS PM profiles are used to develop emission inventories for a variety of sources and operations in the Air Quality Management Plan (AQMP). The CEIDARS PM profiles have been streamlined to be used for most types of processes that would be encountered in a CEQA or NEPA document. In addition, AQMD staff has identified the PM2.5 fraction of PM10. The streamlined CEIDARS PM profiles can be found in Appendix A. The CEIDARS PM profiles may be updated as necessary to reflect updates prepared by CARB.

If the project being evaluated is not listed among the categories in Appendix A, then the closest related type of operation/process should be used. For example in analyzing construction activities, e.g., grading, earth moving, etc., if the specific activity is not located in the tables the CEQA practitioner can use the following default factors derived from the 2003 AQMP annual inventories (see Tables 3 and 4 below under the “Localized Significance Thresholds for PM2.5 Emissions” discussion). For mechanical dust generating sources, e.g., construction, the PM2.5 fraction of PM10 is 21 percent and for combustion sources the PM2.5 fraction of PM10 is 99 percent. For off-road combustions



sources, the PM2.5 fraction default would be 89 percent (Table 5). Other publicly available and peer reviewed sources of PM10 and PM2.5 emission factors can also be used if they more closely match the type of emission source than the sources identified in Appendix A. In addition, site-specific or project-specific information can be used.

Once the PM10 fractions from all emissions sources are calculated, these are summed and compared to the appropriate PM10 significance thresholds to determine whether or not a project is significant. Similarly, once the PM2.5 fractions from all emissions sources have been calculated, these are also summed (separate from the PM10 fractions) and compared to the appropriate PM2.5 significance threshold (see following discussion) to determine project significance.

The PM2.5 fraction of PM10 can be easily calculated as follows.

Step 1: Calculate PM10 emissions for each emissions source category.

Step 2: Look up the PM2.5 fraction of PM10 for the applicable source category by year that construction will occur or operation of the project will begin (Appendix A, column 6 of the appropriate table).

Step 3: Multiply the PM2.5 fraction by the PM10 emissions for each source category (PM2.5 emissions = PM10 emissions x [PM2.5 fraction])

Step 4: Sum the PM2.5 emissions from each emissions source.

Step 5: Compare PM2.5 emissions to the appropriate significance threshold.

Example:

A project is estimated to generate 8 pounds per day of PM10 from one piece of construction equipment. The PM2.5 emissions are as follows:

PM2.5 emissions = 8 pounds of PM10 per day x 0.89 = 7.12 pounds of PM2.5 per day.

In conjunction with establishing a methodology for calculating PM2.5, staff has developed the following recommended PM2.5 significance thresholds for both localized and regional significance for both construction and operation.

### **Localized Significance Thresholds for PM 2.5 Emissions**

Localized significance thresholds (LSTs) were developed in response to the SCAQMD Governing Board's environmental justice (EJ) initiatives (EJ initiative I-4) in recognition of the fact that criteria pollutants, carbon monoxide (CO), oxides of nitrogen (NOx), and PM10 in particular, can have local impacts as well as regional impacts. The LST proposal went through extensive public outreach and was adopted by the Governing Board in October 2003. At the time the LST was adopted by the Governing Board, staff had not yet developed proposed LSTs for PM2.5.



Determining localized air quality impacts requires dispersion modeling. Because local lead agencies may not have the expertise or resources to perform dispersion modeling, SCAQMD created a series of look-up tables for CO, NO<sub>x</sub>, and PM<sub>10</sub> in which staff back-calculated the mass emissions necessary to equal or exceed the construction or operation LST. The look-up tables were created for projects one to five acres in size and take into consideration location (source receptor area) and distance to the sensitive receptor. To use the look-up tables, the lead agency calculates daily emission as it normally would and then compares the results to the emissions in the applicable look-up table.

In general, the LSTs will apply primarily to construction because emissions from construction equipment occur at a fixed location compared to operation, which, for most land use projects, consists of emissions from vehicles traveling over the roadways, which, therefore, do not create impacts to a single location. To further assist lead agencies with calculating construction emissions, the SCAQMD conducted construction site surveys for each phase of construction to develop standard construction scenarios relative to construction equipment and hours of operation. Spreadsheets were developed to calculate emissions for the construction scenarios in an effort to create scenarios that would not exceed any applicable LSTs. When preparing a CEQA analysis, lead agencies could use the sample construction projects for their construction analyses, use the spreadsheets to tailor the analysis to their individual projects, or use a combination of the two.

The following subsections describe the proposed PM2.5 LSTs for both operation and construction.

### **Establishing LSTs**

To determine the effects of PM2.5 on local (nearby) receptors, such as residents, hospitals, schools, etc., a PM2.5 localized significance threshold (LST) needs to be established. Since the Basin exceeds one or more of the state or federal ambient air quality standards for PM2.5, the process used to determine significance for attainment pollutants, i.e., NO<sub>2</sub> and CO, developed for the LST program cannot be used<sup>c</sup>. Under the LST program, since PM<sub>10</sub> is a nonattainment pollutant, the LST methodology uses a different process for determining whether localized PM<sub>10</sub> air quality impacts are significant. To determine localized PM<sub>10</sub> air quality impacts during operation, the LST methodology uses as a significance threshold the allowable change in concentration threshold for PM<sub>10</sub> listed in Rule 1303, Table A-2, which is 2.5 micrograms per cubic meter (µg/m<sup>3</sup>). The allowable change in concentration threshold is a modeled concentration that cannot be exceeded at the sensitive receptor, and determines whether or not a permit applicant will receive a permit from the SCAQMD. For the LST program staff used a dispersion model (ISCST3) to convert the 2.5 µg/m<sup>3</sup> concentration into mass daily PM<sub>10</sub> emissions numbers based on the size of the project, location of the project, and distance to the sensitive receptor. The

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<sup>c</sup> Under the LST program, to determine significance for attainment pollutants, the emissions contribution from the project expressed as a concentration is added to the highest local ambient concentration from the last three years where data are available. If the sum is equal to or greater than any applicable state or federal ambient air quality standard, the project is considered to have significant localized air quality impacts for that pollutant. More information on the LST program can be found at the following URL: <http://www.aqmd.gov/ceqa/handbook/LST/LST.html>.



results were then incorporated into an LST look-up table. If the mass emissions from a project exceed the applicable LST look-up tables' mass emission numbers (which are based on the 2.5  $\mu\text{g}/\text{m}^3$  concentration), then localized PM10 air quality impacts are considered to be significant.

### ***Operational Localized Significance Thresholds***

To establish operational PM2.5 localized significance thresholds, staff first reviewed the PM inventories in Appendix III of the 2003 AQMP. In particular, staff evaluated the composition of PM10 and PM2.5 from combustion processes in the 2003 AQMP to establish a general ratio of PM2.5 to PM10. Combustion processes were evaluated because, for most land use projects, mobile source combustion emissions comprise the majority of emissions. Table 3 shows the total PM10 and PM2.5 inventories for total fuel combustion process for the years 2005 through 2010. As can be seen in Table 3, over the five-year timeframe considered, the fraction of combustion PM10 that consists of PM2.5 is consistently 99 percent. Since combustion PM10 and PM2.5 fractions are essentially equivalent, staff is recommending that the operational localized significance threshold for PM2.5 be the same as the current operational localized significance threshold for PM10, i.e., 2.5  $\mu\text{g}/\text{m}^3$ .

**TABLE 3**

Total Stationary Source Fuel Combustion Inventory (Tons/Day)

Year	PM 10	PM 2.5	Percent of PM 10 which is PM 2.5
2005	8.13	8.01	99
2006	8.21	8.10	99
2007	8.30	8.18	99
2008	8.38	8.26	99
2010	8.54	8.42	99

Source: Appendix III, 2003 AQMP, Annual Average Emission Inventory

### ***Construction Localized Significance Thresholds***

Similarly, to develop a PM2.5 construction significance threshold for localized impacts, staff considered the PM2.5 contribution from fugitive sources and the PM2.5 contribution from combustion sources (construction equipment). As discussed in more detail in the following paragraphs, combustion emissions from the construction equipment contribute a larger portion of the total PM2.5 emissions from construction operations than fugitive sources.

Staff then reviewed the 2003 AQMP, Appendix III fugitive PM inventory for construction and demolition to obtain the PM10 and PM2.5 compositions. Table 4 shows the total PM10 and PM2.5 inventories for construction activities for the years 2005 through 2010. As can be seen in Table 4, over the five-year timeframe, the fraction of PM10 that consists of PM2.5 is consistently 21 percent. Multiplying the fugitive PM2.5 percent fraction of



PM10 by the existing construction PM10 LST, 10.4  $\mu\text{g}/\text{m}^3$ , produces a result of approximately 2.2  $\mu\text{g}/\text{m}^3$ .

**TABLE 4**

Total Fugitive PM Inventory (Tons/Day)

Year	PM 10	PM 2.5	Percent of PM 10 which is PM 2.5
2005	42.7	8.91	21
2006	43.66	9.11	21
2007	44.6	9.3	21
2008	45.54	9.5	21
2010	47.44	9.9	21

Source: Appendix III, 2003 AQMP, Annual Average Emission Inventory

Off-road construction equipment, however, also contributes combustion PM as well as fugitive PM. To determine the contribution of PM2.5 from construction equipment combustion emissions, staff performed dispersion modeling using the ISCST3 dispersion model for one-, two-, and five-acre construction scenarios. The construction scenarios were developed from construction site surveys conducted in connection with staff's original LST proposal. Combustion sources were modeled as adjacent five-meter volume sources and fugitive sources were modeled as adjacent one-meter area sources. Worst-case meteorological data from the West Los Angeles source receptor area were used and receptors were placed at 25, 50, 100, 200, and 500 meter distances from the construction site. Using CARB speciation data, it was assumed that 21 percent of fugitive dust PM10 is comprised of PM2.5 and 89 percent of off-road equipment combustion PM10 emissions are comprised of PM2.5 (based 2003 AQMP inventories, see Table 5).

**TABLE 5**

Combustion PM Inventory from Off-Road Equipment (Tons/Day)

Year	PM 10	PM 2.5	Percent of PM 10 which is PM 2.5
2005	11.95	10.64	89
2006	11.61	10.33	89
2007	11.2	9.97	89
2008	10.93	9.71	89
2010	10.26	9.09	89

Source: Appendix III, 2003 AQMP, Annual Average Emission Inventory

The modeling results showed that combustion PM2.5 from off-road equipment comprise approximately 75 to 100 percent of the total PM2.5 emissions from construction activities. Further, the PM2.5 contribution from fugitive sources is dependant on the construction phase. For example, the modeling showed that the demolition and site preparation phases have the highest fugitive PM2.5 contribution to the overall results, whereas, the building and asphalt paving phases contribute the most combustion PM2.5 to the overall results.



The modeling results indicate that the contribution of off-road combustion PM2.5 emissions can be three to four times higher than the contribution of PM2.5 from fugitive sources. Based on this result, staff recommends that the PM2.5 fugitive dust component be adjusted upward by approximately four times to account for the PM2.5 emissions from the construction equipment. As a result, staff is recommending a PM2.5 construction LST of  $10.4 \mu\text{g}/\text{m}^3$ , the same as the construction LST for PM10. Finally, an exceedance of either the PM10 construction LST or the PM2.5 construction LST is a significant adverse localized air quality impact.

### **Regional Emission Threshold of Significance for PM 2.5**

Emissions that exceed the regional significance thresholds are mass daily emissions that may have significant adverse regional effects and are the air quality significance thresholds with which most CEQA practitioners are familiar.

**Table 6**  
Regional Air Quality Significance Thresholds

<i><b>Mass Daily Thresholds<sup>a</sup></b></i>		
<b>Pollutant</b>	<b>Construction<sup>b</sup></b>	<b>Operation<sup>c</sup></b>
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

The following subsection describes the proposed PM2.5 regional significance thresholds for both operation and construction.

#### **Establishing Regional Significance Thresholds**

PM emissions also affect air quality on a regional basis. When fugitive dust enters the atmosphere, the larger particles of dust typically fall quickly to the ground, but smaller particles less than 10 microns in diameter may remain suspended for longer periods, giving the particles time to travel across a regional area and affecting receptors at some distance from the original emissions source. Fine PM2.5 particles have even longer atmospheric residency times. Staff is recommending a PM2.5 regional significance threshold based on a recent EPA proposal, as explained in the following paragraphs.

On September 8, 2005, EPA published in the Federal Register “Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards,” which proposed a significant emission rate for PM2.5 of 10 tons per year. Staff is proposing to use EPA’s



significant emission rate for PM2.5 to develop the daily mass emission regional significance threshold for PM2.5. Converting the annual rate, 10 tons, into a daily rate produces a daily rate of approximately 55 pounds per day. A similar approach was used to derive the operational regional significance thresholds for NO2 and VOC. NO2 and VOC operational regional significance thresholds were derived by using the NOx/VOC emission rate that defined a major source in the South Coast Air Basin, 10 tons per year. Converting the annual emissions rate into a daily rate resulted in a regional operational significance threshold of 55 pounds per day for each pollutant. Similar to the regional significance threshold for PM10 of 150 pounds per day, the proposed PM2.5 regional significance threshold of 55 pounds per day would apply to both construction and operation.

## **Conclusion**

In this document staff identified a methodology to indirectly calculate PM2.5 emissions for a CEQA or NEPA air quality analysis, to be used until such time as PM2.5 emission factors are available, which will allow the CEQA practitioner to calculate PM2.5 emissions directly. In addition, PM2.5 construction and operation LSTs have been identified to address localized impacts. The PM2.5 LSTs will be used to develop look-up tables for projects five acres in size or smaller, similar to those prepared for PM10, nitrogen dioxide (NO2), and carbon monoxide (CO). As with the other pollutants, the PM2.5 look-up tables can be used as a screening procedure to determine whether or not small projects (less than or equal to five acres) will generate significant adverse localized air quality impacts. Screening procedures are by design conservative, that is, the predicted impacts tend to overestimate the actual impacts. If the predicted impacts are acceptable using the LST look-up tables, then a more detailed evaluation is not necessary. However, if the predicted impacts are significant, then the project proponent may wish to perform a more detailed emission and/or modeling analysis before concluding that the impacts are significant. Project proponents are not required to use this LST procedure; and may complete site specific modeling instead. Site-specific modeling is required for projects larger than five acres.



## **APPENDIX A**

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### **Updated CEIDARS Table with PM2.5 Fractions**



**Appendix A – Updated CEIDARS List with PM2.5 Fractions**
**Table A - Updated CEIDARS Table with PM2.5 Fractions**

SCC MAIN CATEGORY	SCC SUBCATEGORY	PM2.5 FRACTION OF TOTAL PM	PM10 FRACTION OF TOTAL PM	PM2.5 FRACTION OF PM10
ASBESTOS REMOVAL		0.500	0.500	1.000
ASPHALT PAVING / ROOFING	FUGITIVE EMISSIONS	0.925	0.960	0.964
	MANUFACTURING	0.945	0.980	0.964
BURNING	AGRICULTURE/FIELD CROPS, WEED ABATEMENT	0.938	0.984	0.954
	FOREST MANAGEMENT, TIMBER AND BRUSH FIRE	0.854	0.961	0.889
	ORCHARD PRUNINGS	0.925	0.981	0.943
	RANGE MANAGEMENT, WASTE BURNING	0.932	0.983	0.948
	UNPLANNED STRUCTURAL FIRES	0.914	0.980	0.933
CEMENT MANUFACTURING		0.620	0.920	0.674
CHEMICAL MANUFACTURING	FERTILIZER-UREA	0.950	0.960	0.990
	ORGANIC AND INORGANIC CHEMICALS	0.890	0.900	0.989
COATINGS, SOLVENTS, INKS AND DYES	SOLVENT BASED	0.925	0.960	0.964
	WATER-BASED COATING	0.620	0.680	0.912
CONSUMER PRODUCTS		0.925	0.960	0.964
COOKING	BAKING, CHARBROILING, DEEP FAT FRYING	0.420	0.700	0.600
COOLING TOWER		0.420	0.700	0.600
DRY CLEANING		0.925	0.960	0.964
ELECTROPLATING	HEXAVALENT CHROME, CADMIUM	1.000	1.000	1.000
	ZINC AND COPPER	0.925	0.960	0.964
EXTERNAL COMBUSTION	COAL, COKE, LIGNITE	0.150	0.400	0.375
	GASEOUS FUEL-EXCEPT PETROLEUM AND INDUSTRIAL PROCESS HEATERS	1.000	1.000	1.000
	GASEOUS FUEL-PETROLEUM AND INDUSTRIAL PROCESS HEATER ONLY	0.930	0.950	0.979
	LIQUID FUEL-EXCEPT RESIDUAL OIL	0.967	0.976	0.991
	RESIDUAL OIL-EXCEPT UTILITY BOILERS	0.760	0.870	0.874
	RESIDUAL OIL-UTILITY BOILERS ONLY	0.953	0.970	0.982
	STEEL FURNACE	0.930	0.980	0.949
	WOOD/BARK WASTE	0.927	0.997	0.930
FABRICATED METALS	ABRASIVE BLASTING	0.790	0.860	0.919
	ARC WELDING, OXY FUEL, COPPER, ZINC, BATH	0.925	0.960	0.964
FOOD AND AGRICULTURE	COFFEE ROASTING	0.610	0.620	0.984
	FERMENTATION, RENDERING, FISH AND NUT PROCESSING	0.420	0.700	0.600
	GRAIN ELEVATORS	0.010	0.290	0.034
	GRAIN MILLING, DRYING	0.400	0.540	0.741
	LIVESTOCK WASTE	0.420	0.700	0.600
FUGITIVE DUST	AGRICULTURAL TILLING DUST	0.101	0.454	0.222
	CONSTRUCTION AND DEMOLITION	0.102	0.489	0.208
	LANDFILL DUST	0.102	0.489	0.208
	LIVESTOCK DUST	0.055	0.482	0.114
	PAVED ROAD DUST	0.077	0.457	0.169
	UNPAVED ROAD DUST	0.126	0.594	0.212
FUGITIVE EMISSIONS - ORGANIC AND INORGANIC	LIQUID FUEL STORAGE/HANDLING, LOADING, UNLOADING DISPENSING	0.925	0.960	0.964
	NATURAL GAS PRODUCTION, CRUDE OIL PRODUCTION, PETROLEUM REFINING	0.555	0.610	0.910
	ORGANIC AND INORGANIC CHEMICALS	0.925	0.960	0.964
	PROCESSING	0.925	0.960	0.964
	WELL CEMENTS, PUMPS, VALVES, FLANGES, SEALS	0.925	0.960	0.964



**Table A - Updated CEIDARS Table with PM2.5 Fractions (Continued)**

SCC MAIN CATAGORY	SCC SUBCATAGORY	PM2.5 Fraction of Total PM	PM10 Fraction of Total PM	PM2.5 Fraction of PM10
HEALTH CARE, LABS	STERILIZATION	0.420	0.700	0.600
INCINERATOR, AFTERBURNER, FLARES	GASEOUS FUEL	1.000	1.000	1.000
	LIQUID FUEL	0.967	0.976	0.991
	SOLID FUEL	0.200	0.300	0.667
INTERNAL COMBUSTION	DISTILLATE AND DIESEL-ELECTRIC GENERATION	0.937	0.960	0.976
	DISTILLATE AND DIESEL-EXCEPT ELECTRIC GENERATION	0.967	0.976	0.991
	GASEOUS FUEL	0.992	0.994	0.998
	GASOLINE	0.992	0.994	0.998
	JET FUEL	0.967	0.976	0.991
	SOLID PROPELLANT	0.927	0.997	0.930
MINERAL PROCESS LOSS	BRICK, CEMENT, FIBERGLASS, GLASS MFG.	0.146	0.500	0.292
	COAL CLEANING, SURFACE COAL MINE, NONMETALLIC MINERAL	0.146	0.500	0.292
	GRINDING, CRUSHING, SURFACE BLASTING	0.146	0.500	0.292
	LOADING AND UNLOADING BULK MATERIALS	0.146	0.500	0.292
MINERAL PRODUCTS	CLAY AND RELATED PRODUCTS GRINDING OPERATIONS	0.513	0.560	0.916
	CRUSHING, SCREENING, BLASTING, LOADING AND UNLOADING	0.030	0.100	0.300
	FIBERGLASS MANUFACTURING	0.992	0.994	0.998
	GLASS MELTING FURNACE	0.963	0.980	0.983
	GYPSUM MANUFACTURING	0.495	0.880	0.563
	LIME MANUFACTURING	0.117	0.300	0.390
	STONE QUARRYING	0.146	0.500	0.292
OFF-ROAD EQUIPMENT	DIESEL	0.920	1.000	0.920
	GASEOUS FUEL	0.992	0.994	0.998
	GASOLINE	0.680	0.900	0.756
ON-ROAD VEHICLES	BRAKE WEAR	0.420	0.980	0.429
	DIESEL	0.920	1.000	0.920
	GASOLINE-CATALYST	0.900	0.970	0.928
	GASOLINE-NO CATALYST	0.680	0.900	0.756
	HEAVY, MEDIUM, LIGHT DUTY TRUCKS AND VEHICLES, MOTORHOMES, BUSES, MOTORCYCLES	0.925	0.960	0.964
	TIRE WEAR	0.250	1.000	0.250
PETROLEUM INDTRY	ASPHALT CONCRETE	0.333	0.400	0.833
PRIMARY AND SECONDARY METALS	ELECTRO REDUCTION, FURNACE, FLUXING, STORAGE, PROCESSING	0.903	0.950	0.951
	IRON & STEEL, FOUNDRY, HEAT TREATING	0.860	0.960	0.896
	STEEL FURNACE	0.600	0.830	0.723
RESIDENTIAL FIREPLACES AND WOOD COMBUSTION		0.900	0.935	0.963
SHIPS	DIESEL	0.920	1.000	0.920
	LIQUID FUEL	0.937	0.960	0.976
TRAINS	HAULING, SWITCHING	0.920	1.000	0.920
WASTEWATER, SEWAGE TREATMENT, DIGESTER		0.925	0.960	0.964
WOOD PRODUCTS	SANDING	0.885	0.920	0.962
	SAWING	0.283	0.400	0.708



## **APPENDIX B**

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### **PM2.5 Localized Significance Threshold Look-up Tables**



**Table B-1. PM2.5 Emission Thresholds for Construction**

SRA No.	Source Receptor Area	Significance Threshold of 10.4 ug/m <sup>3</sup> Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site									
		1 Acre					2 Acre				
		25	50	100	200	500	25	50	100	200	500
1	Central LA	3	5	10	24	102	5	7	12	28	110
2	Northwest Coastal LA County	3	4	8	18	77	4	5	10	21	82
3	Southwest Coastal LA County	3	5	9	21	75	5	7	12	25	81
4	South Coastal LA County	3	5	10	26	93	5	7	13	30	101
5	Southeast LA County	3	4	8	19	86	4	6	10	22	92
6	West San Fernando Valley	3	4	7	18	79	4	5	9	21	84
7	East San Fernando Valley	3	4	8	18	68	4	6	10	21	73
8	West San Gabriel Valley	3	4	7	18	77	4	5	9	21	82
9	East San Gabriel Valley	3	5	9	22	94	5	7	12	26	100
10	Pomona/Walnut Valley	3	4	7	18	75	4	6	10	21	80
11	South San Gabriel Valley	4	5	9	20	83	5	8	12	24	89
12	South Central LA County	3	4	7	17	70	4	6	9	19	74
13	Santa Clarita Valley	3	4	7	18	74	4	5	9	20	80
15	San Gabriel Mountains	3	4	7	18	74	4	5	9	20	80
16	North Orange County	3	4	9	20	74	4	6	11	24	79
17	Central Orange County	3	4	9	22	85	4	6	11	25	92
18	North Coastal Orange County	3	5	9	22	76	5	7	12	26	83
19	Saddleback Valley	3	4	8	19	68	4	6	10	22	74
20	Central Orange County Coastal	3	5	9	22	76	5	7	12	26	83
21	Capistrano Valley	3	4	8	19	68	4	6	10	22	74
22	Norco/Corona	3	5	9	22	92	5	7	12	25	98
23	Metropolitan Riverside County	3	4	8	20	86	4	6	10	23	91
24	Perris Valley	3	4	8	20	86	4	6	10	23	91
25	Lake Elsinore	3	4	8	20	86	4	6	10	23	91
26	Temecula Valley	3	4	8	20	86	4	6	10	23	91
27	Anza Area	3	4	8	20	86	4	6	10	23	91
28	Hemet/San Jacinto Valley	3	4	8	20	86	4	6	10	23	91
29	Banning Airport	4	7	14	36	156	6	9	17	41	166
30	Coachella Valley	3	5	10	24	105	5	7	12	28	112
31	East Riverside County	3	5	10	24	105	5	7	12	28	112
32	Northwest San Bernardino Valley	4	6	12	32	141	5	8	14	36	150
33	Southwest San Bernardino Valley	4	6	12	32	141	5	8	14	36	150
34	Central San Bernardino Valley	3	5	9	23	98	4	6	12	26	104
35	East San Bernardino Valley	4	5	10	26	112	5	7	13	30	120
36	Central San Bernardino Mountains	4	6	12	32	141	5	8	14	36	150
37	West San Bernardino Valley	3	5	9	23	98	4	6	12	26	104
38	East San Bernardino Mountains	4	5	10	26	112	5	7	13	30	120



**Table B-1. PM2.5 Emission Thresholds for Construction (Continued)**

SRA No.	Source Receptor Area	Significance Threshold of 10.4 ug/m <sup>3</sup> Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site				
		5 Acre				
		25	50	100	200	500
1	Central LA	8	11	18	36	126
2	Northwest Coastal LA County	6	8	14	29	95
3	Southwest Coastal LA County	8	11	19	35	96
4	South Coastal LA County	8	10	18	39	120
5	Southeast LA County	7	10	15	30	103
6	West San Fernando Valley	6	8	13	26	96
7	East San Fernando Valley	8	10	15	28	86
8	West San Gabriel Valley	7	9	14	27	93
9	East San Gabriel Valley	8	11	17	35	116
10	Pomona/Walnut Valley	7	9	15	28	93
11	South San Gabriel Valley	9	12	19	34	104
12	South Central LA County	7	10	15	27	86
13	Santa Clarita Valley	6	8	13	26	95
15	San Gabriel Mountains	6	8	13	26	95
16	North Orange County	6	9	15	34	95
17	Central Orange County	7	9	15	32	109
18	North Coastal Orange County	9	11	18	35	101
19	Saddleback Valley	8	11	16	30	90
20	Central Orange County Coastal	9	11	18	35	101
21	Capistrano Valley	8	11	16	30	90
22	Norco/Corona	8	11	18	34	113
23	Metropolitan Riverside County	8	10	16	31	105
24	Perris Valley	8	10	16	31	105
25	Lake Elsinore	8	10	16	31	105
26	Temecula Valley	8	10	16	31	105
27	Anza Area	8	10	16	31	105
28	Hemet/San Jacinto Valley	8	10	16	31	105
29	Banning Airport	11	14	25	55	189
30	Coachella Valley	8	11	19	37	128
31	East Riverside County	8	11	19	37	128
32	Northwest San Bernardino Valley	9	12	21	45	170
33	Southwest San Bernardino Valley	9	12	21	45	170
34	Central San Bernardino Valley	8	10	17	35	120
35	East San Bernardino Valley	9	12	20	40	140
36	Central San Bernardino Mountains	9	12	21	45	170
37	West San Bernardino Valley	8	10	17	35	120
38	East San Bernardino Mountains	9	12	20	40	140



**Table B-2. PM2.5 Emission Thresholds for Operation**

SRA No.	Source Receptor Area	Significance Threshold of 2.5 ug/m <sup>3</sup> Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site									
		1 Acre					2 Acre				
		25	50	100	200	500	25	50	100	200	500
1	Central LA	1	2	3	6	25	2	2	3	7	27
2	Northwest Coastal LA County	1	1	2	5	19	1	2	3	6	20
3	Southwest Coastal LA County	1	2	3	5	18	1	2	3	6	20
4	South Coastal LA County	1	2	3	7	23	1	2	4	8	25
5	Southeast LA County	1	1	2	5	21	1	2	3	6	22
6	West San Fernando Valley	1	1	2	5	19	1	2	2	5	21
7	East San Fernando Valley	1	1	2	5	17	1	2	3	5	18
8	West San Gabriel Valley	1	1	2	5	19	1	2	3	5	20
9	East San Gabriel Valley	1	2	3	6	23	2	2	3	7	25
10	Pomona/Walnut Valley	1	1	2	5	18	1	2	3	5	20
11	South San Gabriel Valley	1	2	3	5	20	2	2	3	6	22
12	South Central LA County	1	1	2	4	17	1	2	3	5	18
13	Santa Clarita Valley	1	1	2	5	18	1	2	2	5	20
15	San Gabriel Mountains	1	1	2	5	18	1	2	2	5	20
16	North Orange County	1	1	3	5	18	1	2	3	6	19
17	Central Orange County	1	1	2	6	21	1	2	3	6	22
18	North Coastal Orange County	1	2	3	6	19	2	2	3	7	20
19	Saddleback Valley	1	1	2	5	17	1	2	3	6	18
20	Central Orange County Coastal	1	2	3	6	19	2	2	3	7	20
21	Capistrano Valley	1	1	2	5	17	1	2	3	6	18
22	Norco/Corona	1	2	3	6	23	2	2	3	6	24
23	Metropolitan Riverside County	1	1	2	5	21	1	2	3	6	22
24	Perris Valley	1	1	2	5	21	1	2	3	6	22
25	Lake Elsinore	1	1	2	5	21	1	2	3	6	22
26	Temecula Valley	1	1	2	5	21	1	2	3	6	22
27	Anza Area	1	1	2	5	21	1	2	3	6	22
28	Hemet/San Jacinto Valley	1	1	2	5	21	1	2	3	6	22
29	Banning Airport	1	2	4	9	38	2	3	5	10	40
30	Coachella Valley	1	2	3	6	26	2	2	3	7	27
31	East Riverside County	1	2	3	6	26	2	2	3	7	27
32	Northwest San Bernardino Valley	1	2	3	8	34	2	2	4	9	36
33	Southwest San Bernardino Valley	1	2	3	8	34	2	2	4	9	36
34	Central San Bernardino Valley	1	2	3	6	24	1	2	3	7	25
35	East San Bernardino Valley	1	2	3	7	27	2	2	4	8	29
36	Central San Bernardino Mountains	1	2	3	8	34	2	2	4	9	36
37	West San Bernardino Valley	1	2	3	6	24	1	2	3	7	25
38	East San Bernardino Mountains	1	2	3	7	27	2	2	4	8	29



**Table B-2. PM2.5 Emission Thresholds for Operation (Continued)**

SRA No.	Source Receptor Area	Significance Threshold of 2.5 ug/m3 Allowable emissions (lbs/day) as a function of receptor distance (meters) from boundary of site				
		5 Acre				
		25	50	100	200	500
1	Central LA	2	3	5	9	31
2	Northwest Coastal LA County	2	2	4	7	23
3	Southwest Coastal LA County	2	3	5	9	24
4	South Coastal LA County	2	3	5	10	29
5	Southeast LA County	2	3	4	8	25
6	West San Fernando Valley	2	2	3	7	23
7	East San Fernando Valley	2	3	4	7	21
8	West San Gabriel Valley	2	3	4	7	23
9	East San Gabriel Valley	2	3	5	9	28
10	Pomona/Walnut Valley	2	3	4	7	23
11	South San Gabriel Valley	2	3	5	9	25
12	South Central LA County	2	3	4	7	21
13	Santa Clarita Valley	2	2	3	7	23
15	San Gabriel Mountains	2	2	3	7	23
16	North Orange County	2	3	4	8	23
17	Central Orange County	2	3	4	8	27
18	North Coastal Orange County	2	3	5	9	25
19	Saddleback Valley	2	3	4	8	22
20	Central Orange County Coastal	2	3	5	9	25
21	Capistrano Valley	2	3	4	8	22
22	Norco/Corona	2	3	5	9	28
23	Metropolitan Riverside County	2	3	4	8	26
24	Perris Valley	2	3	4	8	26
25	Lake Elsinore	2	3	4	8	26
26	Temecula Valley	2	3	4	8	26
27	Anza Area	2	3	4	8	26
28	Hemet/San Jacinto Valley	2	3	4	8	26
29	Banning Airport	3	4	6	14	46
30	Coachella Valley	2	3	5	9	31
31	East Riverside County	2	3	5	9	31
32	Northwest San Bernardino Valley	2	3	5	11	41
33	Southwest San Bernardino Valley	2	3	5	11	41
34	Central San Bernardino Valley	2	3	5	9	29
35	East San Bernardino Valley	3	3	5	10	34
36	Central San Bernardino Mountains	2	3	5	11	41
37	West San Bernardino Valley	2	3	5	9	29
38	East San Bernardino Mountains	3	3	5	10	34



## Carroll, John (BOS)

---

**From:** Tom Lippe <lippelaw@sonic.net>  
**Sent:** Monday, November 30, 2015 10:01 AM  
**To:** BOS Legislation, (BOS)  
**Cc:** Carroll, John (BOS); dkelly@warriors.com; CPC-WarriorsAdmin; Givner, Jon (CAT); Stacy, Kate (CAT); Malamut, John (CAT); Nuru, Mohammed (DPW); Sanguinetti, Jerry (DPW); Sweiss, Fuad (DPW); Storrs, Bruce (DPW); Sanchez, Scott (CPC); Jones, Sarah (CPC); Rodgers, AnMarie (CPC); Starr, Aaron (CPC); Pearson, Audrey (CAT); Rahaim, John (CPC); Bollinger, Brett (CPC); Ionin, Jonas (CPC); kaufhauser@warriors.com; CMiller@stradasf.com; BOS-Supervisors; BOS-Legislative Aides; Calvillo, Angela (BOS); Somera, Alisa (BOS); Patrick Soluri; Osha Meserve; Susan Brandt-Hawley  
**Subject:** Re: Mission Bay Alliance, Warriors EIR CEQA Appeal; Appellants' Partial Brief, 3rd of 4 emails  
**Attachments:** Exhs 8-14 SENT Appeal EIR Brf Exhs 8-14.pdf  
**Categories:** 150990

Dear Clerk of the Board of Supervisors,

This email is the third of four. Attached are

- Exhibits 8-14 of 15 to Appellant's Partial Brief Re: Public Comment, Air Quality, Transportation, Water Quality, Biological, and Noise

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Law Offices of Thomas N. Lippe APC  
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On 11/30/2015 9:59 AM, Tom Lippe wrote:

Dear Clerk of the Board of Supervisors,

This email is the second of four. Attached are

- Exhibits 5-7 of 15 to Appellant's Partial Brief Re: Public Comment, Air Quality, Transportation, Water Quality, Biological, and Noise

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On 11/30/2015 9:57 AM, Tom Lippe wrote:

Dear Clerk of the Board of Supervisors

Attached, in .pdf format please find the above referenced appeal brief with exhibits.

Due to the size of the files, the brief and exhibits it will be transmitted in four (4) separate emails.

This email is the first of four. Attached are

- Appellant's Partial Brief Re: Public Comment, Air Quality, Transportation, Water Quality, Biological, and Noise
- Exhibits 1-4 of 15

Eighteen hard copies of same will be hand delivered to your office today by 12noon.

Thank you for your attention to this matter.

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On 11/24/2015 9:25 AM, Carroll, John (BOS) wrote:

Good morning,

I am resending this message in order to update the recipients list for this and future document distributions. If you received this message previously, feel free to ignore these links; I have not updated them.

The Office of the Clerk of the Board has scheduled a hearing date for Special Order before the Board of Supervisors on **December 8, 2015, at 3:00 p.m.** Please find linked below a letter regarding the Final Subsequent Environmental Impact Report certification and Tentative Map appeals for the proposed Golden State Warriors Event Center



Project, as well as direct links to the Office of Community Investment and Infrastructure's timely filing determination for the CEQA appeal.

[Clerk of the Board Letter Re: FSIER Appeal - November 23, 2015](#)

[OCII Memo Re: FSEIR Appeal - November 16, 2015](#)

[Clerk of the Board Letter Re: Tentative Map Appeal - November 23, 2015](#)

I invite you to review the entirety of both matters on our [Legislative Research Center](#) by following the links below.

[Board of Supervisors File No. 150990 - FSEIR Appeal](#)  
[Board of Supervisors File No. 151204 - Tentative Map Appeal](#)

Thank you,

**John Carroll**  
**Legislative Clerk**

Board of Supervisors  
San Francisco City Hall, Room 244  
San Francisco, CA 94102  
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Click [here](#) to complete a Board of Supervisors Customer Service Satisfaction form.

The [Legislative Research Center](#) provides 24-hour access to Board of Supervisors legislation and archived matters since August 1998.

***Disclosures:** Personal information that is provided in communications to the Board of Supervisors is subject to disclosure under the California Public Records Act and the San Francisco Sunshine Ordinance. Personal information provided will not be redacted. Members of the public are not required to provide personal identifying information when they communicate with the Board of Supervisors and its committees. All written or oral communications that members of the public submit to the Clerk's Office regarding pending legislation or hearings will be made available to all members of the public for inspection and copying. The Clerk's Office does not redact any information from these submissions. This means that personal information—including names, phone numbers, addresses and similar information that a member of the public elects to submit to the Board and its committees—may appear on the Board of Supervisors website or in other public documents that members of the public may inspect or copy.*



## EXHIBIT 8





# Diesel & Health Research

*This page last reviewed June 21, 2011*

## Background on Diesel Health Effects

Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM. In 1998, California identified diesel exhaust particulate matter (PM) as a [toxic air contaminant](#) based on its potential to cause cancer, premature death, and other health problems. Diesel engines also contribute to California's fine particulate matter (PM<sub>2.5</sub>) air quality problems. Those most vulnerable are children whose lungs are still developing and the elderly who may have other serious health problems. Based on year 2006-2008 emissions in California, diesel PM contributes each year to approximately 2,000 premature deaths, with an uncertainty range of 1,500 to 2,400. In addition, diesel soot causes visibility reduction and is a potent global warmer.



## Diesel Research Projects

View all of the latest reports and ongoing contracts in our [Research Projects Database Diesel Results page](#).

Over 50 research projects funded by ARB have been grouped into the following categories (the below



PDF files were created August 2006):

- [Exposure](#) (PDF - 90 KB)
- [Health Effects](#) (PDF - 99 KB)
- [General PM Exposure and Health Effects](#) (PDF - 85 KB)
- [Source Testing Methods Development](#) (PDF - 100 KB)
- [Emissions Inventory](#) (PDF - 83 KB)
- [Source Apportionment and Receptor Modeling](#) (PDF-94 KB)
- [Tunnel Studies](#) (PDF - 76 KB)
- [Other](#) (PDF - 85 KB)

The ARB has been leading several multi-agency research programs to characterize vehicle emissions. Find out more by visiting ARB's [Vehicle Emissions Research](#) web page.

## Diesel Related Information and Fact Sheets

---

- [ARB's Truck Stop web site](#)
- [Diesel Fact Sheets](#)
- [Toxic Air Contaminant Emissions from Diesel-fueled Engines](#)

For more information about Diesel Related Research, please contact [Dr. Linda Smith](#) at (916) 327-8225.







## EXHIBIT 9



**COMMISSION ON COMMUNITY INVESTMENT AND INFRASTRUCTURE**

**RESOLUTION NO. 62 - 2015**

**APPROVING AN AMENDED BUDGET FOR THE PERIOD JULY 1, 2015 THROUGH JUNE 30, 2016, TO INCREASE, BY AN AMOUNT NOT TO EXCEED \$135,000,000, BOND PROCEEDS TO BE RECEIVED BY THE SUCCESSOR AGENCY AND TO INCREASE ITS EXPENDITURE AUTHORITY BY \$135,000,000 AND AUTHORIZING THE EXECUTIVE DIRECTOR TO SUBMIT THE BUDGET TO THE MAYOR'S OFFICE AND THE BOARD OF SUPERVISORS**

**BASIS FOR RESOLUTION**

- WHEREAS, The Redevelopment Agency of the City and County of San Francisco (the "Former Redevelopment Agency") and FOCIL-MB, LLC (the "Master Developer"), as assignee of Catellus Development Corporation, are parties to a Mission Bay South Owner Participation Agreement executed November 16, 1998, and amended three times (as further amended, the "OPA"), which includes the "Mission Bay South Financing Plan" (the "Financing Plan") and which provides, among other things, that tax increment financing will be used to reimburse the Master Developer's expenditures for public infrastructure; and,
- WHEREAS, As part of the OPA, the Former Redevelopment Agency entered into a series of binding agreements, including the Mission Bay South Tax Increment Allocation Pledge Agreement executed November 16, 1998, by and between the City and County of San Francisco and the Former Redevelopment Agency (the "Pledge Agreement"), to which the Master Developer is an express third-party beneficiary; and,
- WHEREAS, On February 1, 2012, state law dissolved the Former Redevelopment Agency and required the transfer of certain of its assets and obligations to the Successor Agency to the Former Redevelopment Agency, commonly known as the Office of Community Investment and Infrastructure ("Successor Agency" or "OCII"), Cal. Health & Safety Code §§ 34170 et seq. ("Redevelopment Dissolution Law"); and,
- WHEREAS, The California Department of Finance has finally and conclusively determined that the OPA and Pledge Agreement are enforceable obligations that survived the dissolution of the Former Redevelopment Agency and that became the responsibility of the Successor Agency; and,
- WHEREAS, The OPA, including the Financing Plan and the Pledge Agreement, contain an irrevocable pledge of property tax increment (formerly tax increment revenues) to the payment of Mission Bay South Redevelopment Project Area Infrastructure Costs, as defined in the Financing Plan, ("Infrastructure Costs") and the Successor Agency is obligated, under the OPA, including the Financing Plan and the Pledge



Agreement, to issue bonds or incur other indebtedness secured by an irrevocable pledge of tax increment revenues to pay such Infrastructure Costs; and,

WHEREAS, The Master Developer has submitted a written request to the Successor Agency, Letter, November 14, 2014, and the Successor Agency staff, its consultants and bond counsel, and the Master Developer have met and conferred, over several months, and have determined that, pursuant to the Financing Plan and the Pledge Agreement, but subject to the approval of the Oversight Board and the California Department of Finance, the Successor Agency will issue additional Tax Allocation Debt to reimburse the Master Developer for Infrastructure Costs; and,

WHEREAS, Section 34177.5(a)(4) provides that a successor agency may, subject to the approval of the oversight board and the California Department of Finance, issue bonds or incur other indebtedness to make payments under enforceable obligations when the enforceable obligations include the irrevocable pledge of property tax increment, formerly tax increment revenues, or other funds and the obligation to issue bonds secured by that pledge; and,

WHEREAS, Under Redevelopment Dissolution Law, Cal. Health & Safety Code Section 34173, and San Francisco Ordinance No. 215-12 (Oct. 4, 2012), the OCII is a separate legal entity from the City and is subject to the governance of the Board of Supervisors of the City and County of San Francisco (“Board of Supervisor”), acting in its legislative capacity. Under Section 33606 of the California Health and Safety Code, the Board of Supervisors must approve the Successor Agency’s annual budget, which is required to include proposed revenues, expenditures, and indebtedness, and must also approve budget amendments; and,

WHEREAS, On May 5, 2015, this Commission approved, by Resolution 25-2015, a budget for FY 2015-16; subsequently, the Board of Supervisors approved, by Resolution No.278-15 (July 30, 2015), the Successor Agency budget for FY 2015-16 and authorized the issuance of bonds not to exceed \$51,000,000; and,

WHEREAS, Subsequent to the final approval of the Successor Agency’s FY 2015-16 budget, the Successor Agency has determined that the issuance of additional tax allocation debt is necessary and appropriate to fulfill its obligations under the OPA. The proposed issuance includes two series of tax allocation revenue bonds for Mission Bay South Redevelopment Project Area in an aggregate principal amount not to exceed \$135 million and increases budgetary expenditure by \$135 million (“Additional Tax Allocation Debt”); and,

WHEREAS, The proceeds of the bonds will, as required by the OPA, be used for the reimbursement of Infrastructure Costs and costs associated with the issuance of those bonds; and,

WHEREAS, The bonds will likely issue in two series: Series 2015C in a principal amount not to exceed \$45 million will be a “parity bond” issued on the same terms as the currently outstanding Mission Bay South Redevelopment Project Area tax-exempt tax allocation bonds; and Series 2015D subordinate bond in a principal amount



not to exceed \$90 million, the debt service on which will be payable only after the debt service on the parity bonds has been paid; and,

WHEREAS, Issuance of the Additional Tax Allocation Debt will require an amendment to the Successor Agency's budget for FY 2015-16 to receive and expend an additional \$135 million and will also require Board of Supervisors' authorization of the additional debt; and,

WHEREAS, Approval of the FY 2015-16 Budget is not a "Project," as defined by the California Environmental Quality Act ("CEQA") Guidelines Sections 15378(b)(4) and 15378(b)(5). The budget will provide administrative, technical assistance support, and funding for activities authorized under Redevelopment Dissolution Law. Actions related to the approval of the budget will not independently result in a physical change in the environment are not subject to environmental review under CEQA; now, therefore, be it

RESOLVED, That the Successor Agency approves amendments to its fiscal year budget for the period July 1, 2015 through June 30, 2016 ("FY 2015-16 Budget"), attached to this Resolution as Attachment A, to (1) increase the amount of bond proceeds to be received by the Successor Agency in an additional principal amount not to exceed \$135 million and (2) increase expenditure authority by \$135 million; and furthermore authorizes the Executive Director to transmit the FY 2015-16 Amended Budget to the Mayor's Office and the Board of Supervisors and to make any nonmaterial changes that may be proposed during review by the Mayor or Board of Supervisors, provided that the Executive Director shall seek Commission approval for any material changes to the budget.

Attachment A: OCII FY 2015-16 Budget, as amended

I hereby certify that the foregoing resolution was adopted by the Commission at its meeting of October 20, 2015.

---

Commission Secretary



Office of Community  
Investment & Infrastructure  
Successor to the  
San Francisco Redevelopment Agency

FY 2015-16 Budget  
Amended October 20, 2015



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# OFFICE OF COMMUNITY INVESTMENT & INFRASTRUCTURE

## FY 2015-16 Proposed Budget

### 1. Background

The Office of Community Investment & Infrastructure is the Successor OCII to the San Francisco Redevelopment Agency. On February 1, 2012 the San Francisco Redevelopment Agency (“SFRA”), along with all 400 redevelopment agencies in California, was dissolved pursuant to Assembly Bill 26 (“AB 26”) and by order of the California State Supreme Court. In June of 2012, Assembly Bill 1484 was passed to further clarify certain aspects of the dissolution of redevelopment agencies, and together the two assembly bills are known as the “Dissolution Law”. Pursuant to the Dissolution Law and to Board of Supervisors Ordinance 215-12, the Office of Community Investment and Infrastructure (“OCII”) is the Successor OCII to the San Francisco Redevelopment Agency. As Successor Agency, OCII succeeds to the organizational status of SFRA but without any legal authority to participate in redevelopment activities except to complete work related to approved enforceable obligations.

Those enforceable obligations are related to: (1) the Major Approved Development Projects (defined as the Hunters Point Shipyard / Candlestick Point Redevelopment Project, the Mission Bay North and South Redevelopment Project, and the Transbay Redevelopment Project); (2) the asset management of SFRA assets such as Yerba Buena Gardens, existing economic development agreements such as loans, grants, or owner participation agreements, and other real property and assets of SFRA that must be wound down under the Dissolution Law; and (3) OCII’s Retained Housing Obligations which include ensuring the development of affordable housing in the Major Approved Development Projects.

OCII’s obligations are a key part of the Mayor’s plan to create 30,000 units by 2020, with one-third, or 10,000, of them as permanently affordable. In fact OCII’s Retained Housing Obligations will result in over 3,300 affordable units by 2020 through both stand-alone projects funded with OCII subsidy as well as inclusionary affordable units provided through private development. This includes several OCII sponsored projects that received completion permits just before the close of 2013, and opened their doors to welcome new residents in 253 affordable units in early 2014. The 1180 4<sup>th</sup> Street project delivered another 150 units later in 2014. Below is a summary of OCII’s contribution to the Mayor’s plan to create this vitally important resource for San Francisco.

#### Mayor’s Plan for 10,000 Affordable Units by 2020: OCII Pipeline

Project Status	Affordable Stand-Alone Units	Affordable Inclusionary Units	Totals
Completed & Occupied	400		<b>400</b>
In Construction	543	102	<b>645</b>
In Predevelopment	754	272	<b>1,026</b>
In Preliminary Planning	936	359	<b>1,011</b>
<b>Totals</b>	<b>2,633</b>	<b>733</b>	<b>3,366</b>

OCII FY 2015-16 Budget Submitted to the San Francisco Board of Supervisors, June 1, 2015 as Amended July 21, 2015



## *Governance*

The Commission on Community Investment and Infrastructure, which was established by the City through Ordinance 215-12, is the main governing body of OCII and is responsible for implementing and completing the enforceable obligations of the former redevelopment projects, including exercising land use and design approval authority for the Major Approved Development Projects. The Commission is comprised of five members appointed by the Mayor and confirmed by the Board of Supervisors, with two of the seats held by residents of the two supervisorial districts with the largest amounts of the Major Approved Development Projects.

The Dissolution Law requires that there be an additional governing body known as an Oversight Board to oversee certain functions of OCII as the Successor OCII, and which has a fiduciary duty to the holders of enforceable obligations with the former Redevelopment Agency and to the taxing entities that are entitled to an allocation of property taxes. The Oversight Board of the City and County of San Francisco reviews and approves OCII's expenditures and use of tax increment through semi-annual Recognized Obligation Payment Schedules ("ROPS"), as well as approving the issuance of any bonds, transfers of property, and other matters related to the dissolution of SFRA. The Mayor appoints four of the seven members of the Oversight Board, subject to confirmation by the Board of Supervisors. One of those four members must represent the largest group of former OCII employees. The remaining three members are representatives of affected taxing entities: the Bay Area Rapid Transit District, the San Francisco Unified School District, and the San Francisco Community College.

The Dissolution Law requires that OCII be a separate legal entity from the City and County of San Francisco, just as SFRA was. However, OCII is still subject to the governance of the City acting through its legislative capacity. Accordingly, the OCII's budget must be approved first by the Commission and subsequently approved by the Mayor and Board of Supervisors.



## 2. Budget Summary

As shown in Table 1, the Fiscal Year (“FY”) 2015-16 proposed budget of \$629 million represents an increase of \$251.7 million compared to the prior year, largely due to:

- The anticipated receipt of \$257 million in proceeds from the sale of publicly-owned land in the Transbay area, of which \$243 million represents land sales proceeds from Zone 1 which will be provided to the Transbay Joint Powers Authority to help finance construction of the Transit Center, and the remaining \$12 million will help to subsidize affordable housing development.
- The anticipated issuance and use of \$45 million in new taxable bond proceeds to finance affordable housing in the Mission Bay South and Hunters Point Shipyard/Candlestick Point project areas.
- \$111 million reduction in one-time developer payments and \$28 million reduction in prior year fund balances included in the FY 2014-15 budget and designated for affordable housing.
- \$10 million reduction in anticipated Property Tax – Mission Bay revenues due to a one-time correction resulting in additional property tax allocated to Mission Bay in FY 2014-15.
- \$7 million reduction in hotel tax revenues for debt service due to the final payment made during FY 2014-15 on 1992 hotel tax bonds for the Moscone Convention Center, leaving only one remaining series of hotel tax-funded bonds.
- The anticipated issuance and use of \$135 million in new tax-exempt bond proceeds to finance the reimbursement of infrastructure costs in Mission Bay South.

Table 2 shows the OCII FY 2015-16 budget by high-level categories of spending and funding source. These show that excluding debt service and pass-throughs to the Transbay Joint Powers Authority, 36% (\$98 million) of the budget is for Affordable Housing, 53% for infrastructure, 7% for asset management (including Yerba Buena Gardens programming and maintenance), and 4% for project management and administration.

Looking at budget sources for current operations, proposed new bond proceeds make up 64% of the budget, while property tax, developer payments, and fund balances constitute approximately 10% each. Rents and garage revenues make up 6%, with less than 1% attributed to various other revenues.

Table 3 shows the proposed FY 2015-16 budget by project.



**Table 1. FY 2015-16 Proposed Budget, \$ Thousands**

<b>Sources</b>	<b>FY 15 Budget</b>	<b>FY 16 Adopted</b>	<b>Diff FY 15 vs FY 16</b>	<b>FY 16 Proposed Amended</b>
Property Tax Increment - Debt Service	\$ 97,583	98,234	\$ 651	\$ 98,234
Property Tax Increment - Mission Bay	17,120	6,300	\$ (10,820)	6,300
Property Tax Increment - Admin Allowance	2,910	3,301	\$ 391	3,301
Property Tax Increment - Other	13,695	22,480	\$ 8,785	22,480
<b>Subtotal Property Tax Increment</b>	<b>131,309</b>	<b>130,315</b>	<b>(994)</b>	<b>130,315</b>
Land Sale Proceeds	19,000	257,240	\$ 238,240	257,240
New Bond Proceeds	300	44,679	\$ 44,379	179,679
Developer Payments	123,724	12,226	\$(111,498)	12,226
Rent, Lease & Garage Revenues	22,873	16,009	\$ (6,864)	16,009
US Navy Cooperative Agreement	290	350	\$ 60	350
Loan Repayments	106	50	\$ (56)	50
City Reimbursements for OCII Staff	536	303	\$ (233)	303
Hotel Tax/Moscone Revs for Debt Service	11,805	5,024	\$ (6,782)	5,024
<b>Subtotal Current Revenues</b>	<b>309,943</b>	<b>466,196</b>	<b>156,253</b>	<b>601,196</b>
Fund Balance - Housing	49,829	21,432	\$ (28,398)	21,432
Fund Balance - Other	17,695	6,338	(11,357)	6,338
<b>Total Sources</b>	<b>377,467</b>	<b>493,966</b>	<b>116,499</b>	<b>628,966</b>
<b>Uses - Operations</b>				
Salaries and Benefits	8,414	7,616	\$ (797)	7,616
Affordable Housing Services	619	827	\$ 208	827
Rent	441	454	\$ 13	454
Retiree Health and Pension UAAL Contribution	1,040	1,577	\$ 537	1,577
Auditing & Accounting Services	210	545	\$ 335	545
Legal Services	1,395	2,215	\$ 820	2,215
Planning & Infrastructure Rww	2,815	2,415	\$ (400)	2,415
Asset Management	6,879	6,770	\$ (109)	6,770
Workforce Development Svcs	189	250	\$ 61	250
Other Professional Services	7,322	4,058	\$ (3,265)	4,058
Grants to Community-Based Organizations	5,312	4,005	\$ (1,307)	4,005
Payments to other Public Agencies	4,456	4,177	\$ (278)	4,177
Other Current Expenses	4,010	2,002	\$ (2,007)	2,002
<b>Subtotal Operations</b>	<b>43,102</b>	<b>36,911</b>	<b>(6,191)</b>	<b>36,911</b>
Affordable Housing Loans	103,172	96,500	\$ (6,672)	96,500
Affordable Housing Reserve	69,098	-	\$ (69,098)	-
Development Infrastructure	24,283	5,860	\$ (18,423)	140,860
YBG Capital Reserve	3,167	-	\$ (3,167)	-
Community Grants Reserve	1,496	-	\$ (1,496)	-
Pass-through to TJPA	3,000	245,700	\$ 242,700	245,700
Public Art	1,378	-	\$ (1,378)	-
Other Use of Bond Proceeds	9,217	-	\$ (9,217)	-
Debt Service	119,555	108,995	(10,560)	108,995
<b>Total Uses</b>	<b>\$377,467</b>	<b>\$493,966</b>	<b>\$116,499</b>	<b>\$628,966</b>
Note: Salaries and Benefits includes OCII staff and City Administrator staff assigned to OCII.				



**Table 2. FY 2015-16 Budget Summary by Sources and Uses, \$ Thousands**

Uses - Current Operations	Developer Pmts	Property Tax	Bond Proceeds	Fund Balances	Property Rents and Garage Revs	Other	Total by Use	Subtotal Use %
<b>Affordable Housing</b>	\$ 14,740	\$ 17,818	44,679	\$ 21,085	\$ -	\$ -	\$ 98,323	36%
<b>Infrastructure</b>	8,128	2,050	135,000	-	536	130	145,844	53%
<b>Asset Management</b>	250	947	-	3,960	14,766	50	19,973	7%
<b>Project Mgmt &amp; Admin</b>	3,848	5,966	-	1,347	-	694	11,855	4%
<b>Subtotal by Source</b>	<b>\$ 26,966</b>	<b>\$ 26,781</b>	<b>\$ 179,679</b>	<b>\$ 26,392</b>	<b>\$ 15,302</b>	<b>\$ 874</b>	<b>\$ 275,994</b>	100%
<b>Subtotal Source %</b>	10%	10%	65%	10%	6%	0%	100%	
<b>Debt Service</b>	-	100,334	-	1,378	536	5,024	107,272	
<b>Pass-through to TJPA</b>	242,500	3,200	-	-	-	-	245,700	
<b>Total Budget</b>	<b>\$ 269,466</b>	<b>\$ 130,315</b>	<b>\$ 179,680</b>	<b>\$ 27,770</b>	<b>\$ 15,838</b>	<b>\$ 5,898</b>	<b>\$ 628,966</b>	

**Table 3. Proposed FY 2015-16 Budget by Project Area/Cost Center, \$ Thousands**

Sources	Admin	Debt Service	HPS/CP	MBN	MBS	TBY	YBC	YBG	SBH	Other	Total FY 15-16
Property Tax Increment - Debt Service	-	98,234	-	-	-	-	-	-	-	-	98,234
Property Tax Increment - Admin Allowance	1,066	-	1,525	308	-	402	-	-	-	-	3,301
Property Tax Increment - Other	1,577	50	-	2,050	4,250	18,134	-	-	-	2,720	28,780
Land Sale Proceeds	-	-	-	-	-	257,240	-	-	-	-	257,240
New Bond Proceeds	-	-	7,500	-	168,179	4,000	-	-	-	-	179,679
Developer Payments	150	-	9,701	178	1,413	475	309	-	-	-	12,226
Rent, Lease & Garage Revenues	-	536	316	-	-	168	4,330	8,198	1,738	723	16,009
US Navy Cooperative Agreement	-	-	350	-	-	-	-	-	-	-	350
Loan Repayments	-	-	-	-	-	-	-	-	-	50	50
City Reimbursements for OCII Staff	-	-	-	-	-	-	-	-	-	303	303
Hotel Tax/Moscone Revs for Debt Service	-	5,024	-	-	-	-	-	-	-	-	5,024
Fund Balance - Housing	-	-	94	-	-	21,085	-	-	-	253	21,432
Fund Balance - Other	-	1,378	-	-	-	1,000	-	3,960	-	-	6,338
<b>Total Sources</b>	<b>2,793</b>	<b>105,222</b>	<b>19,486</b>	<b>2,536</b>	<b>173,843</b>	<b>302,504</b>	<b>4,639</b>	<b>12,158</b>	<b>1,738</b>	<b>4,048</b>	<b>628,966</b>
<b>Uses - Operations</b>											
Allocated Staff & Operating Expenses	(9,062)	-	4,077	426	1,578	2,144	69	213	-	555	-
Salaries and Benefits	7,616	-	-	-	-	-	-	-	-	-	7,616
Affordable Housing Services	827	-	-	-	-	-	-	-	-	-	827
Rent	454	-	-	-	-	-	-	-	-	-	454
Retiree Health and Pension UAAL Contribution	1,577	-	-	-	-	-	-	-	-	-	1,577
Auditing & Accounting Services	185	-	-	60	300	-	-	-	-	-	545
Legal Services	265	-	1,585	-	-	275	-	40	-	50	2,215
Planning & Infrastructure Rvw	-	-	2,315	-	50	50	-	-	-	-	2,415
Asset Management	-	-	-	-	-	-	1,320	3,780	-	1,670	6,770
Workforce Development Svcs	-	-	200	-	-	50	-	-	-	-	250
Other Professional Services	275	50	3,433	-	-	300	-	-	-	-	4,058
Grants to Community-Based Organizations	-	-	-	-	-	-	-	4,005	-	-	4,005
Payments to other Public Agencies	-	-	316	-	-	-	3,250	90	521	-	4,177
Other Current Expenses	656	-	60	-	-	-	-	70	1,217	-	2,002
<b>Subtotal Uses - Operations</b>	<b>2,793</b>	<b>50</b>	<b>11,986</b>	<b>486</b>	<b>1,928</b>	<b>2,819</b>	<b>4,639</b>	<b>8,198</b>	<b>1,738</b>	<b>2,275</b>	<b>36,911</b>
<b>Other Uses</b>											
Affordable Housing Loans	-	-	7,500	-	35,915	53,085	-	-	-	-	96,500
Development Infrastructure	-	-	-	-	136,000	900	-	3,960	-	-	140,860
Pass-through to TJPA	-	-	-	-	-	245,700	-	-	-	-	245,700
Debt Service	-	105,172	-	2,050	-	-	-	-	-	1,773	108,995
<b>Total Uses</b>	<b>2,793</b>	<b>105,222</b>	<b>19,486</b>	<b>2,536</b>	<b>173,843</b>	<b>302,504</b>	<b>4,639</b>	<b>12,158</b>	<b>1,738</b>	<b>4,048</b>	<b>628,966</b>



OCII also administers six Community Facilities Districts (“CFDs”) created under California’s Mello-Roos Act which support infrastructure and maintenance activities in project areas with funds from dedicated parcel taxes. Although the CFD activities are not included in OCII’s budget, their spending plans, annual levies and outstanding debt as of June 30, 2015 are provided for informational purposes in Appendix 1.

In addition to authorizing expenditure of amounts specified in the FY 2015-16 budget, the enabling resolution accompanying the budget would:

- Allow OCII to transfer budgeted appropriations within the projects shown on Table 3 and to transfer appropriations for allocated staffing and overhead costs between projects.
- Direct that the expenditure authority funded by proposed tax allocation bonds shall be reserved and subject to release after receipt by OCII of such bond funds or substitute financing.
- Authorize OCII to expend the interest earned on bond proceeds for purposes consistent with the bond indentures, subject to consistency with an approved ROPS, and provided that OCII has determined that such interest is not subject to Internal Revenue Service arbitrage restrictions.
- Authorize OCII to accept and expend any pledged property tax revenues in the Mission Bay North and South, Rincon Point South Beach and Transbay project areas, and Transbay revenues from sale of formerly state-owned properties, for their pledged purposes, subject to consistency with an approved ROPS.
- Authorize the Executive Director to expend funds appropriated in prior years in reserve accounts designated for affordable housing projects, community benefits grants and Yerba Buena Gardens capital account for their designated purposes; subject to the availability of funds and consistency with an approved ROPS.

### **3. Administration Expenses and Budgeted Positions**

Table 4 provides a summary of OCII’s proposed \$11.9 million FY 2015-16 administrative budget, representing a \$40 thousand decrease from the prior year.



**Table 4. Proposed FY 2015-16 Administrative Budget, \$ Thousands**

<b>Sources</b>	<b>FY 14-15 Bgt</b>	<b>FY 15-16 Adopted</b>	<b>Diff</b>
Property Tax Increment - Administrative Allowance	\$ 2,910	\$ 3,301	\$ 391
Property Tax Increment - Retiree Health and UAAL	1,040	1,577	537
Developer Payments	150	150	-
Staff & Operating Expenses Allocated to Projects	7,795	6,827	(968)
<b>Total Sources</b>	<b>\$ 11,895</b>	<b>\$ 11,855</b>	<b>\$ (40)</b>
<b>Uses</b>	<b>FY 14-15 Bgt</b>	<b>FY 15-16 Adopted</b>	<b>Diff</b>
Salaries and Benefits	\$ 8,414	\$ 7,616	\$ (798)
Affordable Housing Services	619	827	\$ 208
Rent	441	454	\$ 13
Retiree Health and Pension UAAL Contribution	1,040	1,577	\$ 537
Auditing & Accounting Services	210	185	\$ (25)
Legal Services	285	265	\$ (20)
Other Professional Services	275	275	\$ -
Other Current Expenses	611	656	\$ 45
<b>Total Uses</b>	<b>\$ 11,895</b>	<b>\$ 11,855</b>	<b>\$ (40)</b>

The \$7.8 million budget for staff salaries and benefits includes both OCII staff and City Administrator staff assigned to OCII. This budget represents a \$798,000 decrease from the approved FY 2014-15 budget, despite the provision of cost-of-living increases to OCII staff that match those received by City of San Francisco staff. The decrease is primarily due to:

- Transfer of 9.6 FTE South Beach Harbor staff to the Port of San Francisco due to the assumption by the Port of responsibility for operation of South Beach Harbor and transfer of 2 FTE OCII staff to the Mayor's Office of Housing and Community Development to continue work on former SFRA housing programs transferred to the City after redevelopment dissolution. Savings from these transfers is partially offset by:
- Proposed addition of full time equivalent ("FTE") positions to help OCII accelerate affordable housing production and other horizontal and vertical development in FY 2015-16, as described in the "Budgeted Positions" section below.
- Decrease in the CalPERS employer share contribution as a percentage of payroll from 18.19% in FY 2014-15 to 9.52% in FY 2015-16, with the "unfunded accrued actuarial liability ("UAAL") billed separately as a lump sum and included in the budget separately. The employer contribution is further offset by the supplemental employee contribution of 1% salary, rising to 2.25% in October 2015 in accordance with recently negotiated labor agreements.

Other items of note include:



- **Affordable Housing Services:** The \$827,000 budget represents \$687,000 in staffing support provided by the Mayor’s Office of Housing and Community Development and \$140,000 for OCII’s contribution towards the software development costs of MOHCD’s new online Affordable Housing Data Portal (SF DAHLIA). OCII’s contribution is 10% of the overall software cost, based on an estimate of OCII projects’ usage of the system.
- **Retiree Health and Pension Unfunded Accrued Actuarial Liability (“UAAL”) contribution:** This includes \$1,040,000 budgeted for retiree health insurance obligations, and a further \$536,660 budgeted for OCII’s contribution to its pension liability, as calculated under a new billing formula and procedure established by the California Public Employees Retirement System (“CalPERS”) starting in FY 2015-16. Under the existing system, agencies such as OCII were billed by CalPERS a percentage of their active employee payroll to cover both the pension benefit being earned by their employees each year (also known as the “normal cost”) and an additional percentage for the UAAL—an estimated amount needed to catch up for unfunded liabilities in the system as a result of the pension system not meeting expectations in prior years or as a result of new demographic assumptions, such as the realization that retirees are living longer and the system will need to pay out more funds as a result. Under the new formula, the CalPERS bills for the UAAL portion as a fixed dollar amount each year rather than as a percentage of payroll.
- **Legal Services:** The \$265,000 budget includes:
  - \$125,000 budget for City Attorney’s Office general legal support of OCII.
  - \$140,000 budget for other legal support that may be required by OCII.

Note that project-specific budgets include an additional \$1.1 million for City Attorney’s Office and \$0.85 million for other legal assistance.

- **Other Professional Services:** The \$275,000 budget includes \$100,000 for public communications support, \$20,000 for records management support, \$15,000 for Office of Labor Standards Enforcement investigations support and \$140,000 contingency budget for unforeseen requirements that may come up during the year, unchanged from the FY 2014-15 budgeted amounts.
- **Other Current Expenses:** The \$662,000 budget includes:
  - \$270,000 for insurance premiums and allowance for deductibles;
  - \$105,000 for software licensing fees
  - \$ 96,000 for mail, e-mail, internet, server hosting, telephone, copy machine and records storage
  - \$ 60,000 for office supplies and employee training and field expenses
  - \$ 60,000 for Commission and Oversight Board meeting expenses, including audiovisual recording of Commission meetings by SFGOV TV.
  - \$ 30,000 for information technology supplies.
  - \$ 41,000 for other expenses.



## **FY 2015-16 Budgeted Positions**

Budgeted positions and salary ranges are shown in Table 5. Salary ranges shown are as of May 2015 and are subject to change based on negotiated labor agreements. Salary ranges are for information only-- should there be any discrepancy between the salary ranges shown here and negotiated labor agreements, the negotiated labor agreement amount would be determinative. In special circumstances, and in accord with OCII's Personnel Policy, individuals may receive higher salaries than the ranges shown below to reflect acting assignments or unusual recruitment conditions.

In February 2015, OCII employees were offered positions within the City and County of San Francisco at comparable salaries that would allow them to continue working on OCII projects through a contractual arrangement between OCII and the City. At that time, 21 employees accepted the offer, including all nine employees working at South Beach Harbor, who will continue working at the Harbor after the ownership of the facility transfers to the Port of San Francisco, and two employees working on City housing programs that were assumed by the Mayor's Office of Housing and Community Development following redevelopment dissolution. The FY 2015-16 budgeted positions listed in Table 5 reflect the remaining OCII employees plus those former OCII employees who transferred to the City and are continuing to work on OCII work under contract to OCII.

The FY 2015-16 budget includes a net addition of six full time equivalent positions ("FTEs"), reflecting the increased workload based on the anticipated timing of development in the Major Approved Development Projects, along with a proposed accelerated work schedule for affordable housing projects, including up to 6 new Requests for Proposals ("RFPs") for affordable housing projects. The proposed new positions and position changes are:

- Addition of a Deputy General Counsel to support the OCII General Counsel with the increasing volume of legal review work. The cost of this position is partially offset by a reduction in the work order with the City Attorney's office from FY 2014-15 budgeted levels to reflect the actual level of support anticipated to be provided by that office.
- Addition of a Human Resources and Administrative Services manager position to bring in house services that were provided by the City Administrator's Office.
- Addition of one Project Manager, two Senior Development Specialists and one Management Assistant II to assist with the volume of development work proposed for FY 2015-16.



**Table 5. FY 15-16 Proposed FTE, Compared to Prior Year**

Class	Class Title	Biweekly Salary Range	FY 14/15 Adj Bgt	FY 15/16 Proposed
500	Executive Director	\$6,968 - \$8,470	1	1
520	General Counsel	\$6,542 - \$7,952	1	1
1060	Deputy Director, Finance and Admin	\$6,099 - \$7,413	1	1
1060	Deputy Director	\$6,099 - \$7,413	1	1
560	Human Resources/Admin Svcs Mngr	\$3,897 - \$4,737	0	1
525	Deputy General Counsel	\$5,268 - \$6,403	0	1
565	Senior Civil Engineer	\$4,935 - \$5,999	1	1
535	Development Services Manager	\$4,630 - \$5,628	1	1
550	Senior Project Manager	\$4,575 - \$5,561	1	1
590	Project Manager	\$3,952 - \$4,804	3	4
990	Assistant Project Manager	\$3,718 - \$4,519	2	2
540	Housing Program Manager	\$4,629 - \$5,627	1	1
595	Senior Development Specialist	\$3,999 - \$4,861	1	3
615	Development Specialist	\$3,718 - \$4,519	8	8
705	Assistant Development Specialist	\$3,212 - \$3,904	1	1
930	Staff Associate V	\$3,952 - \$4,804	1	1
585	Contract Compliance Supervisor	\$4,316 - \$5,246	1	1
1065	Contract Compliance Specialist III	\$4,087 - \$4,968	1	1
640	Contract Compliance Specialist II	\$3,121 - \$3,794	1	1
970	Accounting Supervisor	\$4,316 - \$5,246	1	1
670	Financial Systems Accountant	\$3,575 - \$4,345	1	1
695	Accountant III	\$3,088 - \$3,753	1	1
775	Accountant II	\$2,554 - \$3,104	1	1
630	Senior Financial Analyst	\$4,070 - \$4,947	1	1
720	Senior Programmer Analyst	\$3,203 - \$3,893	1	1
1030	Management Assistant III	\$2,905 - \$3,531	3	3
1035	Management Assistant II	\$2,534 - \$3,080	2	3
855	Records Specialist II	\$1,985 - \$2,413	1	1
860	Senior Office Assistant	\$1,985 - \$2,413	1	1
	<b>Subtotal without South Beach Harbor</b>		<b>40</b>	<b>46</b>
	OCII Positions transferred to City for City Housing Work effective FY 15/16		2	0
	South Beach Harbor Positions (to Port of SF in FY 15-16)		8.6	0
	<b>Total including work transferred to City</b>		<b>50.6</b>	<b>46</b>
	<b>Additional Temporary Staff Budget (rounded)</b>		\$300,000	\$370,000

#### 4. Debt Service

Table 6 provides a summary of OCII's proposed \$105 million FY 2015-16 debt service budget, representing a decrease of \$6.7 million from the prior year:



## EXHIBIT 10



**CITY AND COUNTY OF SAN FRANCISCO**  
**BOARD OF SUPERVISORS**  
**BUDGET AND LEGISLATIVE ANALYST**

1390 Market Street, Suite 1150, San Francisco, CA 94102 (415) 552-9292  
FAX (415) 252-0461

November 6, 2015

**TO:** Budget and Finance Committee

**FROM:** Budget and Legislative Analyst



**SUBJECT:** November 9, 2015 Budget and Finance Committee Meeting

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<b>Item 2</b> <b>File 15-0995</b>	<b>Department:</b> Office of Community Infrastructure and Investment Office of Economic and Workforce Development
<b>EXECUTIVE SUMMARY</b>	
<p style="text-align: center;"><b>Legislative Objectives</b></p>	
<ul style="list-style-type: none"> <li>The proposed ordinance amends the Administrative Code to add a new Section 10.100-364 to establish the Mission Bay Transportation Improvement Fund to pay for additional services provided by San Francisco Municipal Transportation Agency (SFMTA), San Francisco Police Department (SFPD), and Department of Public Works (DPW) to the Warriors Project.</li> </ul>	
<p style="text-align: center;"><b>Key Points</b></p>	
<ul style="list-style-type: none"> <li>The Golden State Warriors Arena, LLC (Warriors) plans to construct a multipurpose event center and retail and office project at 16<sup>th</sup> and Third Streets in the Mission Bay neighborhood (Warriors Project). The SFMTA, SFPD, and DPW will provide services to the neighborhood surrounding the Warriors Project.</li> <li>The proposed ordinance establishes the Mission Bay Transportation Improvement Fund (Fund) as a category four fund, setting aside General Fund monies to pay for services provided by SFMTA, SFPD, and DPW to the Warriors Project. It is anticipated that the revenues to be realized from the Warriors Project will provide for the needed funding sources to the General Fund.</li> </ul>	
<p style="text-align: center;"><b>Fiscal Impact</b></p>	
<ul style="list-style-type: none"> <li>SFMTA's estimated costs to purchase four new light rail vehicles and make other transportation system improvements to accommodate the Warriors Project are \$55.3 million. Estimated revenues generated by the Warriors Project to pay these costs are \$25.4 million, resulting in a revenue shortfall of \$29.9 million. The estimated revenue shortfall of \$29.9 million will be financed through sale of SFMTA revenue bonds or other financing source. Annual debt service is projected to be paid from tax revenues generated by the Warriors Project.</li> <li>SFMTA's expenditures for transportation services to the Warriors Project will be paid by SFMTA fare and parking revenues generated by these services. The Mission Bay Transportation Improvement Fund will pay for SFMTA service to the Warriors Project not covered by these fare and parking revenues, and for SFPD and DPW services to the Warriors Project.</li> <li>City departments' estimated annual expenditures to provide services to the Warriors Project are \$10.1 million. These expenditures will be funded by an estimated \$11.6 million in revenues generated by the Warriors Project, resulting in net revenues of \$1.5 million.</li> </ul>	



**Policy Consideration**

- If the Warriors Project generates insufficient General Fund tax revenues to pay for all of SFMTA's costs to provide transportation services to the Warriors Project, the Warriors will need to directly provide some transportation services.
- Only General Fund tax revenues directly generated by the Warriors Project should be included in the Controller's estimates of Project revenues to the City.

**Recommendations**

- Amend the proposed ordinance to specify that if the annual cap of 90 percent of General Fund revenues from the Project site and events at the Event Center is insufficient to cover SFMTA's expenditures for transportation services to the Warriors Project, then the Warriors will be responsible to provide the additional transportation services to comply with EIR Mitigation Measures TR-2b and TR-18.
- Amend the proposed ordinance to specify that only tax revenues generated on-site by the Warriors Project are included in the Controller's estimates of General Fund revenue generated by the Warriors Project for the purpose of calculating the annual General Fund contribution to the Mission Bay Transportation Improvement Fund.
- Approve the proposed ordinance as amended.



## MANDATE STATEMENT

City Charter Section 2.105 states that all legislative acts shall be by ordinance and shall require two readings at separate meetings of the Board of Supervisors.

City Administrative Code Chapter 10, Article XVIII establishes the City's special funds. Administrative Code Section 10.100-1 defines the eight categories of special funds.

## BACKGROUND

The Golden State Warriors Arena, LLC (Warriors)<sup>1</sup> plans to construct a multipurpose event center and retail and office project at 16<sup>th</sup> and Third Streets in the Mission Bay neighborhood (Warriors Project). The Warriors Project will consist of 1,053,000 square feet of building space, as shown in Table 1 below, and 3.2 acres of open space.

**Table 1: Proposed Multipurpose Event Center, Retail and Office Project**

	<b>Square Feet</b>
Event Center with 18,064 seats	488,000
Office Space	513,000
Retail Space	52,000
<b>Total</b>	<b>1,053,000</b>

The Warriors purchased 11 acres previously owned by Salesforce.Com in October 2015 with a plan to complete the event center in time for the 2018-19 National Basketball Association (NBA) season. While the Warriors Project is a private development, the City will provide public transportation, including transportation infrastructure, and ongoing public services related to the development.

### **Mission Bay South Redevelopment Plan Area**

The Warriors Project is located on Blocks 29 to 32 in the Mission Bay South Redevelopment Plan Area (Mission Bay South) as shown in Figure 1 below.

<sup>1</sup> The Golden State Warriors Arena, LLC are an affiliate of the Golden State Warriors, LLC, who own the Golden State Warriors basketball team.



**Figure 1: Location of Warrior's Project In Mission Bay South**

### **Transportation and Other City Services to the Warriors Project**

The San Francisco Municipal Transportation Agency (SFMTA), San Francisco Police Department (SFPD), and Department of Public Works (DPW) will provide services to the neighborhood surrounding the Warriors Project.

#### *Transportation*

The Transportation Management Plan, required by the Project's Environmental Impact Report (EIR), includes the Muni Special Event Transit Service Plan, which commits SFMTA to provide additional service to the Warriors Project, including increased light rail service on the T-Third line, and special event shuttles. SFMTA would implement the following transportation infrastructure improvements and services to the Warriors Project:

- Purchasing four additional light rail vehicles
- Extending the existing boarding platform at 3<sup>rd</sup> and South Streets
- Running three special event shuttles to regional transit stations
- Expanding service levels on the T-Third light rail line, and



- Adding parking control officers to control traffic during arena events

#### *Police Services*

Depending on the size and type of events held in the Warriors' event center, the SFPD will incur additional costs by assigning from 8 to 14 police officers on overtime to patrol the neighborhoods surrounding the event center.

#### *Department of Public Works*

DPW will incur additional costs by providing an estimated 42 days of litter patrol, steam cleaning, and street sweeping on the streets adjacent to the Warriors Project.

#### **Development Impact Fees**

The Warriors will be required to pay two development impact fees contained in the Planning Code and applicable to Mission Bay South: the Child Care Fee and the Transportation Impact Development Fee.

#### **Environmental Impact Report**

On November 3, 2015, the Commission on Community Investment and Infrastructure certified the Final Subsequent Environmental Impact Report for the Golden Gate Warriors Event Center and Mixed Use Project under the California Environmental Quality Act (CEQA). The Commission adopted CEQA findings, including a Mitigation Monitoring and Reporting Program and a Statement of Overriding Considerations.

### **DETAILS OF PROPOSED LEGISLATION**

The proposed ordinance amends the Administrative Code to add a new Section 10.100-364 to establish the Mission Bay Transportation Improvement Fund to pay for additional services provided by SFMTA, SFPD, and DPW to the Warriors Project. The ordinance creates an advisory committee to make recommendations about the use of monies from the Fund, and adopts findings pursuant to CEQA.

#### **Mission Bay Transportation Improvement Fund**

The proposed ordinance establishes the Mission Bay Transportation Improvement Fund (Fund) as a category four fund, setting aside General Fund monies to pay for services provided by SFMTA, SFPD, and DPW to the Warriors Project.

#### *Uses of Funds*

The Fund will be used to pay for the following public services related to the Warriors' Project:

- Public transit
- Special event shuttles
- Parking and traffic engineering and control services
- Pedestrian and bicycle access programs
- Parking enforcement programs



- Local access to the University of California at San Francisco (UCSF) hospitals and facilities located in Mission Bay South
- Police services
- Litter pick-up
- Street and sidewalk clean up
- Other measures to improve services to the Warriors' Project

The Fund will be used to pay for the following SFMTA transit equipment and capital improvements related to the Warriors' Project:

- Light rail vehicles
- Cross over tracks and loading platform improvements on the T-Third line
- Parking and traffic improvements (such as cameras, traffic signals, vehicle messaging signs, and other improvements)
- Bicycle and pedestrian access
- Feasibility study for a ferry landing and service to Mission Bay South

#### *Sources of Funds*

The funding source for the proposed Mission Bay Transportation Improvement Fund is the General Fund. It is anticipated that the revenues to be realized from the Warriors Project will provide for the needed funding sources to the General Fund. The Controller will determine the General Fund tax revenue generated or likely to be generated by the Warriors Project each fiscal year to calculate the amount of the General Fund deposit to the Fund.

Maximum annual deposits to the Fund shall not exceed 90 percent of total General Fund revenue generated by the Warriors Project, as determined by the Controller. However, the ordinance sets minimum deposits to the Fund in the first five years, subject to the maximum 90 percent of total General Fund revenue generated by the Warriors Project, as follows:

- Year one: \$8,100,000
- Year two: \$8,300,000
- Year three: \$8,500,000
- Year four: \$8,800,000
- Year five: \$9,100,000

For the first five years, any end-of-year fund balance carries forward to the next year. After the first five fiscal years, end-of-year fund balances up to 25 percent of Fund expenditures carry forward to the next year.

The proposed ordinance establishes a reserve fund of \$1,000,000 once the event center opens. If City departments' expenditures exceed available revenues in the Mission Bay Transportation Improvement Fund, the City is entitled to a credit from the next year's annual deposit to the Mission Bay Transportation Improvement Fund, or from the reserve fund.



Beginning in FY 2016-17, SFMTA, SFPD, and DPW will prepare budget proposals to pay for City services and capital improvements related to the Warriors Project. According to the proposed ordinance, the Mayor and the Board of Supervisors shall include in the City's annual budget sufficient General Fund revenues for deposit into the Fund to meet City departments' budgeted expenditures to provide services to the Warriors Project.

#### *Category Four Fund*

The Mission Bay Transportation Improvement Fund, a category four fund, requires that all expenditures from the Fund be subject to appropriation approval by the Board of Supervisors.

#### **Mission Bay Transportation Improvement Fund Advisory Committee**

The Mission Bay Transportation Improvement Fund Advisory Committee (Advisory Committee) consists of five members, of which one each is appointed by the Warriors, the University of California at San Francisco, and the District 6 Supervisor, and two are appointed by the Mayor.

### **FISCAL IMPACT**

#### **One Time Capital Expenditures for Transportation Projects**

According to the Warriors Project Transportation Management Plan, the SFMTA will provide additional services to accommodate basketball games, concerts and other events at the proposed Warriors event center. SFMTA will increase the number of light rail vehicles on the T-Third line from the current one vehicle per train to the proposed two vehicles per train, resulting in the need to purchase four new light rail vehicles, and reduce the time between trains from 9 minutes to 8 minutes. The SFMTA will also make improvements to the tracks, boarding platforms, and power augmentation to the T-Third line.

SFMTA's estimated costs to purchase four new light rail vehicles and make other transportation system improvements to accommodate the Warriors Project are \$55.3 million. Estimated revenues generated by the Warriors Project to pay these costs are \$25.4 million, resulting in a revenue shortfall of \$29.9 million, as shown in Table 2 below.



**Table 2: Estimated Sources and Uses of Funds for  
Transit Improvements for Warriors Project<sup>2</sup>**

<b>Uses of Funds</b>	<b>Amount</b>
Four new light rail vehicles	\$18,300,287
Installation of three new cross over tracks	5,848,178
Construction of new center boarding platform	22,500,000
Power augmentation	<u>6,800,000</u>
Subtotal Transit Uses of Funds	\$53,448,465
Traffic signals and engineering	<u>1,860,000</u>
<b>Total Uses of Funds</b>	<b>\$55,308,465</b>
<b>Sources of Funds</b>	
Transit Development Impact Fees	\$17,436,000
Transfer tax and construction gross receipts and sales taxes	<u>7,955,799</u>
<b>Total Sources of Funds</b>	<b>\$25,391,799</b>
<b>Revenue shortfall</b>	<b>\$29,916,666</b>

Source: SFMTA

According to Ms. Sonali Bose, SFMTA Chief Financial Officer, the estimated revenue shortfall of \$29,916,666 will be financed through sale of SFMTA revenue bonds or other financing source. Annual debt service is projected to be paid from tax or other revenues generated by the Warriors Project, as shown in Table 3 below.

**City Departments' Ongoing Annual Expenditures for the Warriors Project**

SFMTA's expenditures for transit services to the Warriors Project will be paid by SFMTA fare and parking revenues generated by these services. The Mission Bay Transportation Improvement Fund will pay for SFMTA service to the Warriors Project not covered by these fare and parking revenues, and for SFPD and DPW services to the Warriors Project.

City departments' estimated annual expenditures to provide services to the Warriors Project are \$10.1 million. These expenditures will be funded by an estimated \$11.6 million in revenues generated by the Warriors Project, resulting in net revenues of \$1.5 million, as shown in Table 3 below.

<sup>2</sup> SFMTA will incur equipment and infrastructure costs related to the Warriors Project over a four to five year period. The revenue and expenditure estimates shown in Table 2 are the present value (in 2014 dollars) of the four to five year revenue and expenditures plan.



**Table 3: Estimated Sources and Uses of Funds for City Departments' Annual Ongoing Expenditures<sup>3</sup>**

<b>Estimated Annual Expenditures for City Services to Warriors Project</b>	
Transit services for events	3,780,746
Enforcement	2,892,838
Parking control officers	<u>238,443</u>
Subtotal, SFMTA operating costs	6,912,026
Estimated debt service on revenue bonds	2,122,661
Police	952,000
DPW	<u>95,357</u>
<b>Total Expenditures</b>	<b>10,082,044</b>
<b>Estimated Annual Revenues Generated by Warriors Project</b>	
SFMTA fare and parking revenue	1,772,894
Property taxes	1,779,882
Sales tax	520,948
Parking tax	482,197
Stadium admissions tax	4,335,920
Gross receipts tax	2,431,277
Utility user tax	<u>253,707</u>
<b>Total Revenues<sup>4</sup></b>	<b>11,576,825</b>
<b>Net Revenues</b>	<b>\$1,494,781</b>

Sources: SFMTA, SFPD, DPW; Economic & Planning Systems, Inc. report to OCII, Budget and Legislative Analyst estimate of debt service

## POLICY CONSIDERATION

**If the Warriors Project generates insufficient General Fund tax revenues to pay for all of SFMTA's costs to provide transportation services to the Warriors Project, the Warriors will need to directly provide some transportation services**

While SFMTA, SFPD, and DPW will provide services to the Warriors Project, only SFMTA is committed to additional services, as defined by the Muni Special Event Transit Service Plan,

<sup>3</sup> City departments will begin providing services to the Warriors Project beginning in the 2018-19 NBA season. These revenue and expenditure estimates are the present value (2015 dollars) of the 2018-19 revenues and expenditures.

<sup>4</sup> The Economic and Planning Systems, Inc. (EPS) September 2015 report to OCII estimates \$14,110,833 total revenues generated by the Warriors Project, of which \$2,597,737 are allocated to required funds and baselines, such as the Children's Fund and Open Fund, and \$11,513,096 are general revenues. Table 3 revenues of \$11,576,825 differ from the EPS estimates of \$11,513,096 in that Table 3 (1) includes \$1,772,894 in SFMTA fare and parking revenues, and (2) does not include \$1,709,165 in hotel tax and gross receipts tax revenues generated off-site.



which is a component of the Transportation Management Plan.<sup>5</sup> The Warriors are required to implement a Transportation Management Plan to manage vehicle, transit, pedestrian, and bicycle transportation during Warriors games and other events and activities at the project site, in accordance with the Project's Environmental Impact Report (EIR). According to the EIR, the Warriors will have to implement additional transportation services if the Muni Special Event Transit Service Plan is not implemented.<sup>6</sup> While the EIR does not explicitly state that insufficient General Fund tax revenue generated by the Warriors Project would cause the Muni Special Event Transit Service Plan to not be implemented, according to City staff, insufficient funding could be one of the causes of not implementing the Transit Service Plan.

According to the October 20, 2015 memorandum from the Director of Transportation to the OCII Executive Director, although SFMTA will be able to deliver transit services to the Warriors Project, SFMTA cannot unequivocally guarantee future funding for the transit services to the Warriors Project in perpetuity. According to the Director of Transportation, the SFMTA supports the Project with the understanding that the City, the Golden State Warriors and SFMTA do not expect the SFMTA operating and capital budgets to experience any adverse impact associated with implementing the proposed transit service plan and the capital investments to support it.

Under the proposed ordinance, the General Fund contribution to the Mission Bay Transportation Improvement Fund is capped at 90 percent of General Fund tax revenues generated by the Warriors Project. The proposed ordinance should be amended to specify that if the revenue cap is insufficient to cover SFMTA's expenditures for transportation services to the Warriors Project, then the Warriors will be responsible to provide additional transportation services to comply with EIR Mitigation Measures TR-2b and TR-18.

**Only General Fund tax revenues directly generated by the Warriors Project should be included in the Controller's estimates**

OCII's consultant, Economic and Planning Systems, Inc. (EPS) attributed to the Warriors Project hotel and gross receipts tax revenues generated off-site. According to the EPS report, hotel taxes will be generated by out of town visitors attending events at the Warriors Project, and gross receipts taxes will be generated by off-site businesses serving visitors to the Warriors Project. According to the peer review report by Keyser Marston Associates, the EPS analysis is reasonable because (a) only demand generated by the event center and not the retail and office uses is included in the analysis, and (b) the estimates are based on conservative assumptions.

However, the Budget and Legislative Analyst notes that off-site hotel tax and gross receipts tax revenues cannot be directly attributed to the Warriors Project. It is not possible to verify if changes in hotel occupancy and off-site business gross receipts tax revenues are

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<sup>5</sup> SFMTA's expenditures for the transportation infrastructure improvements are funded by the TIDF, real property transfer taxes, and financing (such as revenue bonds). The annual debt service on the financing is included in the annual budget to be funded by the Fund.

<sup>6</sup> Additional transportation services include shuttle buses, charter buses, high occupancy vehicles, and special ferry service.



due solely to visitors who come to San Francisco specifically to attend Warriors games or other events at the proposed event center. Such increased tax revenues might also be attributable to visitors to San Francisco who do not attend events at the Warriors Project. Any methodology to attribute hotel and gross receipts tax revenues to the Warriors Project is based on assumptions and not actual accounting of tax receipts. Therefore, the Budget and Legislative Analyst does not include these off-site tax revenues, estimated to be \$1,709,165 per year, in the Table 3 estimates above.

The Budget and Legislative Analyst recommends amending the proposed ordinance to specify that only tax revenues generated on-site by the Warriors Project are included in the Controller's estimates of General Fund revenue generated by the Warriors Project for the purpose of calculating the annual General Fund contribution to the Mission Bay Transportation Improvement Fund.

## RECOMMENDATIONS

1. Amend the proposed ordinance to specify that if the annual cap of 90 percent of General Fund revenues from the Project site and events at the Event Center is insufficient to cover SFMTA's expenditures for transportation services to the Warriors Project, then the Warriors will be responsible to provide the additional transportation services to comply with EIR Mitigation Measures TR-2b and TR-18.
2. Amend the proposed ordinance to specify that only tax revenues generated on-site by the Warriors Project are included in the Controller's estimates of General Fund revenue generated by the Warriors Project for the purpose of calculating the annual General Fund contribution to the Mission Bay Transportation Improvement Fund.
3. Approve the proposed ordinance as amended.



# EXHIBIT 11





November 17, 2015

Mr. Tom Lippe  
Law Offices of Thomas N. Lippe, APC  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Subsequent Environmental Impact Report for Event Center and  
Mixed Use Development at Mission Bay Blocks 29-32.  
SCN:2014112045**

P15003

Dear Mr. Lippe:

This is an addendum to my November 2, 2015 comments of the Responses to Comment ("the RTC") on the Subsequent Environmental Impact Report (hereinafter "the SEIR") on the above referenced Project in the City and County of San Francisco (hereinafter "the City"). This addendum focuses on an addition to the Project that is different from a feature addressed in the DSEIR. This concerns the proposed modification to the Muni UCSF T Third Station

My qualifications to perform this review were thoroughly documented in my letter of comment on the DSEIR dated July 26, 2015 and are incorporated herein by reference.

### **Original MUNI UCSF/Mission Bay T Third Station – Impact Analysis Flawed**

An original component of the Project was to extend the existing 160 foot northbound and southbound platforms of MUNI's UCSF/Mission Bay T Third LRT station to 320 feet so that the station could accommodate to two-car LRT trains stopping at either directional platform at the same time. The DSEIR found that passenger usage of the MUNI's UCSF/Mission Bay T Third LRT station during pre-event and post-event periods of large events at the Project's "event center" would not exceed thresholds of significance related to the capacity of the station's platforms. This finding is implausible since the platforms are only 9 feet



wide and accessed/egressed by ramps only 4 feet wide. The DSEIR's claim that thresholds of significant impact on these platforms will not be exceeded was arrived at only through evasive assumptions inconsistent with the good faith effort to disclose impact that CEQA demands. These evasions include:

- assuming that, in the pre-event period, if the platform were already crowded, that a subsequently arriving LRT train would not open its doors, thereby trapping riders aboard until the crowd on the platform dissipated, and
- assuming that PTOs would corral departing event patrons in a separate area whenever it appeared that the boarding platforms were becoming overcrowded.

Both of these assumed actions are actually de-facto admissions that there actually would be significant transit impacts related to station platform capacity (we also note that the excessive station dwell times when operators stop but keep the doors closed to keep debarking passengers from overloading station platform capacity is both a significant transit impact and social justice impact on those who rely on the T Third to travel farther south). Instead of disclosing that there is a significant transit impact and proposing effective mitigation, in this instance the DSEIR claims there is no significant impact and defined what appears as a gratuitous improvement, Improvement Measure I-TR-4 to "study" operations and safety at the LRT platforms and determine the need for and feasibility of operational improvements at the platforms, with the study to be performed by a qualified transportation professional approved by SFMTA<sup>1</sup>.

The problems with the proposal assumed as part of the Project to extend the existing northbound and southbound platforms are obvious.

- The existing platforms are only 9 feet wide and accessed by ramps that are only 4 feet wide, insufficient widths for event crowds to access or egress the platforms quickly.
- While lengthening the platforms creates the space for a second train to stop, it doesn't add any width to allow the crush crowds to move off the platform efficiently.
- Moreover, in the post-event period, the west (southbound) platform would only service the relatively small numbers of patrons headed south on the T Third. It is fairly useless as a staging point for loading turnback shuttles headed north.

### **The MUNI UCSF/Mission Bay T Third Station Variant**

Between the intervening time between when the DSEIR was circulated and the time the SEIR was prepared, transportation professionals specialized in LRT operations and design were apparently able to get involved instead of just the

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<sup>1</sup> Such a study appears to be a deferred mitigation that is improper under CEQA.



professionals who prepare environmental documents. The result is what the SEIR describes as the "Muni UCSF/Mission Bay Station Platform Variant".

The Muni UCSF/Mission Bay Station Platform Variant replaces the split northbound and southbound side platforms with a single center-platform and located in the block between South and Sixteenth Streets. The new center-platform concept is clearly operationally superior to the flawed original proposal to simply extend the existing side platforms and add crossovers for shuttle turn-backs.

- It will have a 17-foot width accessed and egressed by 13-foot wide ramps at both ends of the platform, obviously better suited to dealing with heavy event crowds than the existing side-platform configuration (even if the lengths were doubled as proposed in the DSEIR) that have only 9-foot widths and 4-foot access/egress ramps at one end only.
- Both sides of the proposed center-platform can be readily used by turn-back shuttles, providing much greater operational flexibility for integrating the turn-backs with normal operational flows.

This "variant" is so far superior in ultimate performance to the flawed original proposal for modifying the LRT station that it is now clearly a component of the Project, not just a potential alternative.

### **Substitution of the New MUNI UCSF/Mission Bay T Third Station Plan Requires Recirculation of the SEIR in Draft Status**

The SEIR claims in Volume 4, page 12-23 that the Muni UCSF/Mission Bay Station Platform Variant is analyzed at an equal level of detail as the station platform improvement proposal included in the Project Description for the proposed Project and therefore the variant analysis satisfies all CEQA requirements. However, this interpretation ignores the fact that the variant involves very different and more impactful consequences during construction than the original station platform proposal.

In the original proposal, the basic trackwork would remain the same, the crossovers could be installed over a 3-day weekend period and extension of the platforms could be undertaken largely without interference to services to the existing portion of the platforms or to operations further south along the T Third. In the variant, the entire trackwork between South and Sixteenth Streets would have to be torn up to allow center platform construction, the existing side platforms demolished, and either shoofly trackage around the entire construction site would have to be constructed (likely involving full-time traffic lane closures) or bus services substituted for T Third operations south of China Basin and Mission Rock Streets. This disruptive construction would take place over a 14 month period. The SEIR mentions these significant differences in disruption of



Mr. Tom Lippe  
November 17, 2015  
Page 4

services and transportation operations but implausibly claims they are the same as for the originally proposed Project. Clearly this is not the case.

Under CEQA, if the project changes after publication of the Draft EIR, and these changes create a new significant impact not identified in the Draft EIR, or a substantial increase in severity of a significant impact that was identified in the Draft EIR, the lead agency must recirculate the draft EIR for public comment. (CEQA section 21092.1.). Although the SEIR makes the conclusory statement that the station variant would not result in new or more severe impacts than previously disclosed, the impacts disclosed in the SEIR are new, more severe and clearly support an opposite conclusion. Hence, the SEIR should have been recirculated in draft for a further 45 day public comment period.

Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.  
President





## EXHIBIT 12





November 28, 2015

Mr. Tom Lippe  
Law Offices of Thomas N. Lippe, APC  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Subsequent Environmental Impact Report for Event Center and  
Mixed Use Development at Mission Bay Blocks 29-32.  
SCN:2014112045**

P15003

Dear Mr. Lippe:

This is an addendum to my November 2, 2015 comments of the Responses to Comment ("the RTC") on the Subsequent Environmental Impact Report (hereinafter "the SEIR") on the above referenced Project in the City and County of San Francisco (hereinafter "the City"). This addendum focuses on topics concerning walking distance to the proposed Project, exclusion from the analysis of key intersections that are clearly potentially impacted by the project and that are on identified emergency routes to the UCSF Mission Bay hospitals, severity of impact, a key scenario not analyzed in the SEIR and considerations regarding the effect of the at-grade rail crossing of Sixteenth Street on intersections in the Sixteenth Street corridor.

My qualifications to perform this review were thoroughly documented in my letter of comment on the DSEIR dated July 26, 2015 and are incorporated herein by reference.

### **Re Walking Distance**

The walking distance issue of concern relates to the SEIR Response to Comment located at p p13.11-27, 28. This part of the response expresses the notion that people who work downtown would walk to the Warriors Arena because people who work downtown tend to walk to AT&T Park. This response



is illogical and unreasonable because a) the Warriors Arena is much farther from downtown than AT&T Park and b) because there are limits on how far, in terms of time or distance, the vast majority of able-bodied people are willing to walk on purposeful trips. AT&T Park is within 25 minutes walk distance from the Bank of America Building at California and Montgomery Streets. The Arena site is about 41 minutes walk distance from that downtown location. The Transamerica building located at Washington and Montgomery is about a 29 minute walk from AT&T Park. It is about a 44 minute walk from the Arena site. A compendium of urban planning literature, attached as Exhibit A, mostly related to access to transit, suggests that most people are unwilling to walk more than 30 minutes on purposeful trips. Hence, while AT&T Park is within reasonable walking distance for many working downtown, the Arena site is not.

### **Re Key Intersections On Emergency Routes Omitted From the Analysis**

My letter of November 3, 2015 on page 7 stated: "Many of the intersections and ramps on logical access/egress routes to/from the Project that, at the City's discretion, the SEIR failed to analyze are on the advised emergency access routes from various points in the City and region to the hospitals and are posted on the UCSF web site," I used UCSF's web site interface for directions to the Medical Center to identify recommended emergency routes. (See [www.ucsfmissionbayhospitals.org/gethere/](http://www.ucsfmissionbayhospitals.org/gethere/) and click on "Get Directions" tab.) For Hyde and Bay, the primary recommended route is the Embarcadero to King, then Third. The secondary route is Hyde, then 8th. For the Transamerica building, the primary route is Clay/Drumm/Washington to Embarcadero, King, Third. The secondary route is Davis/Beale/Bryant/Embarcadero/Third. For Union Square, the primary is west on Geary, down Hyde/8th/Brannan/7th/16th. For the Bay Bridge, the primary is off at 8th and Harrison, down 8th/Brannan/7th/16th. . These documented emergency routes demonstrate why the intersections along Eighth and along the Embarcadero should have been studied. The key intersections are the nine along the Embarcadero with Broadway, Washington, Market, Mission, Howard, Folsom, Harrison, Bryant and Brannan and the six on Eighth with Market, Mission, Howard, Folsom, and especially Harrison and Bryant.

### **Severity of Impact Issues in the Sixteenth Street Corridor**

In prior communications we have discussed the SEIR's failure to distinguish differences in the severity of impacts when intersections are within the LOS F range. That is to say, the SEIR merely reports conditions as LOS F as if all were equivalent when in fact one scenario may involve traffic demands producing delays two, three or four seconds over the LOS F delay threshold of 80 seconds while another involves vastly greater traffic demand producing predicted delays



perhaps 50 percent or 100 percent above the LOS F 80 second delay threshold<sup>1</sup>. This situation is particularly marked in the case of the intersection of Sixteenth, Seventh and Mississippi Streets. In this case, Table 5.2-47 reports the scenario of Existing + Giants Game + No GSW Project and the scenario of Existing + Giants Game + GSW Project + Basketball Game as equivalent LOS F conditions. However, buried in the details of Synchro LOS/delay computation sheets contained in Appendix TR for the pm peak hour it is found at page TR-191 that the Existing + Giants Game + No GSW Project is computed to have a delay level of 84.7 seconds per vehicle (slightly less than 6 percent over the 80 second LOS F threshold) while on page TR-323 the Existing + Giants Game + GSW Project + Basketball Game scenario traffic is found to cause a delay of 151.9 seconds per vehicle (almost 90 percent over the 80 second LOS F threshold). While differences in predicted delay above the LOS F threshold are not as precisely reliable as those below the LOS F threshold, vast differences such as the above are clearly indicative of significant differences in severity of impact. And at an intersection such as that of Sixteenth, Seventh and Mississippi Streets which is on a key emergency and normal access route to the UCSF Mission Bay hospitals, the failure to report change in severity of impact is a critical flaw in the SEIR. Similar results are reported for the Early Evening hour.

### **SEIR Fails to Consider a Critical Scenario**

Considering the details of severity of impacts at the key intersection of Sixteenth, Seventh and Mississippi Streets reveals another flaw. In the Existing + Giants Game scenario, as noted above the subject intersection functions just above the LOS F threshold (delay 84.7 seconds per TR-191). The SEIR and Appendix TR do not consider the scenario of Existing + Giants Game + Project + No Event. However, comparison of the Existing + No Giants scenario (delay 68.6 seconds/LOS E per TR-179) to the Existing + No Giants + Project + No Event scenario (delay 87.8 seconds/LOS F per TR-275) reveals a differential of 19.2 seconds delay increment caused by the Project without an arena event. Hence, by extrapolation, the Existing + Giants + Project + No Event scenario would cause an overall delay at Sixteenth, Seventh and Mississippi Streets in the pm peak hour of 103.9 seconds or worse. This is almost 30 percent above the LOS F threshold. So adding the Project, even without a Project arena event, would cause a substantial increase in severity of pm peak impact at Sixteenth, Seventh and Mississippi Streets whenever there is a Giants game.

How often would this more severe but unanalyzed condition affecting the key emergency access intersection to the UCSF Mission Bay hospitals occur? The maximum number of Giants games that could be played on weeknights between April 1 and October 30 reflecting current schedule patterns and assuming the

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<sup>1</sup> The formal definition of 80 seconds average control delay per vehicle is implied in these statements.



team reaches the World Series and that all playoff series go the maximum number of games is about 57 games. Based on the event expectations for the Project's arena disclosed on Appendix TR, page TR-19, there could probably be about 60 weekday events at the Project over those same 7 months when the Giants could be playing. There are about 156 weekdays in that 7 month period. So if there are no overlaps, the unstudied, increased severity condition could occur up to 57 times. However, when overlaps do occur, the almost doubled severity condition that was studied would occur.

### **Effect of At-Grade Rail Crossing of Sixteenth Street**

We have carefully re-examined the SEIR response to comment on the effect of the SEIR response to our comment on the effect of the Caltrain grade crossing of 16<sup>th</sup> on the operation of the intersection of Seventh/Mississippi/16<sup>th</sup>. The SEIR response on this issue from SEIR Volume 4, pages 13.11-55 and 13.11-56 is reproduced indented and in distinctive font, with our further observations in normal font and margins.

The SEIR analysis did not explicitly include the delay associated with the at-grade crossing of Caltrain at the study intersections of Seventh/Mississippi/16th and Seventh/Mission Bay Drive, but the delay and LOS presented in the summary tables does reflect traffic conditions, including automatic gate operations.

How the delay and LOS does reflect gate closure during rail preemption is not made evident in the subsequent discussion in any way. The only thing clear is that "the SEIR analysis did not explicitly include the delay associated with the at-grade crossing of Caltrain".

As noted on SEIR page 5.2?6, the analysis of existing conditions assumes implementation of the 22 Fillmore Transit Priority Project, which includes converting one of the two mixed-flow travel lane in each direction on 16th Street to a side-running transit-only lane.

Changing the number of general traffic lanes which pass through the subject intersection and the at-grade rail crossing is a confounding assumption which makes any comparison to observed conditions irrelevant.

Prior to incorporating the 22 Fillmore Transit Priority Project into the intersection LOS analysis, the LOS conditions were verified based on field surveys of intersection operations conducted as part of this project and the UCSF Long Range Development Plan (LRDP) analysis. The results were also compared to the LOS analysis for existing conditions presented in the EIR prepared for the Caltrain electrification project<sup>9</sup>. The LOS results obtained for



these two study intersections for the weekday p.m. peak hour were found to be generally consistent with field observations and the analyses presented at the two aforementioned reports.

This is disguised and misleading self-referencing, not validation relative to independently performed studies. Fehr & Peers, the consultants that did the Synchro delay/LOS calculations for the SEIR also did the work on both the Caltrain study and the UCSF LRDP study. It is entirely unclear what “generally consistent” means since the only “existing condition” analyzed in the DSEIR at the subject location assumes the general traffic lane reductions associated with the 22 Fillmore project to be in place, those in the other cited studies actually only analyzed the intersection under the actual existing configuration with Sixteenth having 2 through lanes in each direction.

The Caltrain EIR had the 2013 “existing condition” in the PM peak hour at 45.9 seconds/LOS D (with or without Giants game not specified) but without taking two through lanes off 16<sup>th</sup> to create the bus priority lanes. This is dramatically better than the 68.6 seconds delay the SEIR projects for the Existing No Giants scenario assuming the 22 Fillmore bus lanes in place. The Caltrain future forecasts are confusing. They show a delay of 67.7 seconds for year 2020 with no electrification project but a slightly lesser 4.5 seconds delay with the electrification project – this despite the admission that the electrification project would increase the crossing gate down time at 16<sup>th</sup> from 8 minutes/6 seconds to 11 minutes/38 seconds, an increase of 3 minutes/32 seconds. Hence, the future forecast findings of the Caltrain study at this location are completely illogical and no basis for justification of what was done in the SEIR.

The UCSF LRDP EIR reports the pm peak at the subject intersection at 44 seconds delay in 2014 – fairly comparable to the existing condition compiled in the Caltrain study – and a future condition upon completion of the LRDP of 46 seconds delay. But both of these values relate to the existing condition of 16<sup>th</sup> Street – without the bus priority lanes taking away 2 of the 4 general traffic lanes that exist on the street.

The SEIR never presented an Existing No Fillmore Priority Lanes computation. So the words in the response “generally consistent with field observations and the analyses presented at the two aforementioned reports” are unsupported because “field observations” cannot validate a future change in field conditions (i.e., dedicating one lane each direction to bus priority) that does not yet exist, and the previous studies did not consider this future change.

At the intersection of Seventh/Mississippi/16th, the SEIR and both analysis efforts identified LOS D for weekday p.m. peak hour conditions for conditions without a SF Giants evening game.



This is incorrect and misleading. Both the Caltrain Electrification and the UCSF LRDP EIRs identified the Existing Condition without a weekday evening Giants game as LOS D with delays of 45.9 and 44 seconds respectively. However, the SEIR identifies the Existing without Giants game as LOS E, not D, with a delay of 68.6 seconds (see Appendix TR-179). This significant difference, apparently mostly attributable to the change on 16<sup>th</sup> to provide the 22 Fillmore priority lanes, provides no basis for concluding things are “generally consistent” or adequately reflect the interruptions in traffic due to rail crossings.

The response continues, finding every other pm peak scenario and the ‘early evening’ scenarios involving a basketball game at LOS F, without differentiating among severity. This is an important flaw for two reasons. First, while most scenarios are just a few seconds over the 80 second LOS F threshold, three scenarios - the pm peak with the project and overlapping basketball and Giants games superimposed on existing traffic, and the early evening hour with the project and a basketball game superimposed on existing traffic with or without a Giants game – all have delay levels from almost double to more than double the 80 second LOS F threshold. This means the critical intersection of Seventh/Mississippi/16<sup>th</sup> will be vastly more severely gridlocked at those times and scenarios than the others. Second, because the intersection will be at LOS F in most pm and early evening scenarios, queues that build when trains interrupt traffic operations will not be able to dissipate and will continue to build.

The response concludes as follows:

As a reference, the Peninsula Corridor Electrification Project Final EIR included an analysis of the impacts associated with Caltrain electrification, including the additional delay associated with the extra trains that would be implemented as part of that project. At the intersection of Seventh/Mississippi/16th, the average aggregate gate down time during the weekday p.m. peak hour, which is currently about 8 minutes 6 seconds, is projected to increase to 11 minutes 38 seconds. These represent an additional average delay of approximately five seconds per vehicle per traffic signal cycle (212 additional seconds of delay divided by 45 cycles per hour). Project vehicles would also be subject to the increased delay.

Although the information regarding gate down time is factually correct, the assumption that the down time can be cut up and spread in average amounts over all signal cycles in an hour is a misrepresentation of the situation. When the gates come down, they stay down for about 45 seconds, directly impacting one or possibly two signal cycles. During that down time large queues build. If the intersection is at or close to LOS F, it does not have the capability of dissipating those queues that build while the gates are down. Further compounding the situation is the fact that the train preemptions – when the gates are down – do not occur at even intervals.




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Some crossings are closely bunched. This is a set of circumstances that can only be analyzed by a scientific simulation using a program such as VISSIM which is why we make that recommendation. Any computation through an averaging technique to approximate the effect of the rail grade crossing preemption unreasonably understates and minimizes the disclosure of impact in this particular situation.

Thank you for the opportunity to make these additional comments.

Sincerely,

Smith Engineering & Management  
A California Corporation



Daniel T. Smith Jr., P.E.  
President





### **Qualitative Studies/Statements:**

Calthorpe Associates: Project Sheets-TOD Guidelines

<http://www.calthorpe.com/Project%20Sheets/TOD%20Guidelines.pdf>

Briefly defines TODs as mixed-use districts within a comfortable walking distance of transit – about 2,000 feet

Dittmar, H., and G. Ohland, eds. *The New Transit Town: Best Practices in Transit-Oriented Development*. 2004. Island Press. Washington, D.C. p. 120.

“Locate development close to transit. Effective TOD places residential and office space as close to transit as possible. The optimal walking distance between a transit station or stop and a place of employment is 500 to 1,000 feet. Residents are willing to walk slightly longer distances to get to transit, between a quarter- and a half-mile.”

Envisioning Neighborhoods with Transit-Oriented Development Potential

<http://transweb.sjsu.edu/publications/envisioning/Envisioning.htm>

Defines walking distance (<1/2 mile), bicycling distance (<2 miles), and five-mile driving or transit distance. These ranges of analysis include the areas where residents of possible TODs might work, shop, or prefer to go for services. Case studies are from bay Area of San Francisco (Campbell light rail, Fruitvale BART in Oakland, Hayward BART, Mountain View CalTrain/light rail, Redwood City CalTrain, and the Sacramento 65th Street Station). Study uses these distances as a starting point, not as a point of research.

### **TOD Manuals from Other Jurisdictions/Transit Agencies**

<b>Jurisdiction</b>	<b>Walking Distance Referenced</b>
Mass Transit Administration (Maryland)	1500 ft. (0.28 mi.)
Mid-America Regional Council (Kansas City, Missouri)	1500 ft. (0.28 mi.)
NJTransit (New Jersey)	¼ - ½ mi
Ontario Ministry of Transportation	400m (0.25 mi.)
Regional Plan Association (NY, CT, NJ Tri-metro area)	¼ mi.
Snohomish County Trans. Authority (Snohomish Cty, Washington)	1000 ft. (0.19 mi.)

## **EXHIBIT A**



Mass Transit Administration (1988) *Access by Design: Transit's Role in Land Development*. Maryland Department of Transportation.

Recommended spacing for bus stops is calculated based on a catchment area of 1500 feet (0.28 mi.) from each side of the road traveled, defined as the area from which most passengers can easily walk to access transit service. Passengers within this distance are considered to be “adequately served.” Closer spacing is recommended for higher density areas (section 5.1.2).

Mid-America Regional Council (No Date) *Transit-Supportive Development Guidebook*. (Kansas City, Missouri). <http://www.marc.org/transportation/TSD%20Guidebook.pdf>

Indicates most people are willing to walk 1500 feet (0.28 mi.) to shopping or transit (Chapter 4, Pedestrian Scale Blocks, p. 48), and suggests that short, walkable blocks increase the attractiveness of pedestrian transit.

NJTransit (1994) *Planning for Transit-Friendly Land Use A Handbook for New Jersey Communities*.

Defines reasonable walking distance by general understanding of willingness to walk 5-15 minutes to get to or from a transit stop, corresponding to ¼ to ½ mile, but varies based on topography, sense of safety and security, presence of interesting activity (Section 1.3).

Ontario Ministry of Transportation (1992) *Transit-Supportive Land Use Planning Guidelines*. Ontario Ministry of Municipal Affairs.  
[http://www.mah.gov.on.ca/userfiles/page\\_attachments/business/transuppguid/transuppguid-e.pdf](http://www.mah.gov.on.ca/userfiles/page_attachments/business/transuppguid/transuppguid-e.pdf)

Transit-oriented design guidelines developed by the Ontario Ministry of Transportation reference 400m (1/4 mile) walking distance throughout this document as a basis for recommendations.

Regional Plan Association (1997) *Building Transit-Friendly Communities A Design and Development Strategy for the Tri-State Metropolitan Region*. (New York, New Jersey, Connecticut).

Defines transit-friendly communities as intensively developed areas within ¼ - ½ mile of rail stations. A distance that can be comfortably walked in 5-10 minutes and a distance most people are willing to walk to train stations or other community uses. These areas include mixed uses, pedestrian connections, and traffic calming design. Cites a study showing that residents living within ¼ mi. of



rail stations are five-to-seven times more likely to use rail than other area residents (Relationship Between Transit and Urban Form Handbook, Transit Cooperative Research Program TCRP H-1, November 1995, page 29.)

Snohomish County Transportation Authority (1989) *A Guide to Land Use and Public Transportation for Snohomish County, Washington*. (Snohomish County, Washington). <http://ntl.bts.gov/DOCS/GL.html>

“People can be expected to walk no more than 1,000 feet to a bus stop or a park-and-ride parking space. The walking distance increases slightly, to 1,320-1,758 feet (1/4 to 1/3 of a mile), for rail station access.” (Chapter 3).



### **Quantitative Studies:**

Ewing, R. (1999) *Best Development Practices: A Primer*. EPA Smart Growth Network, pp. 1-29. <http://www.epa.gov/dced/pdf/BestDevprimer.pdf>

See p. 8. Suggest destinations to which we expect people to walk should be no further than ¼ mile distance. (References data from: Tabulations from the 1990 Nationwide Personal Transportation Survey (NPTS).)

Ewing, R. (2000) *Pedestrian- and Transit-Friendly Design: A Primer for Smart Growth*. EPA Smart Growth Network, pp. 1-22. [http://www.epa.gov/dced/pdf/ptfd\\_primer.pdf](http://www.epa.gov/dced/pdf/ptfd_primer.pdf)

Also cites the same 1990 NPTS Study (see page 5). These documents both present brief summary of quantitative analysis not discussed in these publications. References: P.N. Seneviratne, "Acceptable Walking Distances in Central Areas," *Journal of Transportation Engineering*, Vol. 3, 1985, pp. 365-376 (Abstract can be found at: <http://www.pubs.asce.org/WWWdisplay.cgi?8501920> . For registered subscribers of *The Journal of Transportation Engineering*, full text is available at: <http://scitation.aip.org/getabs/servlet/GetabsServlet?prog=normal&id=JTPEDI000129000006000684000001&idtype=cvips&gifs=yes> ) From footnote: "Travel distances were estimated assuming everyone walked at the National Personal Transportation Survey average speed of 3.16 mph. Curves were smoothed to account for people's tendency to round off travel times."

Bureau of Transportation Statistics:

[http://www.bts.gov/programs/national\\_household\\_travel\\_survey/](http://www.bts.gov/programs/national_household_travel_survey/)

National Household Travel Survey: <http://nhts.ornl.gov/2001/index.shtml>

TCRP Report 102: "Transit-Oriented Development in the United States: Experiences, Challenges and Prospects" Transportation Research Board, 2004.  
[http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rpt\\_102.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_102.pdf)

Cites 1987 WMATA study by JHK and Associates (Development-Related Survey I)

\*See attached Table 8.1 "Modal Splits for Residential Projects Near Metrorail Stations, Washington (D.C.) Metropolitan Area, 1987.

Relationship Between Transit and Urban Form Handbook, Transit Cooperative Research Program TCRP H-1, November 1995, page 29

Digest version: [http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rrd\\_07.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rrd_07.pdf)

Study of ridership among housing and commercial developments near 4 rail stations in Canada found a "walking impact zone" as far as 4,000 feet (3/4 mile) from a station, a "distance that can accommodate around 1,200 acres of development, sufficient to create strong transit-oriented communities."



Study by JHK and Associates in 1986, 1989 showed that the “share of trips by rail or bus transit declined by around .65 percent for every 100-foot increase in distance of a residential site from a Metrorail station portal.”

Cervero et. al 1993—In the Bay Area, 92 percent of those living within ¼ mile of a BART station and commuting to San Francisco where parking costs were over \$2 per day commute via rail transit.

Paget, Donnelly, Price, Williams and Associates. Rail Transit Impact Studies: Atlanta, Washington, San Diego. March 1982. p. 28. (used in Fairfax County Metro Station Areas Study, 1982)

In the Washington metropolitan area, it was found that the average walk to/from a Metrorail station ranged between ¼ to 1/3 mile.

Walking time/distance ratios appear to coincide with actual land use development in the stations vicinity—station area development had occurred primarily within ¼ mile of the station.

BART's First Five Years; Transportation and Travel Impacts (April 1979) DOT-P-30-79-8. (used in Fairfax County Metro Station Areas Study, 1982)

(This study surveyed mode of access which was then converted to distance)

In the San Francisco Bay Area Rapid Transit System (BART), 80% of the pedestrians using BART during peak hour periods walked less than 10 minutes to the station, while somewhat over half of those pedestrians walking under 6 minutes to reach their destination. The distance for a 6 minute walk was estimated to be a quarter of a mile.

1976 survey data included in Appendix:

- 30% of trips walked to BART station
- Of that 30% who walked, **80% walked less than 10 minutes** (45% walked under 6 minutes (approximately 1350 feet) and 35% walked between 6-10 minutes, approximately 1350 to 2250 feet)
- **Distance for a 6 minute walk was estimated to be about ¼ mile**
- Overall average walking time for all who walked to the BART stations was 8.8 minutes
- Generally considered that the average person walks about 225 feet per minute
- Overall average length of walk was probably about 1,980 feet (.375 miles)
- Average walking time for walkers to their destination at end of trip was 7.2 minutes or about 1,600 feet (1/3 mile)



Gladstone Associates. Northern Virginia Metro Station Impact Study: Development Potentials at Metro Stations. June 1974, p. 23. (used in Fairfax County Metro Station Areas Study, 1982)

Gladstone study identified a primary area of development potential within 1000 feet (.19 miles) of a Metrorail entrance and a secondary area within one half mile of the station site. Planned station areas in Alexandria and Arlington County generally reflect this concept.

Alexandria's King Street Station study area is within a 5 minute walk (approx. 1300 feet, .25 miles) of the station with the remaining area within a 10 minute, one half mile walk.

Arlington's Ballston and Courthouse planning areas encompass acreage generally within .4 and .3 miles, respectively, of the station.)

Montgomery County's Takoma Park station had a primary transit impact area within 1000 foot radius of the station with the secondary area of impact encompassing acreage within a half mile radius. The transit impact area for the Forest Glen, Glenmont and White Flint stations was identified as acreage within a 2000 foot radius from the station.

Note that natural or man-made barriers such as floodplains, railroads and highways affected that actual area studied (for example King Street's adjacent railroad right-of-way formed the western boundary to the study area even though a portion of the acreage on the opposite side was within ¼ mile of the station.



Gruen, Victor, The Heart of Our Cities. The Urban Crisis: Diagnosis and Cure. Simon and Schuster 1964, New York, p. 250: (used in Fairfax County Metro Station Areas Study, 1982)

Chart to illustrate people's tolerance for walking:

	Minutes	Feet
In a highly attractive, completely weather-protected and artificially climatized environment	20	5,000
In a highly attractive environment in which sidewalks are protected from sunshine and rain	10	2,500
In an attractive but not weather-protected area during periods of inclement weather	5	1,250
In an unattractive environment (parking lot, garage, traffic-congested streets)	2	600

Ritter, Paul, Planning for Man and Motor, Pergamon Press, New York, 1964, p. 14 (used in Fairfax County Metro Station Areas Study, 1982)

“An average walk is at a speed of 2.5 miles per hour. This converts to 13,200 feet per hour or 220 feet per minute. On this basis, a 5-minute walk would be 1,100 feet and a 10-minute walk would be 2,200 feet.”

Pushkarev and Zupan. Public Transportation and Land Use Policy. Indiana University Press from a study by Regional Plan Association of New York (RPA). (used in Fairfax County Metro Station Areas Study, 1982)

- “In Montreal, in order to maximize pedestrian access to stations, the stations were planned 0.6 miles apart assuming maximum reasonable walking distance of .3 miles.
- Tri-State Regional Planning Commission's 1963 Home Interview Survey indicates that, outside downtown areas, people reported their walk to a bus to be, on the average, in the 3-4 minute range, their walk to a subway or rail station to be in the 5-10 minute range, and their drive to rail stops to average 7-15 minutes.
- The pedestrian access trip to stations responds to station spacing only in a very limited manner. The median walk to subway stations does increase



from 0.17 miles in midtown Manhattan, where stations are very closely spaced, to about 0.32 miles at the edge of the subway-served territory.

- **It appears that no matter how station-spacing increases, 50 percent of the people will not walk more than 6 minutes or 0.3 miles to a non-downtown rail station, even if there is a fraction of 1 percent who will walk over 30 minutes or more than 1.5 miles.** This is not inconsistent with the finding that a distance of 2,500 feet or a 9-minute walking time (assuming, all the while, an average walking speed of 3.1 miles per hour), 50 percent or more of those traveling that distance will prefer a feeder bus to walking, even in a low-income area, with a double fare.”

WMATA 2005 Development Related Ridership Survey Final Report, March 2006  
[http://www.wmata.com/bus2bus/jd/2005\\_Development-Related\\_Ridership](http://www.wmata.com/bus2bus/jd/2005_Development-Related_Ridership)

Update to 1989 survey to determine if changes in population growth, the regional economy, and the built environment had affected modal splits at certain types of land uses in Metrorail station areas, and if certain physical attributes of these land uses impact transit ridership. Dunn Loring station in Fairfax County included in survey.

“2005 survey results confirmed previous findings that the walking distance between a site and the Metrorail station affects transit ridership. In general, the closer a site is to the station, the greater the likelihood those traveling to/from a site choose Metrorail as their travel mode. Based on the survey results, this relationship was stronger for residential sites than for office sites.”

\*See attached Table S-2, Figure 14 and Figure 15

O’Sullivan, Sean and John Morrall. Walking Distances to and from Light-Rail Transit Stations. Transportation Research Record 1538.

<http://scholar.google.com/scholar?hl=en&lr=&q=cache:oEPEiEPfnFAJ:www.enhancemnts.org/trb%255C1538-003.pdf+O%27Sullivan+S.+and+Morrall,+J>

Abstract:

“...For the city of Calgary the average walking distance to suburban stations is 649 m with a 75th-percentile distance of 840 m. At CBD stations the average walking distance is 326 m and the 75th-percentile distance is 419 m.”

- Average walking distance to suburban station=649m=2129 feet=0.4 miles
  - 75<sup>th</sup> percentile (suburban stations): 840m=0.52 miles
- In CBD, average walking distance = 326m=0.2 miles
  - 75<sup>th</sup> percentile (CBD): 419m=0.26 miles
- Calgary, Canada: pedestrians are more than 25% of peak-period trips to or from suburban stations
- General walking distance is about 5 minutes or 400m (.25 miles)
- Analysis in San Francisco and Edmonton, Canada found that 1750m (1.08 mi) was maximum that people would walk to a



station, and that walking accounts for more than 50% of the access mode from distances up to approximately 900m (0.56 mi).

- Survey of walking distance guidelines used by North American companies
  - Canada: guidelines range from 300m to 900m (0.18 mi to 0.56 mi)
  - U.S.: generally between 400m and 800m (0.25 mi to 0.50 mi)



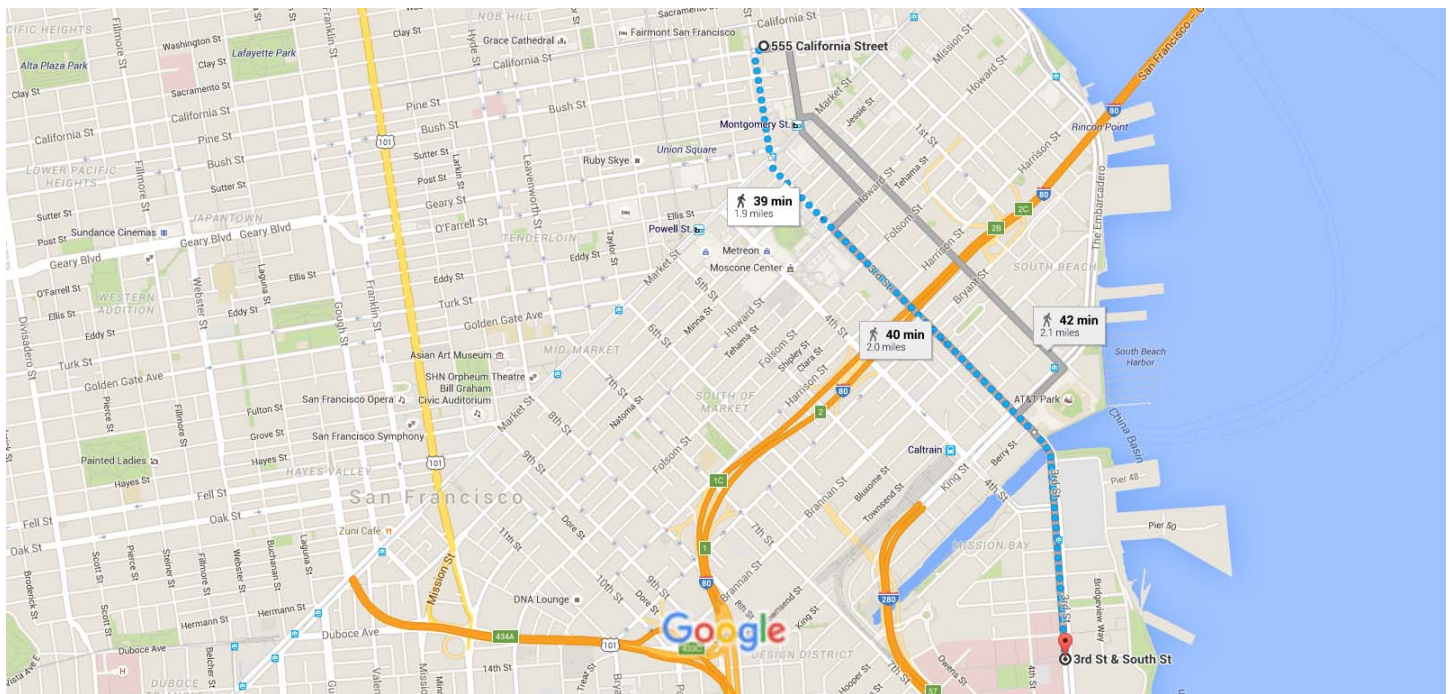
## EXHIBIT 13





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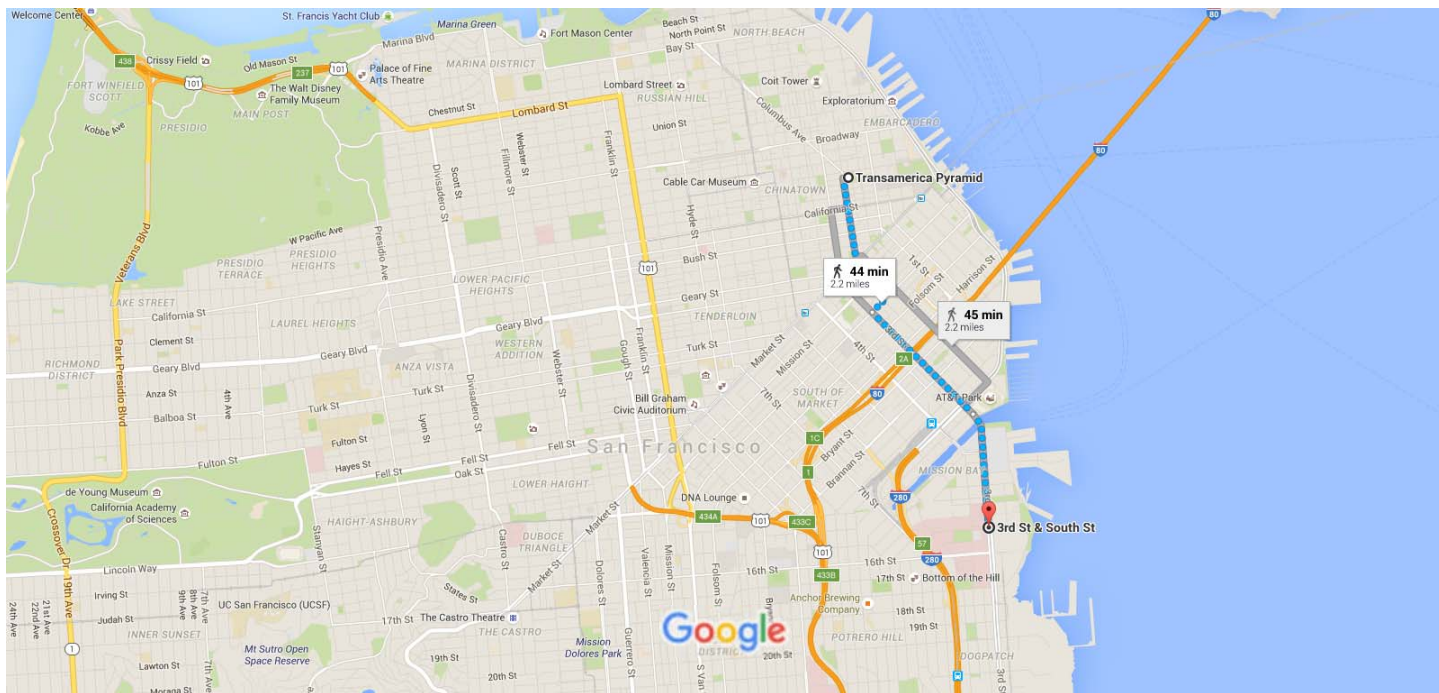
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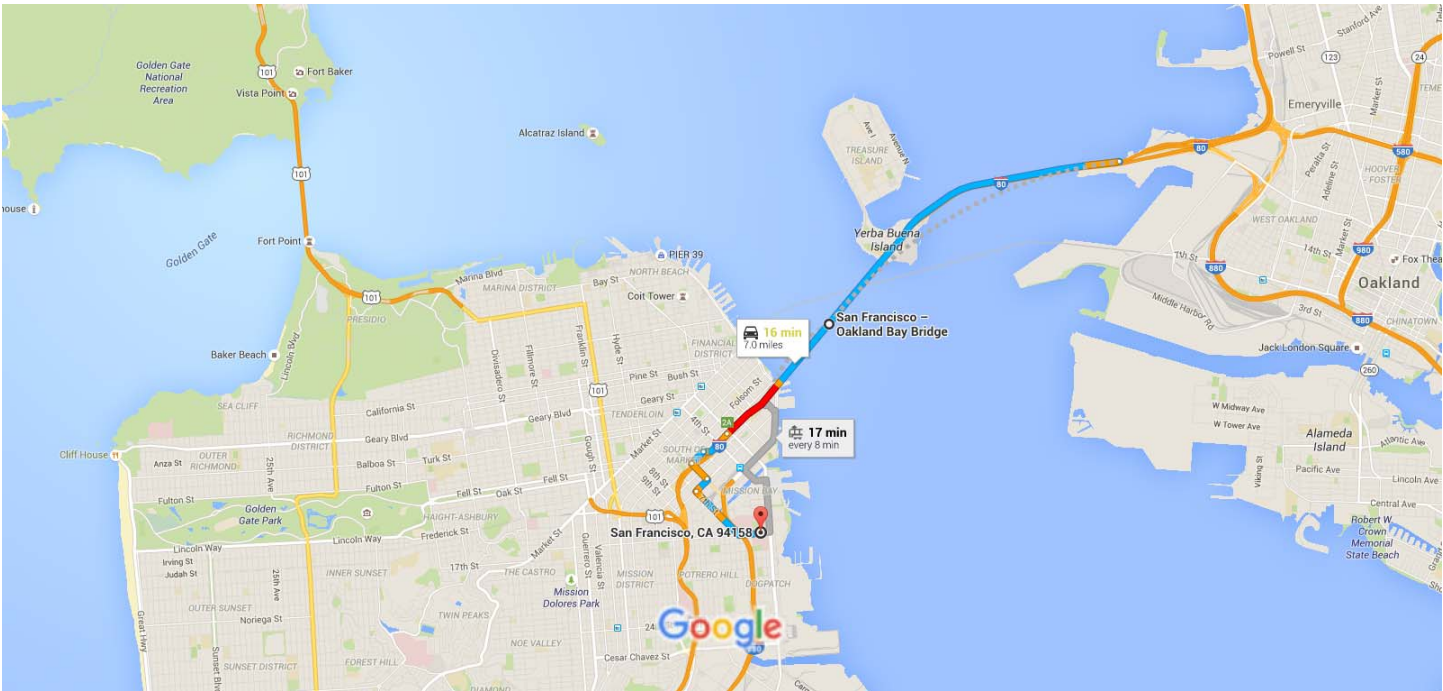
## EXHIBIT 14





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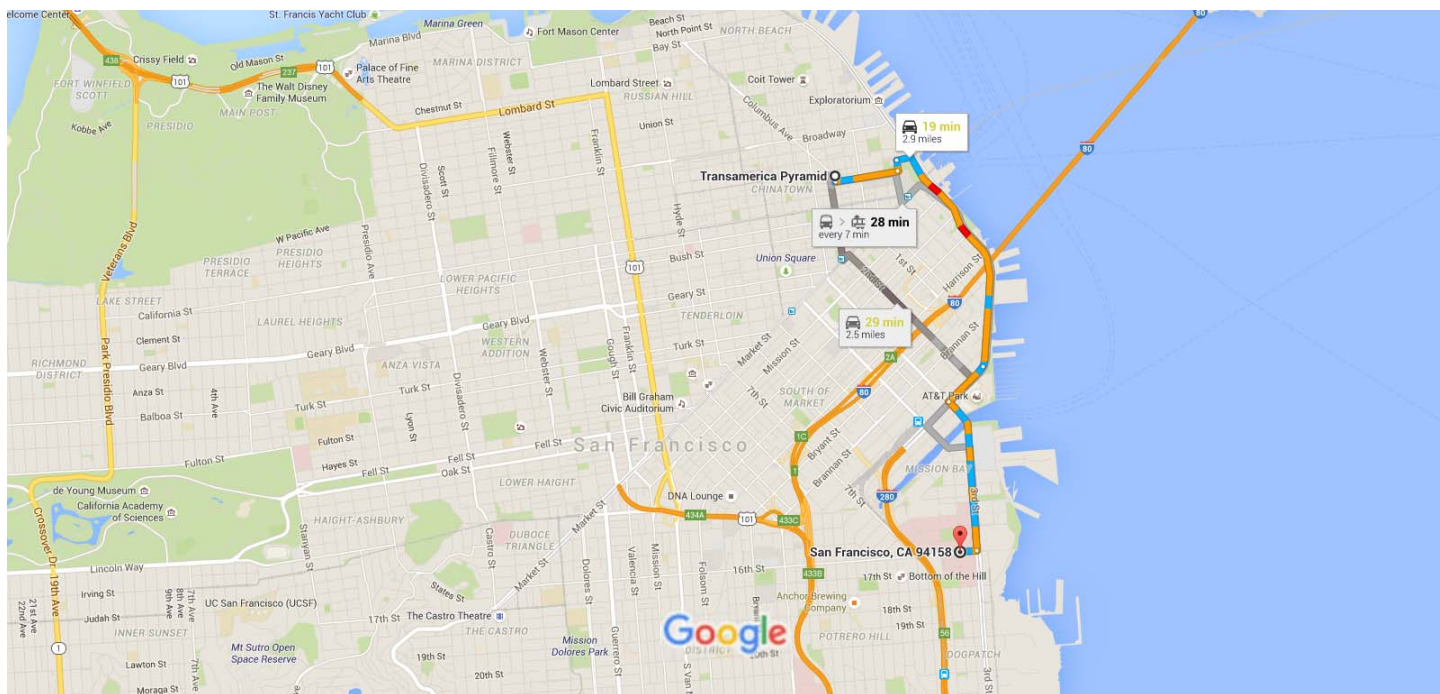
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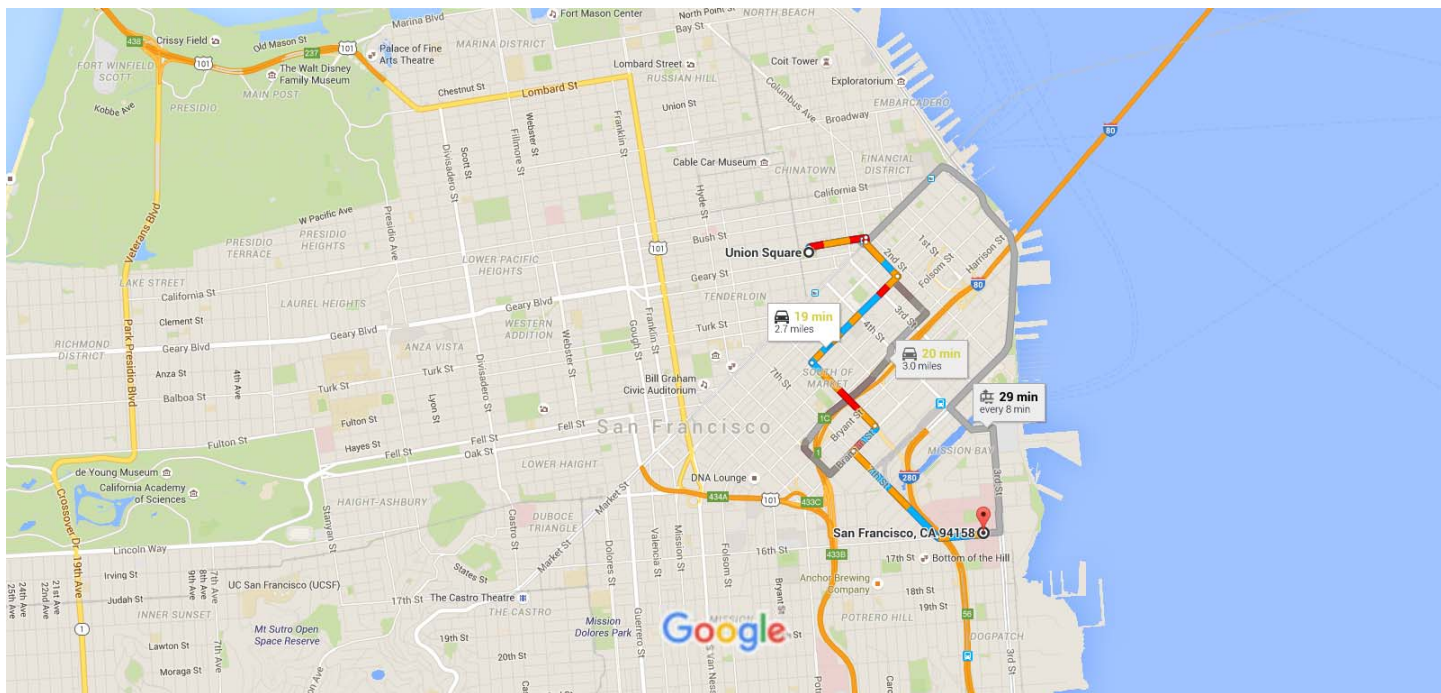


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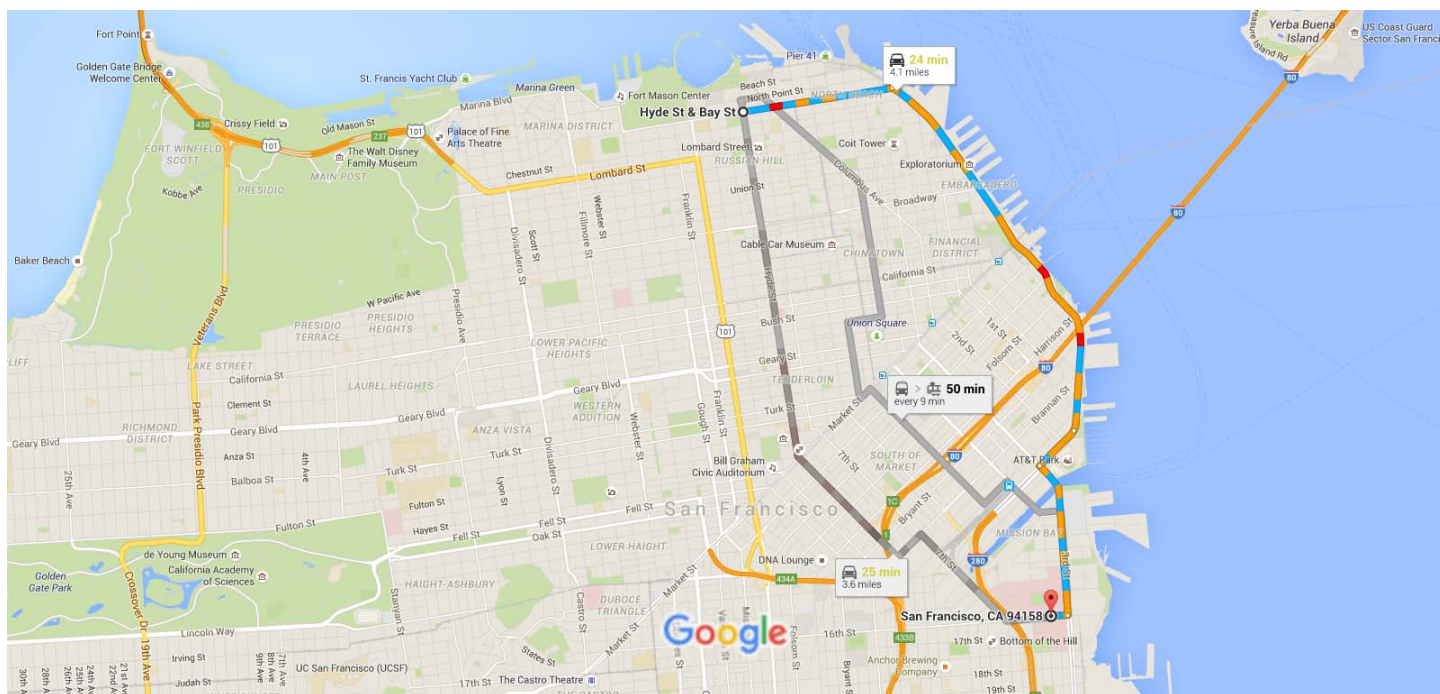
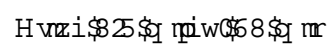
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## Carroll, John (BOS)

---

**From:** Tom Lippe <lippelaw@sonic.net>  
**Sent:** Monday, November 30, 2015 10:02 AM  
**To:** BOS Legislation, (BOS)  
**Cc:** Carroll, John (BOS); dkelly@warriors.com; CPC-WarriorsAdmin; Givner, Jon (CAT); Stacy, Kate (CAT); Malamut, John (CAT); Nuru, Mohammed (DPW); Sanguinetti, Jerry (DPW); Sweiss, Fuad (DPW); Storrs, Bruce (DPW); Sanchez, Scott (CPC); Jones, Sarah (CPC); Rodgers, AnMarie (CPC); Starr, Aaron (CPC); Pearson, Audrey (CAT); Rahaim, John (CPC); Bollinger, Brett (CPC); Ionin, Jonas (CPC); kaufhauser@warriors.com; CMiller@stradasf.com; BOS-Supervisors; BOS-Legislative Aides; Calvillo, Angela (BOS); Somera, Alisa (BOS); Patrick Soluri; Osha Meserve; Susan Brandt-Hawley  
**Subject:** Re: Mission Bay Alliance, Warriors EIR CEQA Appeal; Appellants' Partial Brief, 4th of 4 emails  
**Attachments:** Exhs 15 SENT Excerpts from CEQA Docs compress.pdf  
**Categories:** 150990

Dear Clerk of the Board of Supervisors,

This email is the fourth of four. Attached is:

- Exhibits 8-14 of 15 to Appellant's Partial Brief Re: Public Comment, Air Quality, Transportation, Water Quality, Biological, and Noise

Tom Lippe  
Law Offices of Thomas N. Lippe APC  
201 Mission St., 12th Floor  
San Francisco, CA 94105  
Tel 415 777-5604 x 1  
Fax 415 777-5606  
e-mail: [lippelaw@sonic.net](mailto:lippelaw@sonic.net)  
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On 11/30/2015 10:00 AM, Tom Lippe wrote:

Dear Clerk of the Board of Supervisors,

This email is the third of four. Attached are

- Exhibits 8-14 of 15 to Appellant's Partial Brief Re: Public Comment, Air Quality, Transportation, Water Quality, Biological, and Noise

Tom Lippe  
Law Offices of Thomas N. Lippe APC  
201 Mission St., 12th Floor  
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Tel 415 777-5604 x 1  
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On 11/30/2015 9:59 AM, Tom Lippe wrote:

Dear Clerk of the Board of Supervisors,

This email is the second of four. Attached are

- Exhibits 5-7 of 15 to Appellant's Partial Brief Re: Public Comment, Air Quality, Transportation, Water Quality, Biological, and Noise

Tom Lippe  
Law Offices of Thomas N. Lippe APC  
201 Mission St., 12th Floor  
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On 11/30/2015 9:57 AM, Tom Lippe wrote:

Dear Clerk of the Board of Supervisors

Attached, in .pdf format please find the above referenced appeal brief with exhibits.

Due to the size of the files, the brief and exhibits it will be transmitted in four (4) separate emails.

This email is the first of four. Attached are

- Appellant's Partial Brief Re: Public Comment, Air Quality, Transportation, Water Quality, Biological, and Noise  
- Exhibits 1-4 of 15

Eighteen hard copies of same will be hand delivered to your office today by 12noon.

Thank you for your attention to this matter.

Tom Lippe  
Law Offices of Thomas N. Lippe APC  
201 Mission St., 12th Floor  
San Francisco, CA 94105  
Tel 415 777-5604 x 1  
Fax 415 777-5606



e-mail: [lippelaw@sonic.net](mailto:lippelaw@sonic.net)  
Web: [www.lippelaw.com](http://www.lippelaw.com)

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On 11/24/2015 9:25 AM, Carroll, John (BOS) wrote:

Good morning,

I am resending this message in order to update the recipients list for this and future document distributions. If you received this message previously, feel free to ignore these links; I have not updated them.

The Office of the Clerk of the Board has scheduled a hearing date for Special Order before the Board of Supervisors on **December 8, 2015, at 3:00 p.m.** Please find linked below a letter regarding the Final Subsequent Environmental Impact Report certification and Tentative Map appeals for the proposed Golden State Warriors Event Center Project, as well as direct links to the Office of Community Investment and Infrastructure's timely filing determination for the CEQA appeal.

[Clerk of the Board Letter Re: FSIER Appeal - November 23, 2015](#)  
[OCII Memo Re: FSEIR Appeal - November 16, 2015](#)

[Clerk of the Board Letter Re: Tentative Map Appeal - November 23, 2015](#)

I invite you to review the entirety of both matters on our [Legislative Research Center](#) by following the links below.

[Board of Supervisors File No. 150990 - FSEIR Appeal](#)  
[Board of Supervisors File No. 151204 - Tentative Map Appeal](#)

Thank you,

**John Carroll**  
**Legislative Clerk**



Board of Supervisors  
San Francisco City Hall, Room 244  
San Francisco, CA 94102  
(415)554-4445 - Direct | (415)554-5163 - Fax  
[john.carroll@sfgov.org](mailto:john.carroll@sfgov.org) | [bos.legislation@sfgov.org](mailto:bos.legislation@sfgov.org)



Click [here](#) to complete a Board of Supervisors Customer Service Satisfaction form.

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***Disclosures:** Personal information that is provided in communications to the Board of Supervisors is subject to disclosure under the California Public Records Act and the San Francisco Sunshine Ordinance. Personal information provided will not be redacted. Members of the public are not required to provide personal identifying information when they communicate with the Board of Supervisors and its committees. All written or oral communications that members of the public submit to the Clerk's Office regarding pending legislation or hearings will be made available to all members of the public for inspection and copying. The Clerk's Office does not redact any information from these submissions. This means that personal information—including names, phone numbers, addresses and similar information that a member of the public elects to submit to the Board and its committees—may appear on the Board of Supervisors website or in other public documents that members of the public may inspect or copy.*



# EXHIBIT 15



DEIR

# DRAFT ENVIRONMENTAL IMPACT REPORT

## 5M Project

PLANNING DEPARTMENT  
CASE NO. 2011.0409E

STATE CLEARINGHOUSE NO. 2013011055



SAN FRANCISCO  
**PLANNING**  
DEPARTMENT

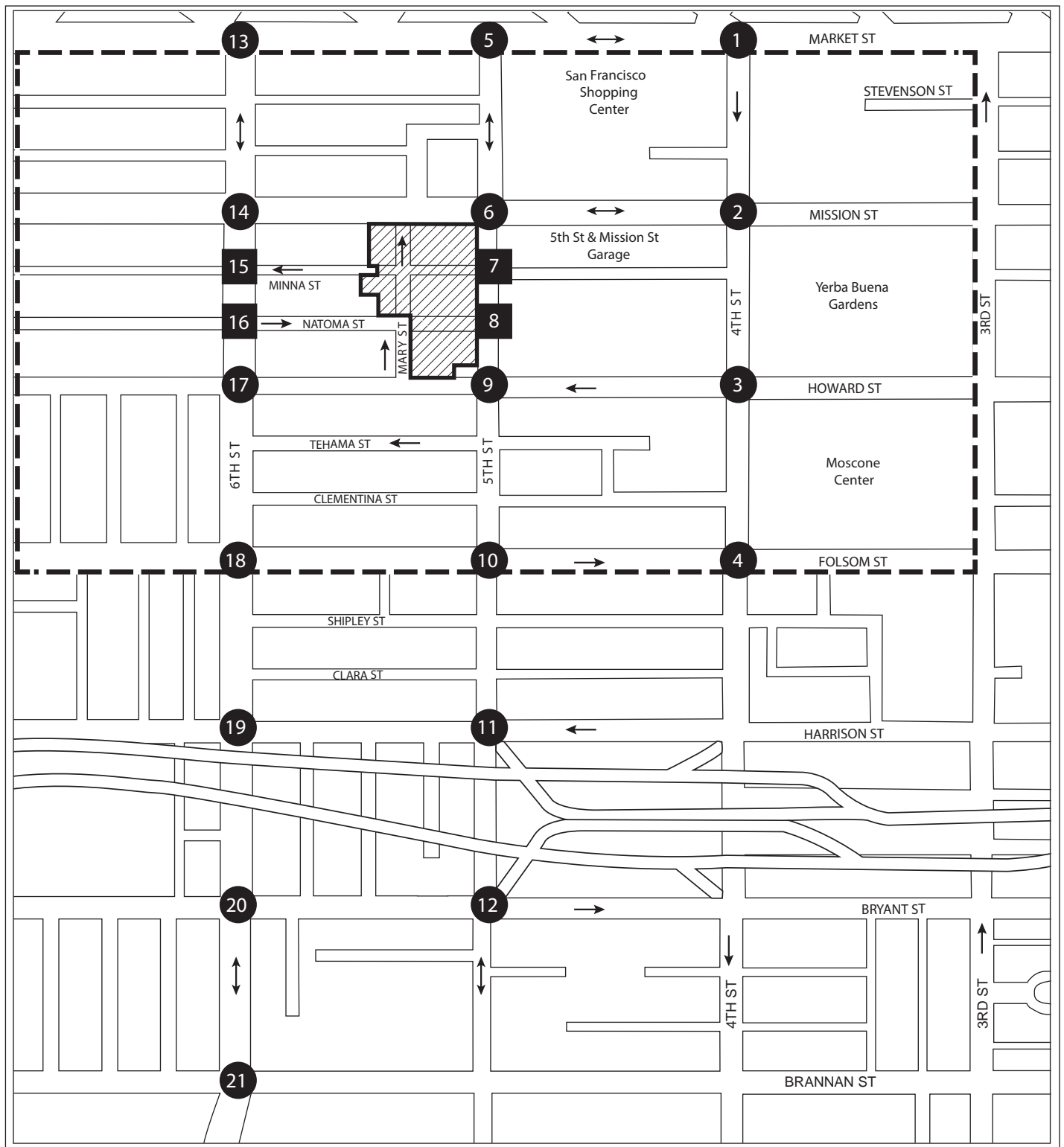
Draft EIR Publication Date:	OCTOBER 15, 2014
Draft EIR Public Hearing Date:	NOVEMBER 20, 2014
Draft EIR Public Comment Period:	OCTOBER 15, 2014 - DECEMBER 1, 2014

*Written comments should be sent to:*

Sarah Jones, Environmental Review Officer | 1650 Mission Street, Suite 400 | San Francisco, CA 94103  
or [sarah.b.jones@sfgov.org](mailto:sarah.b.jones@sfgov.org)

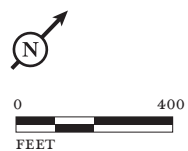
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LSA

FIGURE IV.D-1



-  PROJECT SITE
-  SIGNALIZED INTERSECTION
-  UNSIGNALIZED INTERSECTION
-  DIRECTION OF TRAVEL
-  PARKING AND TRANSIT STUDY AREA

SOURCE: LCW CONSULTING, 2014.

5M Project EIR  
Study Area and Analysis Locations



Seventeen of the 21 study intersections are signalized; and the four intersections of Minna and Natoma Streets with Fifth and Sixth Streets are unsignalized. The operating characteristics of intersections are described by the concept of Level of Service (LOS). LOS is a qualitative description of an intersection's performance based on the average delay per vehicle. Intersection levels of service range from LOS A, which indicates free flow or excellent conditions with short delays, to LOS F, which indicates congested or overloaded conditions with extremely long delays. LOS A through D are considered excellent to satisfactory service levels, LOS E is undesirable, and LOS F conditions are unacceptable.

**Table IV.D-1: Intersection Level of Service**

Intersection	Delay <sup>a</sup>	LOS <sup>b</sup>
1. Fourth/Market/Stockton	<b>56.1</b>	E
2. Fourth/Mission	28.0	C
3. Fourth/Howard	52.5	D
4. Fourth/Folsom	<b>&gt; 80 (1.09)</b>	F
5. Fifth/Market	<b>55.9</b>	E
6. Fifth/Mission	15.1	B
7. Fifth/Minna	2.5 (sb)	A
8. Fifth/Natoma	<b>38.2 (eb)</b>	E
9. Fifth/Howard	15.1	B
10. Fifth/Folsom	27.6	B
11. Fifth/Harrison	<b>58.7</b>	E
12. Fifth/Bryant	<b>&gt; 80 (1.25)</b>	F
13. Sixth/Market	44.6	D
14. Sixth/Mission	32.3	C
15. Sixth/Minna	<b>&gt; 50 (wb)</b>	F
16. Sixth/Natoma	<b>&gt; 50 (eb)</b>	F
17. Sixth/Howard	35.5	D
18. Sixth/Folsom	43.3	D
19. Sixth/Harrison	31.6	C
20. Sixth/Bryant	<b>&gt; 80 (1.43)</b>	F
21. Sixth/Brannan	<b>74.4</b>	E

<sup>a</sup> Delay presented in seconds per vehicle.

<sup>b</sup> Intersections operating at LOS E or LOS F highlighted in **bold**.

Source: Source: *5M Project Transportation Impact Study*, October 2014.

**Table IV.D-1** presents the results of the intersection LOS analysis for the existing weekday PM peak hour conditions. During the weekday PM peak hour, nine of the 17 signalized study intersections currently operate at LOS E or LOS F conditions. The signalized intersections of Fourth/Market/Stockton, Fourth/Folsom, Fifth/Market, Fifth/Harrison, Fifth/Bryant, Sixth/Bryant and Sixth/Brannan Streets operate at LOS E or LOS F conditions during the PM peak hour. In addition, the eastbound approaches at the unsignalized intersections of Fifth/Natoma and Sixth/Natoma Streets operate at LOS F conditions; however, due to the low volumes on Natoma Street, traffic signal warrants are not



At the study intersections of Fourth/Howard, Sixth/Folsom and Sixth/Brannan Streets, the worsening of intersection LOS conditions from LOS D to LOS E or LOS F, and from LOS E to LOS F would be considered a significant impact at these intersections.

**Table IV.D-11: Intersection Level of Service – Existing Plus Project Conditions, Weekday PM Peak Hour**

Intersection	Existing		Existing Plus Project	
	Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS
1. Fourth/Market/Stockton	<b>56.1</b>	E	<b>64.6</b>	E
2. Fourth/Mission	28.1	C	36.5	D
3. Fourth/Howard	52.5	D	<b>74.8</b>	E
4. Fourth/Folsom	<b>&gt; 80 (1.09)</b>	F	<b>&gt; 80 (1.12)</b>	F
5. Fifth/Market	<b>55.9</b>	E	<b>56.8</b>	E
6. Fifth/Mission	15.1	B	15.5	B
7. Fifth/Minna <sup>c</sup>	2.5 (sb)	A	3.0 (sb)	A
8. Fifth/Natoma <sup>c</sup>	<b>38.2 (eb)</b>	E	<b>40.9 (eb)</b>	E
9. Fifth/Howard <sup>e</sup>	15.1	B	17.5	B
10. Fifth/Folsom	27.2	C	46.5	D
11. Fifth/Harrison	<b>58.7</b>	E	<b>60.7</b>	E
12. Fifth/Bryant	<b>&gt; 80 (1.25)</b>	F	<b>&gt; 80 (1.28)</b>	F
13. Sixth/Market	44.6	D	45.3	D
14. Sixth/Mission	32.3	C	53.4	D
15. Sixth/Minna <sup>c</sup>	<b>&gt; 50 (wb)</b>	F	<b>&gt; 50 (wb)/[22.0]</b>	F/[C]
16. Sixth/Natoma <sup>c,d</sup>	<b>&gt; 50 (eb)</b>	F	<b>&gt; 50 (eb)</b>	F
17. Sixth/Howard	35.5	D	45.8	D
18. Sixth/Folsom	43.3	D	<b>&gt; 80 (1.16)</b>	F
19. Sixth/Harrison	31.6	C	44.6	D
20. Sixth/Bryant	<b>&gt; 80 (1.43)</b>	F	<b>&gt; 80 (1.47)</b>	F
21. Sixth/Brannan	<b>74.4</b>	E	<b>&gt; 80 (1.14)</b>	F

<sup>a</sup> Delay presented in seconds per vehicle. Intersections operating at LOS E or LOS F highlighted in **bold**.

<sup>b</sup> Shaded = project impact.

<sup>c</sup> Intersection stop sign-controlled. Delay and LOS presented for the approach with the highest delay.

<sup>d</sup> Contracting for installation of planned signal at the intersection of Sixth/Minna Streets is underway, and planned to be operational by the end of 2014. Average vehicle delay and LOS for Existing plus Project conditions with signalization presented in [brackets]. With signalization, the intersection would operate at LOS C conditions, and therefore, traffic impacts at this intersection would be considered less than significant.

<sup>e</sup> Existing and Existing plus Project intersection LOS analyses were also conducted at the intersection of Fifth/Howard Streets for AM peak hour conditions. Under Existing conditions, during the AM peak hour, the intersection of Fifth/Howard Streets currently operates at LOS B conditions with an average vehicle delay of 15.3 seconds per vehicle, and under Existing plus Project conditions the average vehicle delay would increase to 16.5 seconds per vehicle and the intersection would operate at LOS B conditions.

Source: 5M Project Transportation Impact Study, October 2014.





# **DRAFT ENVIRONMENTAL IMPACT REPORT**

## **801 Brannan and One Henry Adams Streets Project**

PLANNING DEPARTMENT CASE NO. 2000.618E

STATE CLEARINGHOUSE NO. 2003112070



**SAN FRANCISCO  
PLANNING  
DEPARTMENT**

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*Written comments should be sent to:*  
Environmental Review Officer | 1650 Mission Street, Suite 400 | San Francisco, CA 94103



## D. TRANSPORTATION AND CIRCULATION

This section analyzes the potential project-level and cumulative impacts on transportation and circulation resulting from implementation of the proposed project or either variant. Transportation-related issues of concern that are addressed include traffic on local roadways, transit, bicycles, pedestrians, loading, emergency vehicle access, and construction-related activities. Additionally, a parking analysis is included for informational purposes. Transportation impacts are assessed for the proposed project for weekday p.m. peak period. This section also identifies mitigation measures that would reduce or avoid significant impacts, and recommends improvement measures to reduce less-than-significant impacts.

This section is based on information contained within the 801 Brannan Street and One Henry Adams Street Transportation Impact Study, March 7, 2011, prepared for this project by LCW Consulting.<sup>110</sup> The transportation study analysis includes analysis for development of the BMR parcel by the Mayor's Office of Housing (MOH); therefore, the study results include transportation impacts resulting from the proposed development at the One Henry Adams site as well as both the project sponsor-funded and City-funded aspects of the proposed development of the 801 Brannan site including the two variants for the 801 Brannan site.

### SETTING

The transportation study area includes all aspects of the transportation network that may be measurably affected by the proposed project. The transportation study area is defined by the travel corridors and by facilities such as bus stops and transit stations. For this analysis, 16 intersections were identified as the key locations likely to be affected by the proposed project. These intersections are shown on Figure 34, page 154). Transit and parking conditions were assessed for a study area bounded by Bryant Street, Sixth Street/I-280, Berry Street, De Haro Street, Sixteenth Street, US 101/I-80, Division Street, and Tenth Street (see Figure 34, page 154).

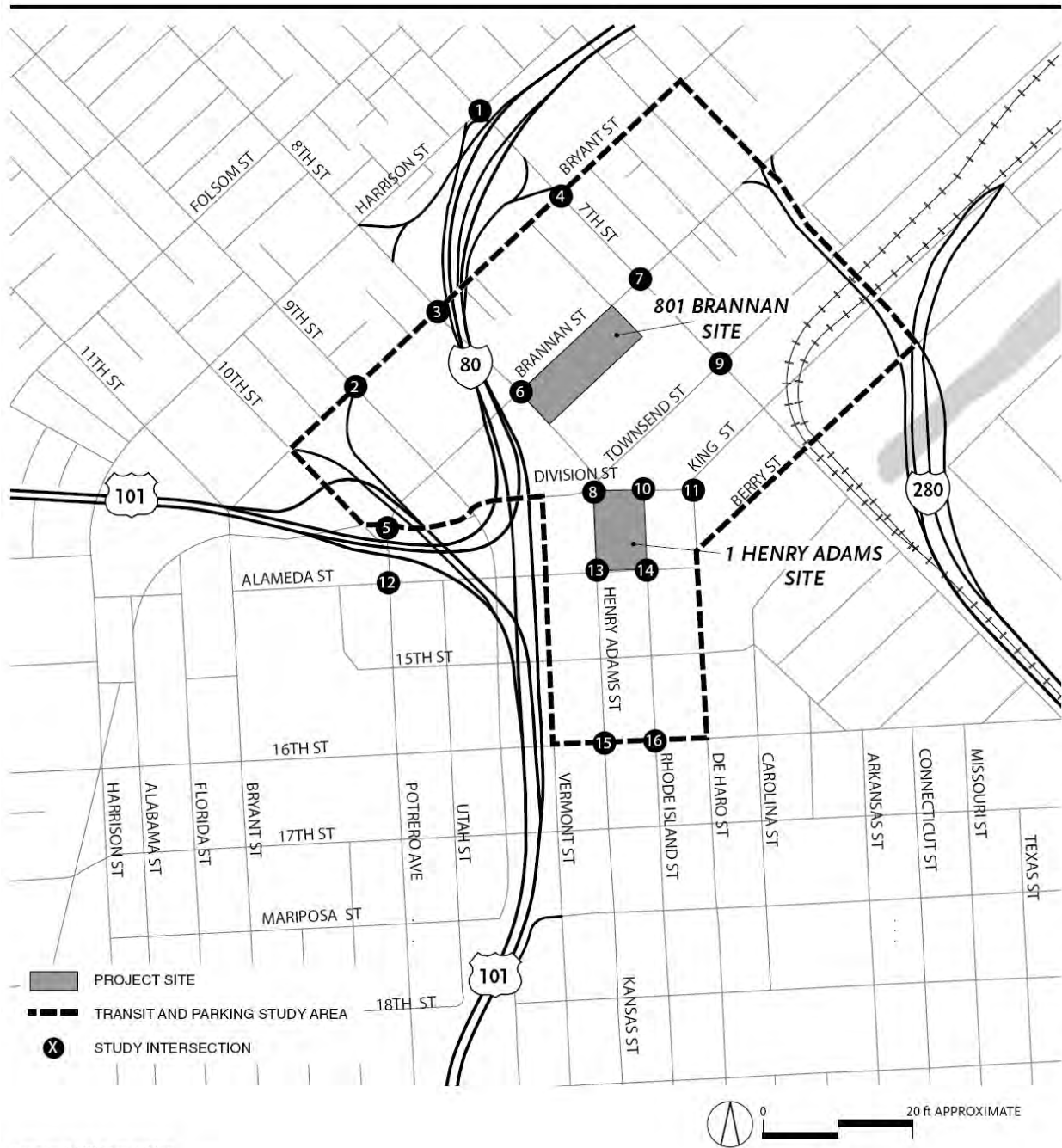
### Roadway Network

Travel to and from the project sites involves the use of regional and local transportation facilities, highways, and transit services that link San Francisco with other parts of the Bay Area and northern

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<sup>110</sup> LCW Consulting, 801 Brannan Street & One Henry Adams Street Transportation Impact Study, Final, March 7, 2011. This document is available for public review at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of 2000.618E





Source: LCW Consulting

6-7-11

Transportation Study Intersections Figure 34



<b>Table 2</b> <b>Intersection Level of Service</b> <b>Existing Conditions – Weekday PM Peak Hour</b>		
<b>Intersection (keyed to Figure 34)</b>	<b>Delay <sup>1</sup></b>	<b>LOS</b>
<b>Signalized</b>		
1. Seventh/Harrison	29.8	C
2. Ninth/Bryant	40.8	D
3. Eighth/Bryant	23.0	C
4. Seventh/Bryant	21.5	C
<b>5. Division/Brannan/Potrero/Tenth</b>	<b>57.8</b>	<b>E</b>
<b>6. Eighth/Brannan</b>	<b>55.4</b>	<b>E</b>
7. Seventh/Brannan <sup>5</sup>	49.6	D
9. Seventh/Townsend	37.0	D
12. Alameda/Potrero	11.3	B
15. Sixteenth/Kansas/Henry Adams	17.4	B
<b>Unsignalized</b>		
8. Eighth/Townsend/Division/Henry Adams <sup>2</sup>	18.1 (wb)	C
10. Division/Rhode Island <sup>3</sup>	24.6 (nb)	C
11. Division/King/De Haro <sup>2</sup>	10.8 (sb)	B
13. Alameda/Henry Adams <sup>2</sup>	11.4 (nb/sb)	B
14. Alameda/Rhode Island <sup>4</sup>	11.7 (wb)	B
<b>16. Sixteenth/Rhode Island <sup>4</sup></b>	<b>48.7 (nb)</b>	<b>E</b>

Notes:

1. Delay presented in seconds per vehicle. Intersections operating at LOS E or LOS F highlighted in **bold**.
  2. Intersections 4-way STOP-controlled. Delay and LOS presented for worst approach, indicated in ( ). wb = westbound, sb = southbound, nb = northbound, eb = eastbound.
  3. Uncontrolled T-intersection. Northbound Rhode Island Street traffic yields to eastbound/westbound Division Street traffic. Analyzed assuming STOP-sign control for northbound Rhode Island Street.
  4. Intersection 2-way STOP-controlled.
- Source: LCW Consulting, 2011

## Transit Network

The project sites are served by public transit, with both local and regional service provided in the vicinity of the proposed project. Local service is provided by the San Francisco Municipal Railway (Muni) bus lines, which can also be used to access regional transit operators (including BART, AC Transit, Golden Gate Transit, SamTrans, and Caltrain).

Transit service within the City and County of San Francisco is provided by Muni, including bus (both diesel and electric trolley), light rail (Muni Metro), cable car, and electric streetcar lines. Muni operates



**Table 10**  
**Intersection Level of Service**  
**Existing plus Proposed Project and Variant Conditions – Weekday PM Peak Hour**

Intersection	Existing		Existing plus Project		Existing plus Project w/ Variant 1		Existing plus Project w/ Variant 2	
	Delay <sup>1</sup>	LOS	Delay	LOS	Delay	LOS	Delay	LOS
<b>Signalized</b>								
1. Seventh/Harrison	29.8	C	36.9	D	36.9	D	36.9	D
2. Ninth/Bryant	40.8	D	41.8	D	41.8	D	41.8	D
3. Eighth/Bryant	23.0	C	24.5	C	24.6	C	24.6	C
4. Seventh/Bryant	21.5	C	22.1	C	22.1	C	22.1	C
5. Division/Brannan/Potrero/Tenth	<b>57.8</b>	<b>E</b>	<b>61.5</b>	<b>E</b>	<b>61.5</b>	<b>E</b>	<b>61.5</b>	<b>E</b>
6. Eighth/Brannan	<b>55.4</b>	<b>E</b>	<b>77.5</b>	<b>E</b>	<b>77.4</b>	<b>E</b>	<b>77.5</b>	<b>E</b>
7. Seventh/Brannan <sup>5</sup>	49.6	D	41.8	D	42.2	D	41.9	D
9. Seventh/Townsend	37.0	D	53.3	D	53.7	D	53.5	D
12. Alameda/Potrero	11.3	B	11.4	B	11.4	B	11.4	B
15. Sixteenth/Kansas/Henry Adams	17.4	B	23.1	C	23.3	C	23.2	C
<b>Unsignalized</b>								
8. Eighth/Townsend/Division/Henry Adams <sup>2</sup>	18.1 (wb)	C	23.9 (sb)	C	24.1 (sb)	C	24.0 (sb)	C
10. Division/Rhode Island <sup>3</sup>	24.6 (nb)	C	<b>39.1 (nb)</b>	<b>E</b>	<b>39.5 (nb)</b>	<b>E</b>	<b>39.2 (nb)</b>	<b>E</b>
11. Division/King/De Haro <sup>2</sup>	10.8 (sb)	A	10.9 (sb)	B	10.9 (sb)	B	10.9 (sb)	B
13. Alameda/Henry Adams <sup>2</sup>	11.4 (nb)	B	15.0 (nb)	C	15.1 (nb)	C	15.1 (nb)	C
14. Alameda/Rhode Island <sup>4</sup>	11.7 (wb)	B	12.3 (wb)	B	12.3 (wb)	B	12.3 (wb)	B
16. Sixteenth/Rhode Island <sup>4</sup>	<b>48.7 (nb)</b>	<b>E</b>	<b>&gt;50</b>	<b>F</b>	<b>&gt;50 (nb/sb)</b>	<b>F</b>	<b>&gt;50 (nb/sb)</b>	<b>F</b>

Notes:

1. Delay presented in seconds per vehicle. Intersections operating at LOS E or LOS F highlighted in **bold**. 2. Intersections 4-way STOP-controlled. Delay and LOS presented for worst approach, indicated in ( ). wb = westbound, sb = southbound, nb = northbound, eb = eastbound.
3. Uncontrolled T-intersection. Northbound Rhode Island Street traffic yields to eastbound/westbound Division Street traffic. Analyzed assuming STOP-sign control for northbound Rhode Island Street.
4. Intersection 2-way STOP-controlled.
5. At the intersection of Seventh/Brannan, SFMTA planned improvement for early 2011 were assumed for the analysis of “plus project” conditions. Improvements include restriping of westbound and eastbound approaches. Additional adjustments to signal timing assumed.

Source: LCW Consulting, 2011.



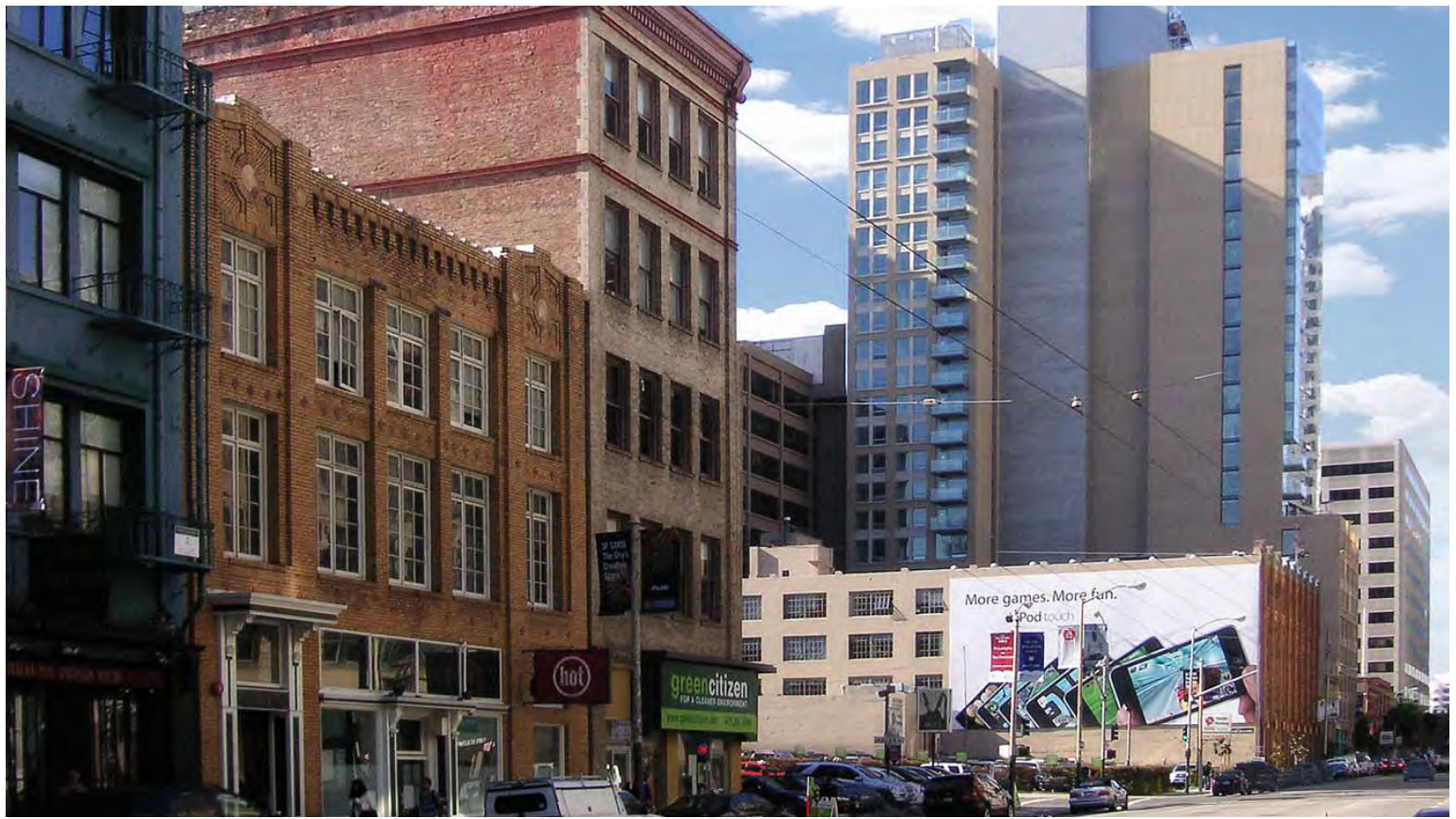
<b>Table 11</b> <b>Intersection Level of Service</b> <b>2025 Cumulative Conditions – Weekday PM Peak Hour</b>				
Intersection	Existing		2025 Cumulative	
	Delay <sup>1</sup>	LOS	Delay	LOS
<b>Signalized</b>				
1. Seventh/Harrison	29.8	C	>80	F
2. Ninth/Bryant	40.8	D	<b>60.6</b>	E
3. Eighth/Bryant	23.0	C	>80	F
4. Seventh/Bryant	21.5	C	>80	F
5. Division/Brannan/Potrero/Tenth	<b>57.8</b>	E	>80	F
6. Eighth/Brannan	<b>55.4</b>	E	>80	F
7. Seventh/Brannan <sup>5</sup>	49.6	D	<b>75.7</b>	E
8. Eighth/Townsend/Division/Henry Adams <sup>2</sup>	18.1(wb)	C	44.1	D
9. Seventh/Townsend	37.0	D	>80	F
12. Alameda/Potrero	11.3	B	13.8	B
15. Sixteenth/Kansas/Henry Adams	17.4	B	>80	F
16. Sixteenth/Kansas/Rhode Island <sup>6</sup>	<b>48.7 (nb)</b>	E	>80	F
<b>Unsignalized</b>				
10. Division/Rhode Island <sup>3</sup>	24.6 (nb)	C	<b>&gt;50 (nb)</b>	F
11. Division/King/De Haro <sup>3</sup>	10.8 (sb)	A	18.3 (sb)	C
13. Alameda/Henry Adams <sup>3</sup>	11.4 (nb)	B	22.0 (nb)	C
14. Alameda/Rhode Island <sup>4</sup>	11.7 (wb)	B	13.9 (wb)	B

Notes:

1. Delay presented in seconds per vehicle. Intersections operating at LOS E or LOS F highlighted in bold, and v/c ratio provided for signalized intersections.
2. Intersection signalized as part of Mission Bay Development Plan improvements.
3. Intersections 4-way STOP-controlled. Delay and LOS presented for worst approach, indicated in ( ). wb = westbound, sb = southbound, nb = northbound.
4. Intersection 2-way STOP-controlled.
5. At intersection of Seventh/Brannan, SFMTA planned improvement for early 2011 were assumed for the analysis of 2025 Cumulative conditions. Improvements include restriping of westbound and eastbound approaches. Additional adjustments to signal timing assumed.
6. Signalization of intersection by SFMTA. Implementation anticipated by the end of 2011.

Source: LCW Consulting, 2011.





## DRAFT ENVIRONMENTAL IMPACT REPORT

# 222 Second Street Office Project

PLANNING DEPARTMENT  
CASE NO. 2006.1106E

STATE CLEARINGHOUSE NO. 2007052113



SAN FRANCISCO  
PLANNING  
DEPARTMENT

	Draft EIR Publication Date:	January 27, 2010
	Draft EIR Public Hearing Date:	March 4, 2010
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*Written comments should be sent to:*

Environmental Review Officer | 1650 Mission Street, Suite 400 | San Francisco, CA 94103  
10731



## Impact Analysis

### *Travel Demand Analysis*

The project would generate about 10,950 total person trips per day, with a total of about 1,075 total person trips during the p.m. peak hour, of which about 250 would be vehicle trips,<sup>53</sup> 510 would be transit trips, 155 would be walking trips, and the remainder by other modes such as bicycle, motorcycle and taxi.<sup>54</sup>

The project would be subject to a variety of transportation management requirements under *Planning Code* Section 163, whose intent is to assure that adequate measures are undertaken and maintained to minimize transportation effects of added office employment in the downtown and South of Market area, by facilitating the effective use of transit, encouraging ridesharing, and employing other practical means to reduce commute travel by single-occupant vehicles.

### *Traffic Impacts*

#### **Impact TR-1: Traffic generated by the proposed project would degrade level of service at certain local intersections. (Significant but Mitigable)**

Of the 250 net new p.m. peak-hour vehicle trips generated by the project, about 54 percent would be to or from locations within San Francisco, while the remainder would be headed to or from the East Bay, the Peninsula/South Bay, and the North Bay. East Bay-bound vehicles would make up approximately one-fifth of the outbound vehicle trips, or about 40 additional cars heading for the East Bay (assumed to be via the Bay Bridge) in the p.m. peak hour. These 40 additional cars would incrementally contribute to the substantial queuing that currently occurs on access routes to the Bay Bridge, such as First Street. Peninsula/South Bay-bound traffic would amount to about 25 new vehicles, which likewise would incrementally contribute to queuing that now occurs at southbound access routes, such as the on-ramp at Fourth/Harrison Streets.

As shown in Table 2, eight of the 11 signalized intersections studied currently operate at good (LOS D<sup>55</sup> or better) service levels during the p.m. peak hour. Two of the three intersections that operate at unacceptable LOS E or F conditions are located on the primary approaches to I-80 and the Bay Bridge (Harrison/ First Streets, and Harrison/Fourth Streets), and traffic to the bridge passes through the third intersection (Harrison/Second Streets). The one unsignalized study intersection, Second/Tehama Streets, operates at an acceptable LOS D. The intersections selected for analysis were chosen because they would be the most likely to be affected by project traffic. While project-generated vehicles would also travel through other intersections, it would have less impact on intersections farther from the project site, as vehicles would disperse among the available streets as they travel away from the site.

<sup>53</sup> The 250 vehicle trips represent 365 person-trips by vehicle; the number of vehicle trips is less than the number of person trips by vehicle because some person trips are made in vehicles carrying more than one person.

<sup>54</sup> Travel demand for the proposed project was calculated on the basis of trip generation rates, and p.m. peak-hour percentage of daily traffic, for Office and Retail uses presented in the San Francisco Planning Department, *Guidelines for Environmental Review: Transportation Impacts* (Appendices 1 and 2).

<sup>55</sup> Traffic operations are characterized using a p.m. peak-hour level of service (LOS) analysis, which provides a standardized means of rating an intersection's operating characteristics on the basis of traffic volumes, intersection capacity and delays. LOS A represents free-flow conditions, with little or no delay, while LOS F represents congested conditions, with extremely long delays; LOS D (moderately high delays) is considered the lowest acceptable level in San Francisco.



**TABLE 2**  
**PM PEAK-HOUR INTERSECTION LEVELS OF SERVICE (LOS)**  
**AND AVERAGE STOPPED DELAY IN SECONDS PER VEHICLE<sup>a</sup>**

Intersection	Existing (2007)		Existing + Project		Cumulative (2025) <sup>b</sup>		Project Contribution <sup>c</sup>
	LOS <sup>d</sup>	Delay <sup>d</sup>	LOS <sup>d</sup>	Delay <sup>d</sup>	LOS <sup>d</sup>	Delay <sup>d</sup>	
1. Mission Street / Third Street	D	38.0 (v/c = 0.74)	D	42.9 (v/c = 0.76)	F	>80 (v/c = 1.24)	2.3%
2. Howard Street / Third Street	B	19.2 (v/c = 0.70)	C	20.0 (v/c = 0.72)	<b>F</b>	<b>&gt;80</b> (v/c = 0.98)	<b>5.2%</b>
3. Howard St / New Montgomery St	D	36.8 (v/c = 0.92)	D	36.8 (v/c = 0.93)	<b>F</b>	<b>&gt;80</b> (v/c = 1.23)	<b>6.5%</b>
4. Howard Street / Second Street	C	25.1 (v/c = 0.92)	D	51.8 (v/c = 1.08)	F	>80 (v/c = 2.17)	4.1%
5. Howard Street / First Street	C	26.2 (v/c = 1.00)	C	26.3 (v/c = 1.00)	F	>80 (v/c = 1.79)	0.5%
6. Howard Street / Fremont Street	C	20.2 (v/c = 0.71)	C	20.3 (v/c = 0.71)	F	>80 (v/c = 1.16)	0.6%
7. Folsom St. / Hawthorne St.	D	47.7 (v/c = 0.86)	D	47.7 (v/c = 0.86)	E	76.6 (v/c = 1.09)	1.1%
8. Folsom Street / Second Street	D	36.8 (v/c = 0.99)	<b>E</b>	<b>60.5</b> (v/c = 1.08)	<b>F</b>	<b>&gt;80</b> (v/c = 2.13)	<b>7.4%</b>
9. Harrison Street/ Fourth Street	E	62.0 (v/c = 0.98)	E	68.1 (v/c = 0.99)	F	>80 (v/c = 1.25)	2.7%
10. Harrison Street / Second Street	E	55.7 (v/c = 1.29)	<b>E</b>	<b>64.2</b> (v/c = 1.47)	<b>F</b>	<b>&gt;80</b> (v/c = 4.10)	<b>5.1%</b>
11. Harrison Street / First Street	F	>80 (v/c = 1.51)	F	>80 (v/c = 1.58)	F	>80 (v/c = 2.32)	2.7%
12. Second Street / Tehama Street (side-street stop-controlled)	D	28.7	<b>F</b>	<b>&gt;50</b>	F	>50	N/A

<sup>a</sup> Levels of service (LOS) were determined using the analysis methodologies presented in the 2000 *Highway Capacity Manual*.

<sup>b</sup> Cumulative volumes were derived on the basis of information about traffic growth patterns, which used the San Francisco County Transportation Authority countywide travel demand forecasting model, taking into account the development anticipated in the vicinity of 222 Second Street, plus the expected growth in housing and employment for the remainder of San Francisco and the nine-county Bay Area.

<sup>c</sup> Project's percent contribution to the 2007-to-2025 growth in cumulative traffic volumes at intersections projected to operate at LOS E or F. **Bold** typeface signifies a cumulatively considerable contribution to LOS F conditions (a significant impact), based on the project's contribution to the intersection's critical turning movements; that is, whether the project would add a substantial number of vehicles to these movements (see page 83 for further discussion of the method for determining impact significance).

<sup>d</sup> The LOS and delay for signalized intersections represent conditions for the overall intersection. The LOS and delay for side-street stop-controlled unsignalized intersections represent conditions for the worst (most congested) movements (typically left turns from the side street onto the main street). For an intersection operating at LOS E or F under any analyzed scenario, the volume-to-capacity ratio (v/c) is presented to provide another measure of how the intersection is operating.

**Bold** typeface indicates a significant project or cumulatively impact.

SOURCES: Environmental Science Associates and AECOM



With the addition of project traffic,<sup>56</sup> operating conditions at the Folsom/Second Streets intersection would degrade from LOS D to an unacceptable LOS E, which would constitute a significant project impact. Also, while the Harrison/Second Streets intersection would remain at the same unacceptable

LOS E, because project traffic would constitute about 16 percent of the southbound left turn volume (which would operate with unacceptable LOS F conditions), the increased delay at this intersection would constitute a significant project traffic impact. At the unsignalized study intersection of Second/Tehama Streets, the addition of project-generated traffic would cause side-street left turns to degrade to unacceptable LOS (eastbound Tehama left turns from LOS C to LOS F, and westbound Tehama left turns from LOS D to LOS E), which would constitute a significant project traffic impact.<sup>57</sup> Traffic conditions would satisfy the Peak Hour Signal Warrant for the Second/Tehama intersection. Conditions would also worsen from existing conditions at two other study intersections (Howard/Third Streets and Howard/Second Streets), but would remain at an acceptable LOS D or better in each case, and therefore project traffic would not result in a significant impact at these two intersections.

Implementation of Mitigation Measures M-TR-1a, p. 89, and M-TR-1b, p. 89, would reduce project impacts to a less-than-significant level at the intersections of Second and Tehama Streets and Folsom and Second Streets. However, no mitigation is available for the impacts at the intersection of Second and Harrison Streets, and this impact would be significant and unavoidable.

### Cumulative Traffic Impacts

#### **Impact TR-2: Traffic generated by the proposed project, in conjunction with past, present, and reasonably foreseeable future projects would further degrade level of service at certain local intersections. (Significant and Unavoidable)**

Cumulative traffic impacts were assessed by adding projected traffic increases from anticipated future local and development (including projects proposed within the Transit Center Plan study area) to future baseline volumes derived from the San Francisco County Transportation Authority countywide travel demand forecasting model.<sup>58</sup> Due to the substantial increase in development anticipated for the South of Market area by 2025, all 12 study intersections would operate at unacceptable LOS E or F under 2025 cumulative conditions (as compared to three intersections operating at LOS E or F under Existing conditions).

<sup>56</sup> Analysis of project effects conservatively assumed that all project-generated vehicular traffic would use parking spaces provided in the on-site garage. Additionally, while vehicles currently parking in the on-site parking lot (to be eliminated) would be redistributed to other parking facilities in the area, those vehicles were conservatively assumed to continue to travel through the study intersections.

<sup>57</sup> Currently most drivers leaving the project site's surface parking lot exit onto Howard Street, and nearly all who exit via Tehama turn right onto Second Street (only about 5 percent of exiting traffic turns left onto northbound Second Street). Left turns from Tehama onto Second are potentially dangerous (near collisions were observed) mainly because sight distance is restricted by parked vehicles and by buses at the bus stop just north of Tehama Street.

<sup>58</sup> The cumulative analysis was prepared in advance of the more recent Transportation Authority modeling efforts undertaken in connection with the proposed Transit Center Plan and EIR. However, a list of reasonably foreseeable developments in the Transit Center Plan area was developed that is comparable to growth anticipated under the Transit Center Plan and provides a reasonable projection of cumulative conditions in 2025.



To assess the effect of added traffic generated by the project on the above-described LOS E or F cumulative 2025 conditions, the percent contribution of project trips to future volumes was determined and, for intersections where the project contribution to cumulative growth would be 5 percent or greater, the project contribution to the traffic volumes at the critical movements are evaluated further to determine whether the project contribution to a critical movement would be substantial. As shown in Table 2, in addition to the project-specific significant traffic impact at the Folsom/Second, Harrison/Second, and Second/Tehama intersections for Existing Plus Project conditions, the project's share of future traffic growth at the intersections of Howard/Third Streets, Howard/New Montgomery Streets, Folsom/Second Streets, and Harrison/Second Streets would constitute a cumulatively considerable traffic contribution to adverse 2025 cumulative traffic conditions, and would be considered a significant impact. That determination was reached based on the examination of the traffic volumes for the vehicle movements that determine the overall level of service performance at the intersections projected to operate at LOS E or F under 2025 cumulative conditions. The project would add substantial numbers of vehicles to turning movements that determine the overall LOS F performance (i.e., "critical" movements) at these four intersections.

The project's traffic contribution to adverse cumulative traffic conditions at the other seven signalized intersections projected to operate at LOS E or F would be considered less than significant. That was also determined based on the examination of the traffic volumes for the traffic movements that determine overall level of service performance at the intersections of Mission/Third, Howard/Second, Howard/First, Howard/Fremont, Folsom/Hawthorne, Harrison/Fourth, and Harrison/First. In these case, the project would either add traffic to movements that would continue to operate satisfactorily, or would add a small number of vehicles to intersection movements that would operate poorly under cumulative conditions.

It is noted that the Transbay Terminal / Rincon Hill areas of the City have been, and currently are being (as part of the proposed Transit Center Plan analysis), studied for possible development scenarios, and associated road network configurations to best support that development (including possible conversion of portions of Folsom and Howard Streets from one-way to two-way configuration). The effect of possible reconfiguration of roads on traffic flow in the project area has not been quantified, but in general, two-way streets have a lower carrying capacity than one-way streets (with resulting worse LOS at intersections). However, some travel paths (including those between the project garage and trip origins and/or destinations) could be less circuitous with two-way streets than with one-way streets. Until road network changes are formally proposed, their effect on impacts described herein for the 222 Second Street project is considered speculative. Nevertheless, it can be stated with a high degree of certainty that the proposed 222 Second Street project would not result in such a substantial contribution to traffic congestion that it would make a considerable contribution to potential cumulative impacts at intersections other than those noted above, regardless of potential future changes in the street network. Therefore, the project would not result in a significant impact with respect to network changes that might be proposed as part of the proposed Transit Center District Plan or other such planning efforts.

As with existing-plus-project conditions, traffic from the 222 Second Street project and from other projects considered in the cumulative analysis would affect intersections other than those included in the project-specific analysis for 222 Second Street. Traffic destined for the Bay Bridge and for other freeway



on-ramps in or near the Transbay Study Area would continue to experience congestion in the p.m. peak hour, and the project would contribute incrementally to increased delays at some of these intersections. As with existing-plus-project conditions, however, project traffic would have less impact on intersections farther from the project site as vehicles bound for different destinations disperse.

Projected congestion levels could be somewhat less if measures to enhance transit service and encourage the use of alternate means of transportation are successful. Similarly, congestion levels in the area could be somewhat greater if the capacity of street segments is reduced or if the rate at which vehicles can enter the freeway is reduced.

No mitigation is available for the above-described significant impacts beyond Measures M-TR-1a and M-TR-1b, discussed above. However, those measures would not reduce the cumulative impacts to a less-than-significant level at the intersections of Howard and Third Streets, Howard and New Montgomery Streets, Folsom and Second Streets, and Harrison and Second Streets.

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### ***Transit***

#### **Impact TR-3: Transit ridership generated by the proposed project would not result in unacceptable levels of transit service, or cause a substantial increase in delays or operating costs. (Less than Significant)**

The project would generate approximately 510 net new p.m. peak-hour transit trips. Of these trips, about 300 would be on Muni, and would be dispersed over the 17 Muni routes (local and express buses, streetcar and Metro trains) that serve the project area. Project transit ridership would incrementally increase p.m. peak-period capacity utilization<sup>59</sup> on the four Muni screenlines (which are imaginary cordon lines drawn around the greater downtown area for purposes of analyzing Muni ridership by corridor). All Muni screenlines currently operate better than Muni's service standard of 85 percent capacity utilization,<sup>60</sup> although the Metro corridors (Southwest screenline), and Other Lines (Southeast screenline) currently exceed the standard. However, the increase in ridership due to the project would be no more than 1 percentage point on any corridor, and would not be significant, inasmuch as the increased ridership would be dispersed over dozens of Muni vehicles and would not result in exceedances of Muni capacity. The project would be subject to the Transit Impact Development Fee, which is a one-time fee assessed against downtown office projects to offset increased capital costs to Muni to provide additional capacity to serve the increased demand from new development.

Project ridership on regional carriers would total about 200 (some riders would also take Muni), with about 40 percent traveling to the East Bay on BART, and another 20 percent on AC Transit; most of the rest would travel to the Peninsula on BART. Project transit trips would increase East Bay BART and AC Transit p.m. peak-period capacity utilization by less than 1 percentage point, and would not measurably

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<sup>59</sup> Capacity utilization is the aggregate number of passengers divided by the aggregate design capacity of the transit vehicles, and may include varying numbers of standees, depending on the transit carrier.

<sup>60</sup> Muni's service standard is based on differing capacities of its fleet's various sizes of buses and rail vehicles.



## E. TRANSPORTATION AND CIRCULATION

This section summarizes and incorporates the results of the *Transportation Impact Study* (TIS) prepared by the transportation subconsultant for the proposed project (included in this EIR as Appendix E).<sup>1</sup> The TIS describes existing and future 2030 transportation conditions (roadway traffic, transit, pedestrian access, bicycle access, loading, and parking) in the vicinity of the proposed project and evaluates its environmental effects. The following transportation scenarios were examined: existing, existing plus the proposed project, and cumulative conditions in 2030.

### SETTING

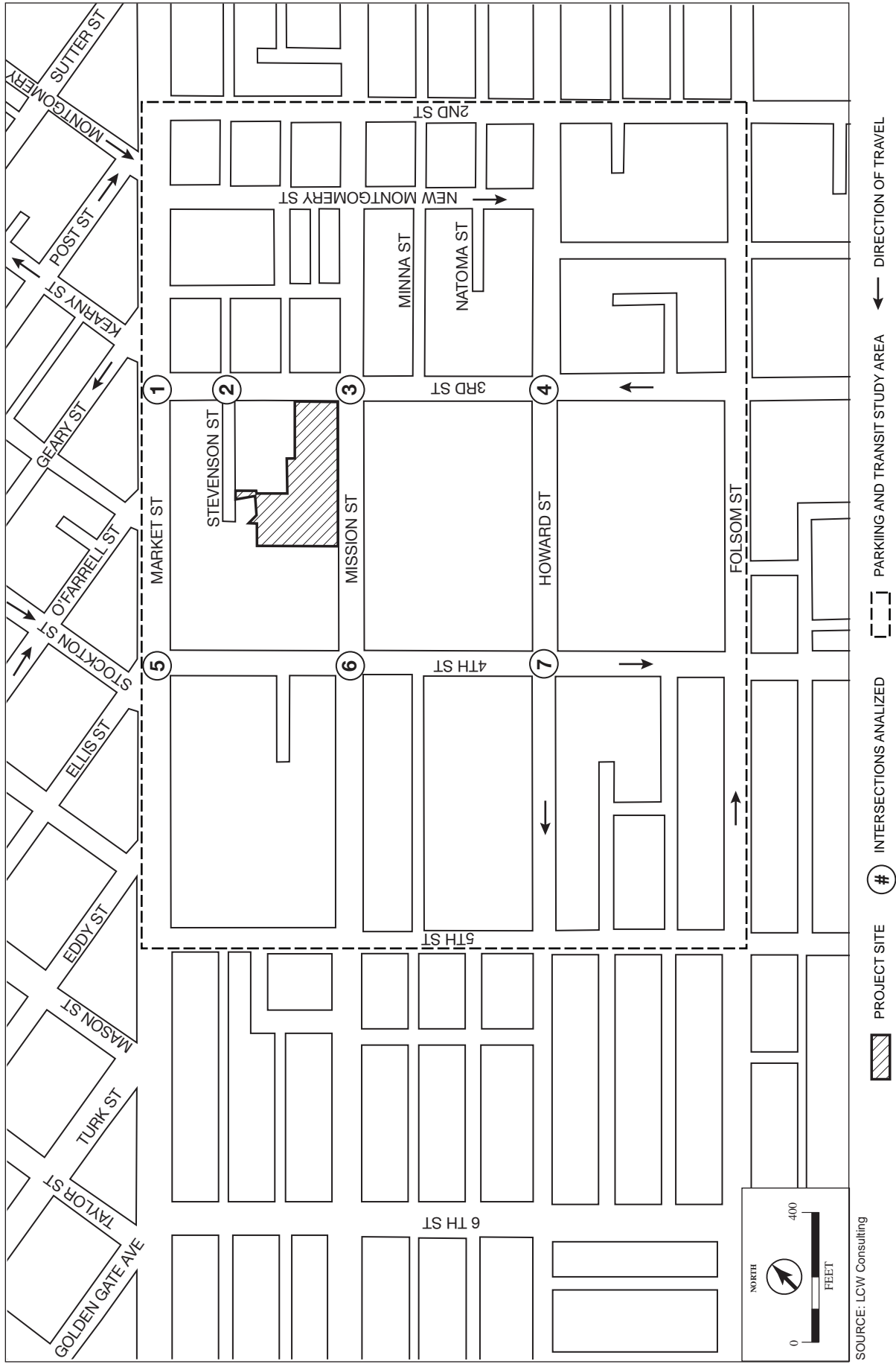
The transportation study area for the proposed project is the area bounded by Market Street, Second Street, Folsom Street, and Fifth Street. The proposed project would include the conveyance of the existing subsurface Jessie Square Garage from the San Francisco Municipal Transportation Agency (SFMTA) to the project sponsor and the conversion of the garage from a publicly owned garage to a privately owned garage. The basement mezzanine and upper basement levels would remain open to the public. On the mezzanine level of the existing garage, there is an existing space underneath the Contemporary Jewish Museum that is currently blocked off from the rest of the garage. As part of the proposed project, this existing space would be connected to the rest of the garage by removal of a wall and would be striped to accommodate about 38 parking spaces. Ten existing parking spaces on various levels of the garage would need to be removed for vehicular access and circulation. As a result, there would be a net increase of 28 parking spaces, and the total number of parking spaces in the garage would increase from 442 to 470. The proposed project also would use Jessie Square Garage for access to the proposed on-site loading areas.

Currently, there are two curb cuts on the existing project site: one on Third Street, which provides access to the existing loading area in the Aronson Building, and one on Mission Street, which provides an exit for the Jessie Square Garage. The current entrance for the Jessie Square Garage is on Stevenson Street. Egress from the garage is available from either Stevenson Street or Mission Street. See Figure II.32: Vehicular Access – Proposed Project, in Chapter II, Project Description, p. II.65.

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<sup>1</sup> LCW Consulting, *706 Mission Street Transportation Study, 2008.1084E, Final Report* (hereinafter referred to as “TIS”), January 24, 2012. This document is included in this EIR as Appendix E and is also available for review at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, California, as part of Case File No. 2008.1084E.





706 MISSION STREET

FIGURE IV.E.1: TRANSPORTATION STUDY AREA AND INTERSECTIONS ANALYZED



**Table IV.E.1: Intersection Levels of Service, Existing (Weekday PM Peak Hour)**

<b>Intersection<sup>a,b</sup></b>	<b>Delay<sup>c</sup></b>	<b>Level of Service</b>	<b>Volume / Capacity<sup>d</sup></b>
<b>1. Third / Market</b>	56.2	<b>E</b>	0.79
2. Third / Stevenson	12.1	B	
3. Third / Mission	20.1	C	
4. Third / Howard	36.1	D	
<b>5. Fourth / Market</b>	>80	<b>F</b>	1.08
6. Fourth / Mission	41.8	D	
7. Fourth /Howard	42.5	D	

*Notes:*

> means greater than

<sup>a</sup> Intersections are numbered to key with Figure IV.E.1 on p. IV.E.5.

<sup>b</sup> Intersections operating at LOS E and F are shown in **bold**.

<sup>c</sup> Delay is presented in seconds per vehicle.

<sup>d</sup> Volume to Capacity ratio presented for signalized intersections operating at LOS F.

*Source:* LCW Consulting, January 2012

which is further away than typical placement, and this placement may contribute to pedestrians not noticing the “Don’t Walk” signal.

## **Transit**

The project site is well-served by public transit, with both local and regional service provided nearby. Local service is provided by the Muni bus lines, which can be used to access regional transit. Service to and from the East Bay is provided by BART, AC Transit, and ferries; service to and from the North Bay is provided by Golden Gate Transit buses and ferries; service to and from the Peninsula and South Bay is provided by Caltrain, SamTrans, and BART. Figure IV.E.2: Existing Transit Network Near Proposed Project, presents the transit routes and local bus stop locations in the vicinity of the proposed project.

### Muni

Muni provides transit service within the City and County of San Francisco, including bus (both diesel and electric trolley), light rail (Muni Metro), cable car, and electric streetcar lines. Muni operates a number of bus lines in the vicinity of the proposed project. Immediately adjacent to the project site, on Mission and Third Streets, Muni operates frequent bus service, including electric and diesel, standard and articulated vehicles. On Third Street, a transit-only lane is provided on the east curb lane, across from the project site. Muni uses the west-side travel lanes for non-revenue turnbacks of Market Street buses (i.e., buses do not pick up passengers), including the 5 Fulton, 6 Parnassus, 9 San Bruno, 21 Hayes, and 31 Balboa. Two sets of electric trolley wires, in the east and west curb lanes, are provided for electric buses. On Mission Street, Muni operates the various 14 Mission lines.



**Table IV.E.15: Intersection Levels of Service, Existing and Existing Plus Project**

Intersection	Existing		Existing Plus Project	
	Delay <sup>a</sup> (v/c)	LOS	Delay <sup>a</sup> (v/c)	LOS
<b>Third / Market</b>	<b>56.2</b>	<b>E</b>	<b>63.2</b>	<b>E</b>
Third / Stevenson	12.1	B	12.7	B
Third / Mission	20.1	C	20.9	C
Third / Howard	36.1	D	40.4	D
<b>Fourth / Market</b>	<b>&gt;80 (1.1)</b>	<b>F</b>	<b>&gt;80 (1.1)</b>	<b>F</b>
Fourth / Mission	41.8	D	45.6	D
Fourth / Howard	42.5	D	44.5	D

Notes: > means greater than

<sup>a</sup> Delay presented in seconds per vehicle. Intersections operating at LOS E or LOS F are in **bold**. The volume to capacity ratio is presented for those intersections operating at LOS F.

Source: LCW Consulting, January 2012

The addition of 149 project-generated vehicle trips would result in small increases in the average delay per vehicle at the study intersections and all study intersections would continue to operate at the same LOS as under existing conditions. The intersection of Third and Market Streets would continue to operate at LOS E, and the intersection of Fourth/Market Streets would continue to operate at LOS F. The contribution of the proposed project to the critical movements that operate poorly was reviewed to determine if the contribution would be significant.

At the Third and Market Streets intersection, the proposed project would add 34 vehicle trips during the PM peak hour to the northbound movement, which represents 1.8 percent of the total PM peak hour northbound approach volume of 1,939 vehicles. Thus, the project contribution to this approach would not be considerable, and therefore the contribution to the overall intersection LOS E conditions would not be considered significant.

At the Fourth and Market Streets intersection, the proposed project would add 31 vehicle trips during the PM peak hour. At this intersection, the southbound movement currently operates at LOS F conditions. The project would add 12 vehicle trips to the southbound movement, which represent less than 1 percent of the PM peak hour southbound volume of 1,302 vehicles. The project contribution to this approach would not be considerable, and therefore the contribution to the overall intersection LOS F conditions would not be considered significant.

Project-generated vehicle traffic would not cause any intersection LOS to deteriorate from LOS D or better to LOS E or F or from LOS E to F, and would not represent a considerable contribution to the Existing plus Project intersection conditions for intersections already operating at LOS E or F, and therefore the proposed project would result in less-than-significant traffic impacts at these intersections, and impacts on traffic overall would be less than significant. No mitigation is necessary.





# SAN FRANCISCO PLANNING DEPARTMENT

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## Preliminary Mitigated Negative Declaration

*Date:* May 13, 2015  
*Case No.:* **2014.0198E**  
*Project Title:* **850 Bryant Street – Hall of Justice  
Rehabilitation and Detention Facility Project**  
*Zoning:* Western SoMa Special Use District  
Public Use (P) Zoning District  
105-J Height and Bulk District  
Service/Arts/Light Industrial (SALI) Zoning District  
30-X Height and Bulk District  
*Block/Lot:* 3759/009 through 012, 014, 043, 045, a portion of 042, and Harriet Street and  
Ahern Way street rights-of way  
*Lot Size:* 40,276 square feet  
*Project Sponsor* Jumoke Akin-Taylor  
San Francisco Department of Public Works  
Building, Design and Construction, Project Management  
(415) 557-4751  
Dan Santizo  
City and County of San Francisco Sheriff's Department  
Sheriff's Bureau of Building Services  
(415) 522-8123  
*Lead Agency:* San Francisco Planning Department  
*Staff Contact:* Christopher Espiritu - (415) 575-9022  
[christopher.espiritu@sfgov.org](mailto:christopher.espiritu@sfgov.org)

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**415.558.6378**

Fax:  
**415.558.6409**

Planning  
Information:  
**415.558.6377**

### PROJECT DESCRIPTION:

The site for the proposed Hall of Justice (HOJ) Rehabilitation and Detention Facility (RDF) project is located in San Francisco's South of Market neighborhood, at the intersection of Bryant and Sixth streets, and consists of eight parcels: Assessor's Block 3759, Lots 9 through 12, 14, 43, 45, a portion of Lot 42, and portions of the Harriet Street and Ahern Way rights-of-way. The western portion of the project site (the HOJ site), located at 850 Bryant Street, contains the existing eight-story, 117-foot-tall (105 feet to the rooftop plus an additional 12-foot-tall mechanical penthouse), 610,000-gsf HOJ, constructed between 1958 and 1961. The existing HOJ serves as one of the primary County Jail Facilities for the San Francisco Sheriff's Department. County Jails No. 3 (CJ#3) and No. 4 (CJ#4) are located on the 6<sup>th</sup> and 7<sup>th</sup> floors of the existing HOJ. Other uses within the existing HOJ include the justice center for the San Francisco County Superior Court, the Chief Medical Examiner and morgue, and the current operational headquarters for the San Francisco Police Department. County Jails No. 3 (CJ#3) and No. 4 (CJ#4) are located on the 6<sup>th</sup> and 7<sup>th</sup> floors of the existing HOJ. Directly east of the HOJ site is the project building site, which is bounded by Ahern Way to the north, Sixth Street to the east, Bryant Street to the south, and Harriet Street to the west. The 40,276-sf project building site contains two vacant lots, areas of surface parking, and five existing buildings: a one-story, 6,000-gsf office building, constructed in 1956 (444 Sixth Street); a one-story, 5,100-gsf commercial building, constructed in 1959 (450 Sixth Street); a three-story, 7,150-gsf,



involve the installation of structures that could interfere with air space. Therefore, Topic E.4(c) is not applicable to the proposed project.

## SETTING

Transportation conditions were evaluated for a study area generally bounded by Harrison Street to the north, Sixth Street to the east, Bryant Street to the south, and Seventh Street to the west (see **Figure 15: Transportation Study Area**). In the South of Market area, streets that run in the northwest/southeast direction are considered north-south streets (e.g., Sixth Street), whereas streets that run in the southwest/northeast direction are considered east-west streets (e.g., Bryant Street).

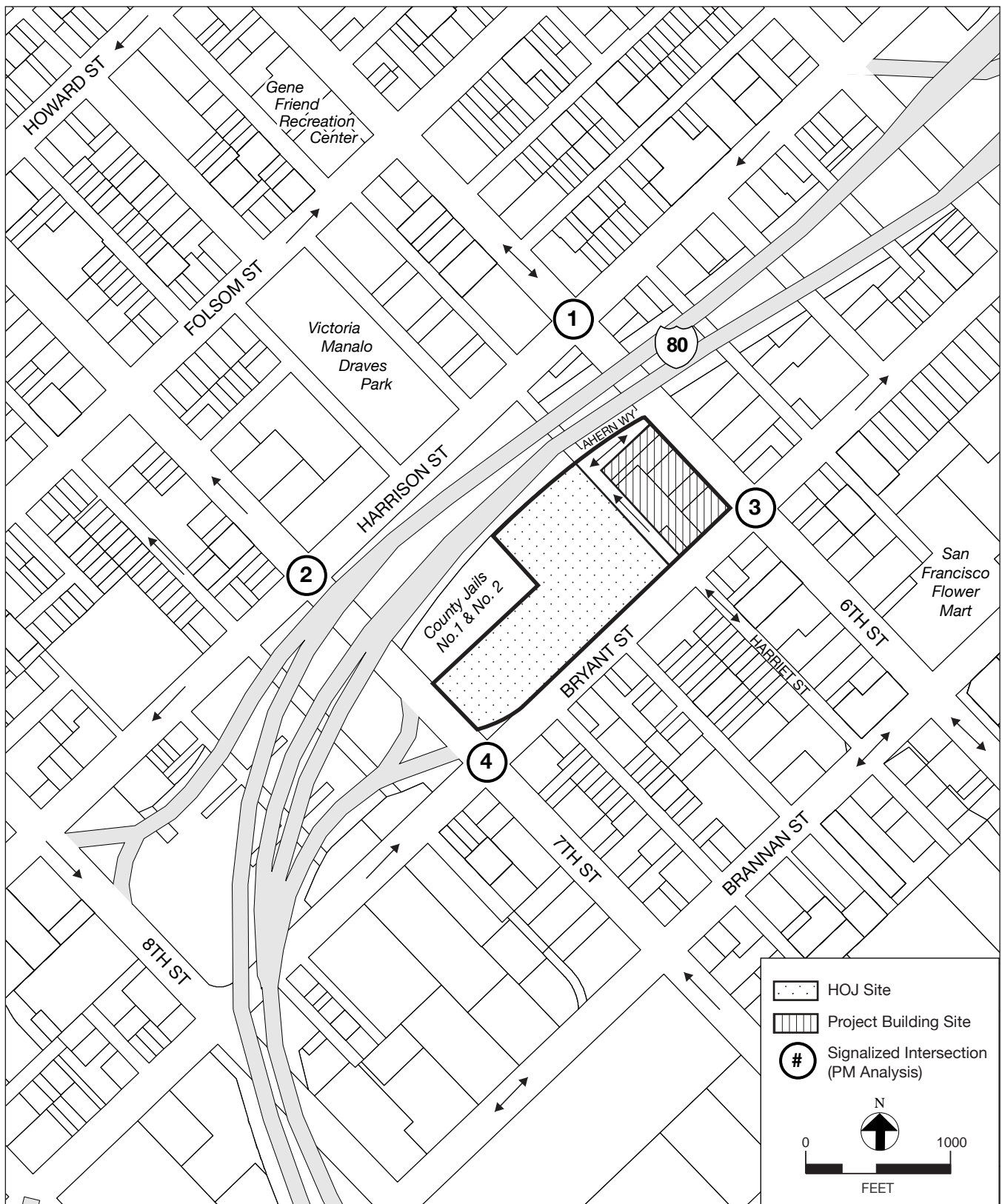
### Traffic Conditions

The project site is generally bounded by Sixth, Bryant and Seventh streets and the I-80 freeway structure. The project building site is located on the block bounded by Sixth, Bryant and Harriet streets, and Ahern Way immediately south of the I-80 freeway. Local vehicular access to and from the project building site is provided primarily via Bryant and Sixth streets. Sixth Street has two travel lanes in each direction, while Bryant Street has four eastbound travel lanes. Harriet Street is one-way northbound, with two travel lanes between Bryant Street and Ahern Way, adjacent to the project building site. Most other streets in the project vicinity, including Ahern Way, have one travel lane in each direction. The intersections of Sixth Street/Ahern Way and Harriet Street/Ahern Way are stop-controlled on the minor approach of Ahern Way eastbound and Harriet Street northbound.

Regional access to the project site is provided by U.S. 101 and I-280. U.S. 101 connects to I-80, which connects San Francisco to the East Bay and other locations east via the San Francisco-Oakland Bay Bridge. U.S. 101 and I-280 serve San Francisco and the South Bay, and U.S. 101 provides access north via the Golden Gate Bridge. Access from I-80 eastbound is via the off-ramp at Bryant/Seventh streets, and access to I-80 eastbound is via the on-ramp at Bryant/Eighth streets. Access from I-80 westbound is via the off-ramp at Harrison/Eighth streets, and access to I-80 westbound is via the on-ramp at Harrison/Seventh. The closest access to I-280 is provided via on- and off-ramps at the intersection of Sixth/Brannan streets.

**Harrison Street** runs in the east-west direction between The Embarcadero and 13<sup>th</sup>/Division streets, operating one-way westbound between Third and Tenth streets. Harrison Street runs in the north-south direction between 13<sup>th</sup>/Division and Norwich streets. In the downtown area, Harrison Street is a primary route to the I-80 freeway, with on-ramps at the First Street and Essex Street intersections, and to U.S. 101 southbound, with an on-ramp at Fourth Street and another at Seventh Street. In the *San Francisco General Plan*, it is a designated Major Arterial in the Congestion Management Network (between The Embarcadero and Division Street), a Primary Transit





SOURCE: LCW Consulting

# **HALL OF JUSTICE REHABILITATION AND DETENTION FACILITY**

Case No. 2014.0198E

**FIGURE 15: TRANSPORTATION STUDY AREA AND STUDY INTERSECTIONS**



**Table 1: Intersection LOS – Existing Conditions - Weekday P.M. Peak Hour**

Intersection	Average Vehicle Delay <sup>a</sup>	LOS
1. Harrison Street/Sixth Street <sup>b</sup>	31.6	C
2. Harrison Street/Seventh Street <sup>c</sup>	30.2	C
3. Bryant Street/Sixth Street <sup>b</sup>	>80	F
4. Bryant Street/Seventh Street <sup>c</sup>	18.7	B

*Notes:*  
<sup>a</sup> Delay is presented in seconds per vehicle.  
<sup>b</sup> Traffic counts conducted in September 2012.  
<sup>c</sup> Traffic counts conducted in September 2009.

*Source:* LCW Consulting (LOS analysis taken from Central SoMa Plan Transportation Impact Study, October 2014).

Intersection turning movement volume counts at the unsignalized intersections of Sixth Street/Ahern Way, Harriet Street/Bryant Street, and Harriet Street/Harrison Street were conducted on Wednesday, February 11, 2015 during the weekday p.m. peak period to estimate vehicle trips on Harriet Street and Ahern Way. During the weekday p.m. peak hour, there are about 50 vehicles traveling on Harriet Street between Bryant Street and Ahern Way, and about 40 vehicles on Ahern Way between Sixth and Harriet streets (i.e., about 30 eastbound and 10 westbound vehicles). There are about 80 vehicles exiting Harriet Street at Harrison Street during the weekday p.m. peak hour.<sup>42</sup> As noted above, both Harriet Street and Ahern Way provide access to the ambulance loading area for the Office of the Chief Medical Examiner; the below-grade parking in the existing HOJ; the surface parking lots under the I-80 structure reserved for HOJ, Sheriff's Department, and SFPD use; and to on-street parking spaces that are generally occupied by marked and unmarked official City vehicles. Thus, the majority of vehicles on these streets are related to existing HOJ activities. While not observed during field surveys, some vehicles, such as the SFPD police cars that double park on Bryant Street in front of the HOJ, may use Harriet Street to travel between Bryant and Harrison streets.

### Transit Conditions

The project site is well served by public transit. Local service is provided by the San Francisco Municipal Railway (Muni) bus routes, which can be used to transfer to other bus lines, cable car lines, the F Market & Wharves historic streetcar line, and Muni Metro light rail lines. Service to and from the East Bay is provided by Bay Area Rapid Transit (BART) along Market and Mission streets, and AC Transit buses from the Transbay Terminal. Service to and from the North Bay is provided by Golden Gate Transit along Van Ness Avenue and at the Transbay Terminal, and ferry service from the Ferry Building. Service to and from the Peninsula and South Bay is provided by Caltrain at its terminal located at Fourth and Townsend streets, and by the San Mateo County Transit District (SamTrans) at the Transbay Terminal.

<sup>42</sup> Ibid.



**Table 6: Intersection LOS – Existing and 2040 Cumulative Conditions - Weekday P.M. Peak Hour**

Intersection		Existing Conditions		2040 Cumulative Conditions	
		Average Vehicle Delay <sup>a</sup>	LOS	Average Vehicle Delay <sup>a</sup>	LOS
1.	Harrison Street/Sixth Street <sup>b</sup>	31.6	C	<b>66.5</b>	<b>E</b>
2.	Harrison Street/Seventh Street <sup>c</sup>	30.2	C	<b>67.1</b>	<b>E</b>
3.	Bryant Street/Sixth Street <sup>b</sup>	<b>&gt;80</b>	<b>F</b>	<b>&gt;80</b>	<b>F</b>
4.	Bryant Street/Seventh Street <sup>c</sup>	18.7	B	39.5	D

Notes:

<sup>a</sup> Delay is presented in seconds per vehicle.

<sup>b</sup> Traffic counts conducted in September 2012.

<sup>c</sup> Traffic counts conducted in September 2009.

Source: LCW Consulting (LOS analysis taken from Central SoMa Plan Transportation Impact Study, October 2014).

would be closed to through traffic in both directions, and only HOJ and RDF-related official service vehicles, scheduled delivery and service vehicles, and emergency response vehicles would be allowed access. Non-HOJ related drivers on the portions of Harriet Street and Ahern Way that would be restricted would need to divert to other streets. Given the limited amount of traffic that utilizes Ahern Way and Harriet Street, this level of traffic diversion to other nearby streets would not substantially affect cumulative traffic conditions in the project vicinity.

For the above reasons, the proposed project, in combination with past, present and reasonably foreseeable development in San Francisco, would result in less-than-significant cumulative traffic impacts and no mitigation is necessary.

### ***Cumulative Transit Impacts***

**Impact C-TR-2: The proposed project in combination with past, present and reasonably foreseeable development would not contribute to significant cumulative transit impacts on local or regional transit capacity. (*Less than Significant*)**

Future year 2040 Cumulative transit conditions were utilized to assess the cumulative effects of a proposed project and other development that would occur through the year 2040. Consistent with San Francisco Planning Department guidance the impact assessment is conducted for the San Francisco downtown and regional screenlines.<sup>58</sup> The 2040 Cumulative transit screenline analysis accounts for ridership and/or capacity changes associated with the TEP and the Central Subway Project (which is scheduled to open in 2019), among other transit projects. The 2040 Cumulative transit screenlines were developed in coordination with SFMTA based on the SFCTA travel demand model analysis. Forecasted future hourly ridership demand was then compared to expected hourly capacity, as determined by the likely route and headway changes identified in the TEP to estimate capacity utilization under 2040 Cumulative conditions. As noted above, the year 2040

<sup>58</sup> Planning Department Transportation Team, *Regional & Local 2014 Cumulative Transit Screenlines for Transportation Impact Studies*, Memo to Planning Department Transportation Consultants, March 10, 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.0198E.



## CHAPTER 4 Environmental Setting and Impacts

### 4.0 INTRODUCTION TO THE ANALYSIS

Chapter 4 contains a discussion of the possible direct and indirect environmental effects of the proposed Academy of Art University (AAU) Project (Proposed Project). This chapter is the primary component of the environmental impact report (EIR), as it provides information on the existing conditions in the City of San Francisco, the type and magnitude of the Proposed Project's potential individual and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid such impacts.

#### 4.0.1 Scope of the EIR

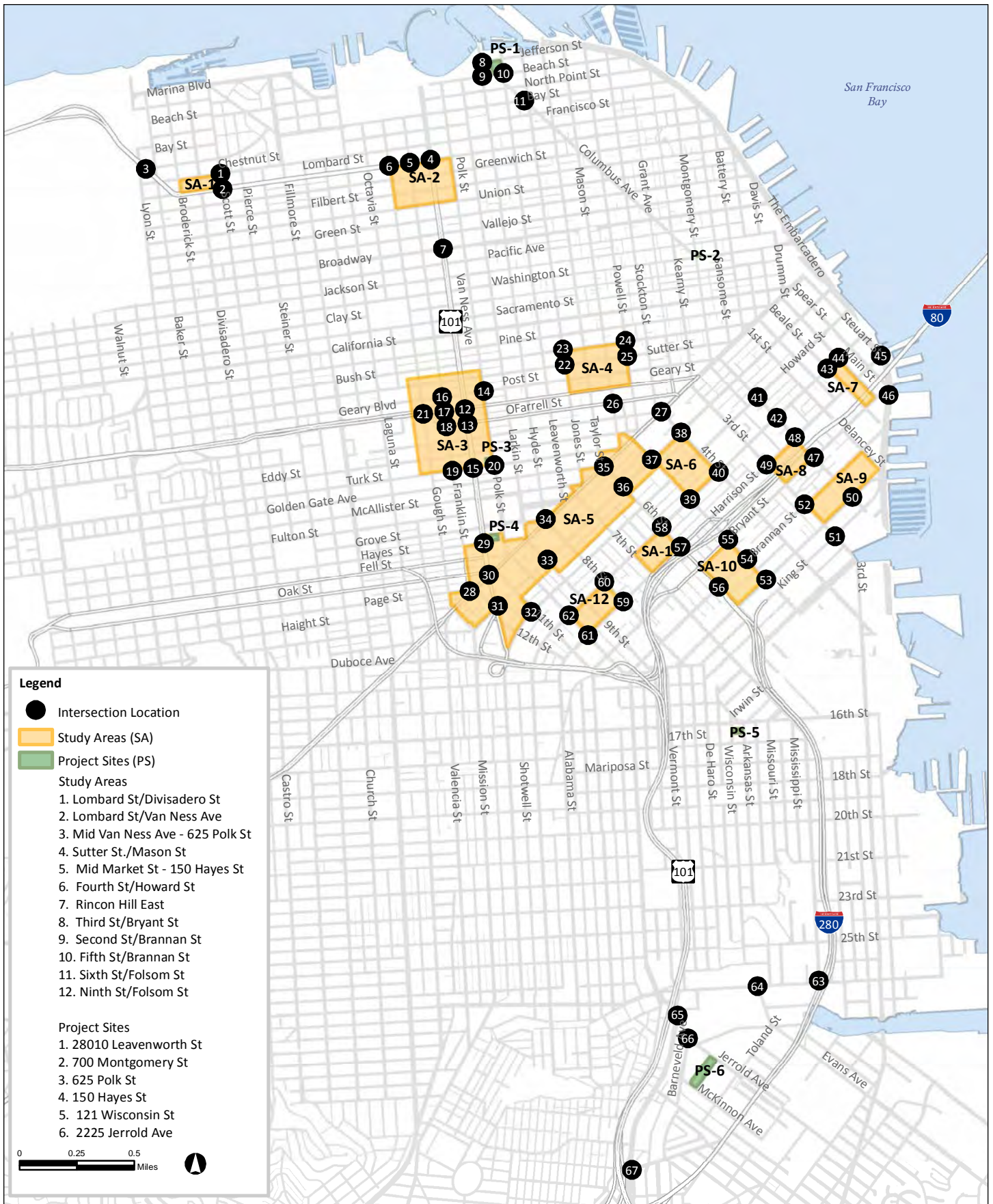
##### ■ CEQA Methodological Requirements

CEQA Guidelines Section 15151 describes standards for the preparation of an adequate EIR. Specifically, the standards under Section 15151 are listed below.

- An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information that enables them to make a decision that intelligently takes into account environmental consequences
- An evaluation of the environmental impacts of a project need not be exhaustive; rather, the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible
- Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts

In practice, the above points indicate that EIR preparers should adopt a reasonable methodology upon which to estimate impacts. This approach means making reasonable assumptions using the best information available. In some cases, typically when information is limited or where there are possible variations in project characteristics, EIR preparers will employ a "reasonable worst-case analysis" in order to capture the largest expected potential change from existing baseline conditions that may result from implementation of a project.





SOURCE: AAU, 2012; Atkins, 2013.

ACADEMY OF ART UNIVERSITY EIR  
**FIGURE 4.6-2: PROJECT STUDY INTERSECTIONS**



**Table 4.6-1 Existing Intersection Levels of Service**

Study Area/Project Site	Intersection Number	Intersection Location	AM Peak Hour		PM Peak Hour	
			Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
SA-1, Lombard St/Divisadero St	1	Scott St / Chestnut St <sup>b</sup>	—	—	NB/EB-11.0	B
	2	Scott St / Lombard St	—	—	11.5	B
	3	Richardson St / Francisco St	—	—	17.4	B
SA-2, Lombard St/Van Ness Ave	4	Van Ness Ave / Lombard St	19.0	B	22.4	C
	5	Franklin St / Lombard St	—	—	22.0	C
	6	Gough St / Lombard St	—	—	8.3	A
	7	Broadway / Van Ness Ave	20.9	C	24.2	C
PS-1, 2801 Leavenworth St (The Cannery)	8	Hyde St/ Jefferson St <sup>b</sup>	—	—	WB-9.3	A
	9	Hyde St/ Beach St	—	—	12.1	B
	10	Leavenworth St/ Beach St <sup>b</sup>	—	—	EB/WB-7.8	A
	11	Bay St/ Columbus Ave	—	—	22.4	C
SA- 3, Mid Van Ness Ave; PS-3, 625 Polk St	12	Van Ness Ave / Geary Blvd	20.1	C	20.7	C
	13	Van Ness Ave / O'Farrell St	20.0	C	21.7	C
	14	Post St / Polk St	—	—	12.4	B
	15	Van Ness Ave / Turk St	16.4	B	19.0	B
	16	Franklin St / Post St	—	—	11.7	B
	17	Franklin St / Geary Blvd	—	—	18.1	B
	18	Franklin St / O'Farrell St	—	—	22.5	C
	19	Franklin St / Turk St	—	—	18.4	B
	20	Polk St / Turk St	—	—	18.4	B
	21	Gough St/ Geary Blvd	24.7	C	21.7	C
SA-4, Sutter St/Mason St	22	Jones St / Sutter St	—	—	12.4	B
	23	Jones St / Bush St	—	—	10.9	B
	24	Powell St / Bush St	—	—	10.9	B
	25	Powell St / Sutter St	—	—	12.0	B
	26	O'Farrell St / Mason St	—	—	14.0	B
	27	Stockton St / Ellis St / Market St/ Fourth St	—	—	17.6	B



**Table 4.6-1 Existing Intersection Levels of Service**

Study Area/Project Site	Intersection Number	Intersection Location	AM Peak Hour		PM Peak Hour	
			Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
SA-5, Mid-Market St; PS-4, 150 Hayes St	28	Franklin St / Market St	—	—	28.1	C
	29	Van Ness Ave / Hayes St	21.8	C	23.8	C
	30	Van Ness Ave / Market St	30.4	C	39.7	D
	31	S. Van Ness Ave / Mission St	—	—	40.2	D
	32	11th St / Howard St	—	—	21.8	C
	33	Ninth St / Mission St	—	—	12.3	B
	34	Eighth St / Market St	—	—	26.3	C
	35	Sixth St / Market St	—	—	20.1	C
	36	Sixth St / Mission St	—	—	25.9	C
	37	Fifth St / Mission St	—	—	16.4	B
SA-6, Fourth St/Howard St	38	Fourth St / Mission St	—	—	14.1	B
	39	Fifth St / Folsom St	—	—	15.7	B
	40	Fourth St / Folsom St	—	—	32.8	C
	See 37	Fifth St / Mission St	—	—	16.4	B
SA-8, Third St/Bryant St <sup>a</sup>	41	Second St/Howard St	—	—	12.0	B
	42	Second St/Folsom St	—	—	15.7	B
SA-7, Rincon Hill East	43	Folsom St / Beale St	—	—	13.7	B
	44	Folsom St / Main St	—	—	11.1	B
	45	Embarcadero / Harrison St	—	—	14.6	B
	46	Bryant St / The Embarcadero	—	—	21.7	C
SA-8, Third St/Bryant St	47	Second St / Bryant St	—	—	11.2	B
	48	Second St / Harrison St	—	—	13.4	B
	49	Third St / Harrison St	—	—	15.9	B
SA-9, Second St/Brannan St	50	Second St / Townsend St	—	—	13.6	B
	51	Third St / King St	—	—	34.4	C
	52	Third St / Brannan St	—	—	16.8	B
SA-10, Fifth St/Brannan St	53	Fifth St / Townsend St <sup>b</sup>	—	—	WB-24.0	C
	54	Fifth St / Brannan St	—	—	20.6	C
	55	Fifth St / Bryant St	—	—	<b>64.3</b>	<b>E</b>
	56	Sixth St / Brannan St	—	—	36.2	D
SA-11, Sixth St/Folsom St	57	Sixth St / Harrison St	—	—	12.5	B
	58	Sixth St / Folsom St	—	—	17.7	B



**Table 4.6-1 Existing Intersection Levels of Service**

Study Area/Project Site	Intersection Number	Intersection Location	AM Peak Hour		PM Peak Hour	
			Average Delay (seconds)	LOS	Average Delay (seconds)	LOS
SA-12, Ninth St/Folsom St	59	Eighth St / Harrison St	—	—	21.6	C
	60	Eighth St / Folsom St	—	—	14.5	B
	61	10th St / Harrison St	—	—	18.9	B
	62	10th St / Folsom St	—	—	17.4	B
PS-6, 2225 Jerrold Ave	63	Pennsylvania Ave / Cesar Chavez St / I-280 NB Off-Ramp	—	—	42.1	D
	64	Cesar Chavez St / Evans Ave	—	—	20.2	C
	65	Jerrold Ave / Barneveld Ave <sup>b</sup>	—	—	WB-18.7	C
	66	Bayshore Blvd / Jerrold Ave	—	—	30.5	C
	67	Industrial St / Bayshore Blvd	—	—	36.8	D

SOURCE: Atkins (2014).

- Intersections #41 and #42 are included because an area near Second St/Howard St was under consideration at one time but is no longer part of the Proposed Project. These intersection analyses were retained because AAU growth in SA-8 would contribute vehicle trips to these intersections.
- For unsignalized intersections the LOS is reported for highest-delay approach and that movement (for example WB = westbound) is noted. For signalized intersections LOS E or LOS F are reported in **bold**.

## Overview of Conditions at Project Sites

**PS-1, 2801 Leavenworth Street (The Cannery):** PS-1 consists of The Cannery building at 2801 Leavenworth Street. PS-1 is bordered by Leavenworth Street to the east, Jefferson Street to the north, Hyde Street to the west, and Beach Street to the south. No vehicle access or driveways are located on The Cannery building site. In the vicinity of the project site, Leavenworth Street has one travel lane in each direction with metered parking on both sides of the street; and Jefferson Street has two westbound travel lanes with metered parking on both sides of the street. As detailed in the *Fisherman's Wharf Public Realm Plan*, 2010, proposed enhancements to the Jefferson Street corridor (between Powell Street and Hyde Street) include a contra-flow bike lane, on-street loading pockets for passenger and freight loading, and conversion of the semi-exclusive streetcar transit lane to a fully exclusive transit lane.

**PS-2, 700 Montgomery Street:** PS-2 is bordered by Washington Street to the south, Montgomery Street to the west, Jackson Street to the north, and Hotaling Place to the east. No vehicle access or driveways are located at the project site. In the vicinity of the project site, Montgomery Street has one travel lane in each direction and metered and unmetered parking on both sides of the street; and, Washington Street has three westbound travel lanes and metered parking on both sides of the street.

**PS-3, 625 Polk Street:** PS-3 is bordered by Turk Street to the south, Eddy Street to the north, Van Ness Avenue to the west, and Polk Street to the east. No vehicle access or driveways are located at the project site. In the project vicinity, Polk Street has one travel lane in each direction with metered



**Table 4.6-28 Cumulative (2035) and Cumulative plus Project LOS E or LOS F AM and PM Peak Hour Intersections**

Study Area/ Project Site	Intersection		Cumulative (2035)		Cumulative plus Project Option 1 – SA-10/SA-11 Sub option	
	#	Location	LOS	Average Delay (seconds) <sup>a</sup>	LOS	Average Delay (seconds) <sup>a</sup>
<b>AM Peak Hour</b>						
SA-2, Lombard St/Van Ness Ave (Program Level)	7	Broadway St/Van Ness Ave	F	>80 (1.41)	F	>80 (1.41)
SA-5, Mid-Market St/ PS-4, 150 Hayes St (Program/Project Level)	29	Van Ness Ave/Hayes St	E	65.2	E	67.4
	30	Van Ness Ave/Market St	F	>80 (1.47)	F	>80 (1.47)
<b>PM Peak Hour</b>						
SA-5, Mid-Market St/ PS-4, 150 Hayes St (Program/Project Level)	30	Van Ness Ave/Market St	F	>80 (1.27)	F	>80(1.27)
	31	S. Van Ness Ave/Mission St	F	>80 (1.10)	F	>80 (1.10)
	34	Eighth St/Market St	E	70.8	E	72.7
	35	Sixth St/Market St	F	>80 (0.91)	F	>80 (0.91)
	36	Sixth St/Mission St	E	71.2	E	72.8
SA-8, Third St/Bryant St (Program Level) <sup>b</sup>	42	Second St/Folsom St	E	55.4	E	60.4
SA-9, Second St/Brannan St (Program Level)	51	Third St/King St	F	>80 (1.30)	F	>80 (1.31)
SA-10, Fifth St/Brannan St (Program Level)	55	Fifth St/Bryant St	F	>80 (1.54)	F	>80 (1.54)
	56	Sixth St/Brannan St	F	>80 (1.15)	F	>80 (1.16)
SA-11, Sixth St/Folsom St (Program Level)	58	Sixth St/Folsom St	E	63.6	E	69.2
SA-12, Ninth St/Folsom St (Program Level) PS-6, 2225 Jerrold Ave (Project Level)	63	Pennsylvania Ave/Cesar Chavez St/I-280 NB Off-Ramp	F	>80 (1.26)	F	>80 (1.27)
	64	Cesar Chavez St/Evans Ave	F	>80 (1.53)	F	>80 (1.53)
	65*	Jerrold Ave/Barneveld Ave	F	WB>50	F	WB>50
	67	Industrial St/Bayshore Blvd	F	>80 (1.56)	F	>80 (1.56)

SOURCE: Atkins, 2014

**Bold** indicates that the intersection would operate at unacceptable LOS conditions (LOS E or F).

\* For the unsignalized intersection, WB>50 stands for worst approach (i.e., LOS for unsignalized intersections is based on the worst approach LOS).

a. Volume-to-Capacity (V/C) ratio presented for signalized intersections operating at LOS F.

b. This intersection is located adjacent to SA-8, but not located within the study area. However, the intersection is described as under SA-8 for purposes of the traffic analysis and to characterize traffic conditions in and adjacent to SA-8.



**Table 4.6-29 Cumulative (2035) AM & PM Peak Hour Project Trip Contributions to LOS E and LOS F Intersections**

Intersection		Critical Movement Volumes		
#	Location	Critical Movement <sup>a</sup>	Project Trips	% Change
AM Peak Hour				
7	Broadway St/Van Ness Ave	SBL	18	2.04%
		EBT	1	0.13%
29	Van Ness Ave/Hayes St	NBT	11	0.66%
		WBT	5	0.13%
30	Van Ness Ave/Market St	NBT	10	0.41%
		EBT	0	0%
PM Peak Hour				
30	Van Ness Ave/Market St	NBT	3	0.18%
		WBT	0	0%
31	S Van Ness Ave/Mission St	SBT	5	0.50%
		WBL	0	0%
34	Eighth St/Market St	SBR	0	0%
35	Sixth St/Market St	NBT	3	0.18%
36	Sixth St/Mission St	NBT	3	0.23%
42	Second St/Folsom St	EBR	5	1.68%
51	Third St/King St	NBT	0	0%
		EBL	0	0%
		WBT	22	1.72%
55	Fifth St/Bryant St	EBT	0	0%
56	Sixth St/Brannan St	NBR	10	1.25%
		EBT	4	0.76%
58	Sixth St/Folsom St	EBT	46	2.15%
63	Pennsylvania Ave/Cesar Chavez St/I-280 NB Off-Ramp	NBL	0	0%
		EBL	0	0%
64	Cesar Chavez St/Evans Ave	NBL	0	0%
		WBL	5	0.65%
65	Jerrold Ave/Barneveld Ave	WB Approach	29	4.45%
67	Industrial St/Bayshore Blvd	NBL	0	0%
		SBR	0	0%
		EBL	1	0.36%
		WBT	8	0.54%

SOURCE: CHS Consulting Group and Atkins, *Academy of Art University Transportation Impact Study*, Planning Department Case No. 2008.0586E (February 2014).

Cumulative plus Project LOS results are presented for Option 1 – SA-10/SA-11 Sub option.

a. LOS E or F Critical Movements are abbreviated (e.g., NBT = Northbound Through, WBL = Westbound Left, SBR = Southbound Right)





# SAN FRANCISCO PLANNING DEPARTMENT

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## Addendum to Environmental Impact Report

*Addendum Date:* September 26, 2012  
*Case No.:* **2011.1381E**  
*Project Title:* Art & Design Educational Special Use District (1111 8th Street)  
*EIR:* Eastern Neighborhoods Rezoning and Area Plans Final EIR  
SCL No. 1984061912, certified August 7, 2008  
*Zoning:* PDR-1-D; 58-X Height and Bulk District  
*Block/Lots:* 3808/004, 3820/002, 3820/003, 3913/002, 3913/003  
*Lot Size:* varies  
*Project Sponsor:* Supervisor Malia Cohen, District 10  
*Sponsor Contact:* Andrea Bruss, Legislative Aide, 415.554.7670  
*Lead Agency:* San Francisco Planning Department  
*Staff Contact:* Michael Jacinto – 415.575.9033  
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The purpose of this Addendum to the Eastern Neighborhoods Rezoning and Area Plans Final EIR is to substantiate the Planning Department's determination that no supplemental environmental review is required for the proposed "Art and Design Special Use District" legislation (Board of Supervisors File No. 111278) because the environmental effects of implementation of this legislation have been adequately analyzed pursuant to the California Environmental Quality Act ("CEQA") in a Final Environmental Impact Report ("FEIR") previously prepared for the Eastern Neighborhoods Rezoning and Area Plans project. This memorandum describes the proposed legislation's relationship to the Eastern Neighborhoods Rezoning and Area Plans FEIR and Showplace Square/Potrero Hill Area Plan, analyzes the proposed legislation in the context of the previous environmental review, and summarizes the potential environmental effects that may occur as a result of implementing the legislation.

### PROPOSED LEGISLATION

The project is proposed legislation that would amend the San Francisco Planning Code by adding Section 249.66 to create the Art and Design Special Use District ("SUD"). The SUD would apply to five lots on three blocks in the Showplace Square/Potrero Hill area of San Francisco. The amendment would facilitate continued operation of the California College of the Arts ("CCA") and provide a regulatory scheme for a potential future expansion of the campus, including permitting student housing which would be limited to 750 beds on any parcel within the SUD boundaries. The proposed ordinance would also amend the San Francisco Planning Code Sectional Map SU08 of the City and County's Zoning Map to reflect the creation of the Art and Design Special Use District. The legislation further stipulates that for any potential housing project within the SUD, standards for development, project review, entitlement process, and impact fees of the Urban Mixed Use ("UMU") district would apply.<sup>1</sup>

### PROJECT DESCRIPTION

#### *Background*

The Eastern Neighborhoods Rezoning and Area Plans Project was adopted in December 2008. The Project was adopted in part to support housing development in some areas previously zoned for industrial uses,

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<sup>1</sup> See Planning Code Section 843 et seq. for more information.



In the cumulative context, the Final EIR found that adoption of the preferred Eastern Neighborhoods use districts and zoning controls would result in a significant, adverse impact in the cumulative supply of land for PDR uses and would not be mitigable without substantial change in use controls on land under Port of San Francisco jurisdiction. The finding was based on supply, demand and land use projections prepared for the Eastern Neighborhoods Final EIR.<sup>10</sup>

The FEIR found that industrially-zoned land and PDR building space is expected to decrease over the foreseeable future. The use districts and zoning controls adopted as part of the Eastern Neighborhoods Rezoning and Area Plans project are expected to accommodate housing and primarily management, information, and professional service land uses within the area over time. While the SUD would apply to CCA's parcels, including the 101,705-square-foot vacant parcel where design-related PDR uses are permitted, potential increases in cultural, institutional and educational space of upwards of 225,000 to 260,000 square feet within the neighborhood were forecasted and envisioned as part of the local planning process. Additionally, upwards of 2,600 housing units are anticipated within the Plan area through the year 2025. Permitting student housing within the CCA SUD would address residential demands generated by the institution as well as represent a portion of the areawide forecasted demand for this type of land use.

Because the type of housing that may be permitted is limited to student housing and because the geography of the SUD is confined to those parcels under control of and related to the California College of the Arts and not the surrounding PDR-1-D district at large, implementation of the SUD would not contribute in a considerable manner to the adverse, cumulative land use impact associated with the adoption of area-wide rezoning. The cumulative land use effect of the proposed SUD would be therefore less than considerable.

## *Transportation*

### Traffic

The FEIR included a level of service analysis at 40 study intersections within the plan area. Within Showplace Square/Potrero Hill, the FEIR included 15 study intersections and found significant, adverse impacts would occur at the following intersections: Seventh/Harrison, 13th/Bryant, 13th/Folsom, South Van Ness/Howard/13th, Seventh/Brannan, Seventh/Townsend, Eighth/Bryant, Eighth/Harrison, Third/César Chávez, Third/Evans, and César Chávez/Evans. With the exception of the intersections of DeHaro/Division/King, Rhode Island/16th, and Rhode Island/Division Streets, the FEIR identified no feasible measures associated with the above intersection impacts to mitigate them to less-than-significant levels. Other mitigation cited in the FEIR could include implementation of Intelligent Traffic Management Systems ("ITMS") strategies, improvement and enhancement of streets, promotion of alternate means of travel, and parking management to discourage driving.

Implementation of the proposed SUD legislation would not directly generate new person or automobile trips. Subsequent development projects proposed within the context of the SUD would be reviewed at a project-level to determine trip generation, assignment and mode split in order to determine the potential for future projects to result in operational impacts on signalized intersections or cause major traffic hazards or contribute considerably to cumulative traffic increases that would cause deterioration in levels of service to unacceptable levels.

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<sup>10</sup> *Eastern Neighborhoods Rezoning and Area Plans Final EIR*, p. 77. This document is available for review in Case File No. 2011.1381E at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA.





# DRAFT ENVIRONMENTAL IMPACT REPORT

## Moscone Center Expansion Project

PLANNING DEPARTMENT  
CASE NO. **2013.0154E**  
STATE CLEARINGHOUSE NO. 2014012050



SAN FRANCISCO  
**PLANNING**  
DEPARTMENT

Draft EIR Publication Date:	APRIL 30, 2014
Draft EIR Public Hearing Date:	JUNE 5, 2014
Draft EIR Public Comment Period:	MAY 1, 2014, THROUGH JUNE 16, 2014

*Written comments should be sent to:*

Sarah B. Jones, Environmental Review Officer  
1650 Mission Street, Suite 400 | San Francisco, CA 94103

ENVIRONMENTAL PLANNING | SAN FRANCISCO PLANNING DEPARTMENT



## IV.A Transportation and Circulation

This section analyzes the potential project-level and cumulative impacts on transportation and circulation resulting from implementation of the Moscone Center Expansion Project. Transportation-related issues of concern that are addressed include traffic on local and regional roadways, transit, bicycles, pedestrians, parking, loading, and construction-related activities. This section provides an overview of existing transportation conditions, a description of applicable transportation regulations and policies, methodologies and assumptions used in the impact analysis, and impact assessment and mitigation measures. This section is based on information and analysis contained in the Moscone Center Expansion Project Transportation Impact Study (TIS).<sup>1</sup>

### Environmental Setting

The transportation study area for the proposed project is bounded by Market Street to the north, Fifth Street to the west, Bryant Street to the south, and New Montgomery/Hawthorne Street to the east. A total of 24 intersections within the transportation study area (see **Figure IV.A-1**, p. IV.A-2) were identified as the intersections most likely to be affected by the proposed project. All of the study intersections are signalized. No freeway segments were analyzed because the proposed project would not measurably affect the operation of the freeway system.

The transportation setting within the study area is presented first, and is followed by a description of transportation operations at the Moscone Center.

### Regional and Local Roadways

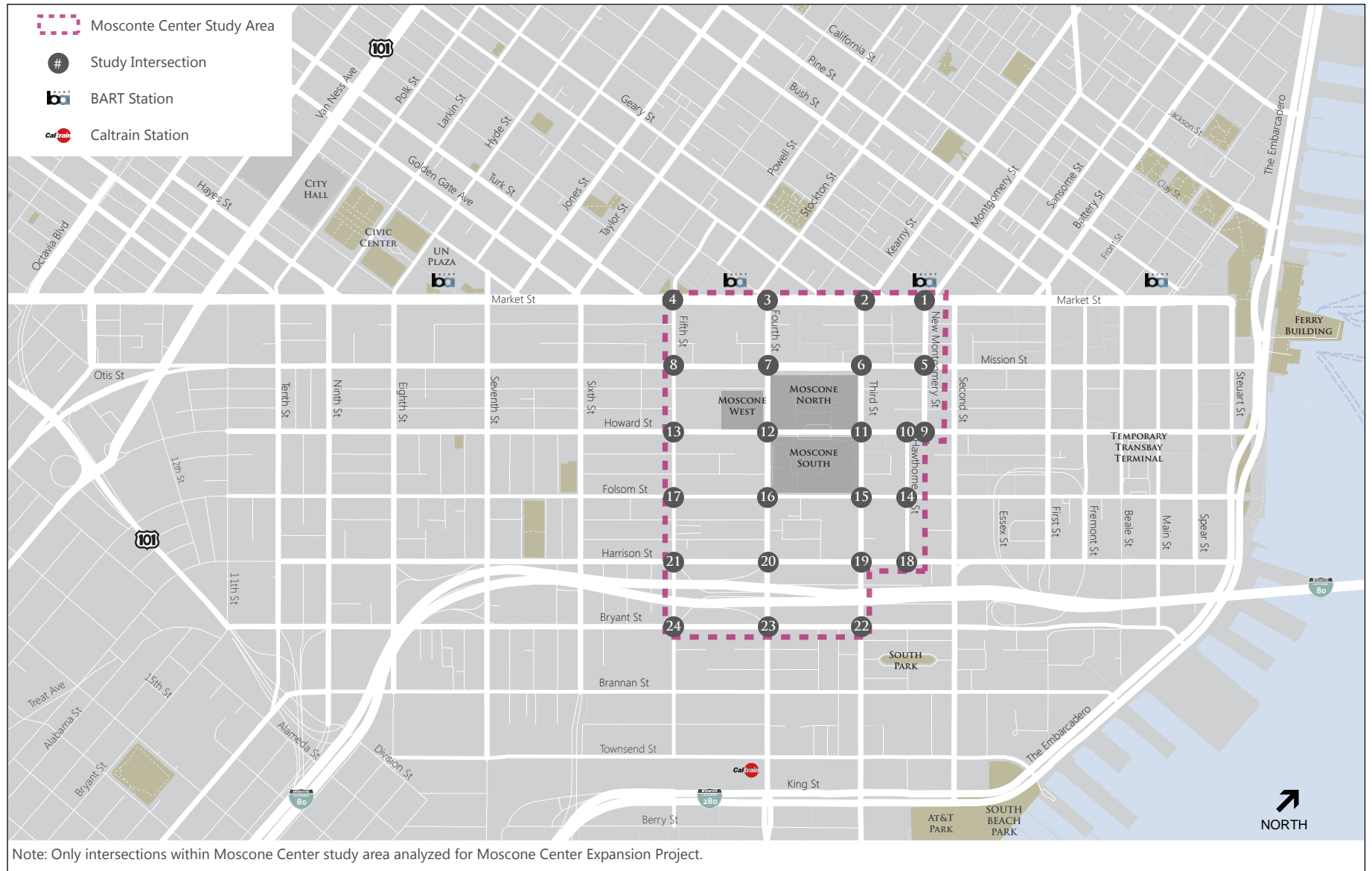
#### *Regional Access*

**Interstate 80 (I-80)** provides the primary regional access to the proposed project site. Interstate 80 runs through the southern portion of the study area and connects San Francisco to the East Bay and other points east via the San Francisco-Oakland Bay Bridge. There are two sets of on-ramps and off-ramps in the study area (at Fifth Street and at Fourth Street) that provide access to and from eastbound and westbound I-80. Within the study area, I-80 has eight lanes (four in each direction).

**U.S. Highway 101 (U.S. 101)** provides access to the north and south of the study area. Interstate 80 joins U.S. 101 to the southwest of the study area and provides access to the Peninsula and South Bay. U.S. 101 connects San Francisco and the North Bay via the Golden Gate Bridge. There is no direct access to U.S. 101 within the study area. Within the northern part of San Francisco, U.S. 101 operates on surface streets (i.e., Van Ness Avenue and Lombard Street). Van Ness Avenue and Lombard Street are part of the Citywide Pedestrian Network outlined in the Transportation Element of the *San Francisco General Plan*.

<sup>1</sup> Advant Consulting, Fehr & Peers and LCW Consulting, *Moscone Center Expansion Project Transportation Impact Study*, April 2014. A copy of this document is available for review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, as part of Case File No. 2013.0154E.





SOURCE: LCW Consulting, Fehr & Peers, 2014

Moscone Center Expansion Project 2013.0154E

**Figure IV.A-1**  
Study Intersections



**TABLE IV.A-15**  
**INTERSECTION LEVEL OF SERVICE – WEEKDAY P.M. PEAK HOUR**  
**EXISTING, EXISTING PLUS PROJECT, AND 2040 CUMULATIVE CONDITIONS**

Intersection	Existing <sup>1</sup>		Existing plus Project		2040 Cumulative	
	Average Delay <sup>2</sup>	LOS <sup>3</sup>	Average Delay <sup>2</sup>	LOS <sup>3</sup>	Average Delay <sup>2</sup>	LOS <sup>3</sup>
1. Market St/N. Montgomery St	<b>66.8</b>	E	<b>66.8</b>	E	> 80 (1.09)	F
2. Market St/Third St	44.1	D	46.2	D	> 80 (0.88)	F
3. Market St/Fourth St	<b>57.7</b>	E	<b>58.0</b>	E	> 80 (0.92)	F
4. Market St/Fifth St	<b>59.3</b>	E	<b>60.0</b>	E	> 80 (0.89)	F
5. Mission St/N. Montgomery St	<b>70.7</b>	E	<b>70.9</b>	E	> 80 (1.78)	F
6. Mission St/Third St	<b>71.9</b>	E	<b>74.9</b>	E	> 80 (> 2)	F
7. Mission St/Fourth St	32.6	C	34.4	C	> 80 (1.39)	F
8. Mission St/Fifth St	15.4	B	15.5	B	30.6	C
9. Howard St/N. Montgomery St	47.5	D	47.5	D	<b>58.6</b>	E
10. Howard St/Hawthorne St	21.2	C	21.2	C	38.2	D
11. Howard St/Third St	>80 (1.29)	F	>80 (1.31)	F	> 80 (1.89)	F
12. Howard St/Fourth St	<b>65.7</b>	E	<b>69.5</b>	E	> 80 (>2)	F
13. Howard St/Fifth St	15.6	B	15.8	B	> 80 (1.59)	F
14. Folsom St/ Hawthorne St	<b>78.4</b>	E	<b>79.2</b>	E	> 80 (> 2)	F
15. Folsom St/Third St	>80 (1.22)	F	>80 (1.22)	F	> 80 (> 2)	F
16. Folsom St/Fourth St	>80 (1.11)	F	>80 (1.12)	F	> 80 (> 2)	F
17. Folsom St/Fifth St	28.6	C	28.8	C	> 80 (1.78)	F
18. Harrison St/Hawthorne St	48.2	D	48.2	D	> 80 (1.49)	F
19. Harrison St/Third St	28.5	C	28.5	C	> 80 (> 2)	F
20. Harrison St/Fourth St	42.0	D	43.1	D	> 80 (1.76)	F
21. Harrison St/Fifth St	<b>60.4</b>	E	<b>60.7</b>	E	>80 (1.37)	F
22. Bryant St/Third St	52.0	D	52.1	D	> 80 (> 2)	F
23. Bryant St/Fourth St	27.7	C	27.7	C	> 80 (0.76)	F
24. Bryant St/Fifth St	>80 (1.26)	F	>80 (1.26)	F	> 80 (1.76)	F

## NOTES:

<sup>1</sup> Existing conditions reflect an 85th percentile Moscone event design day of 22,000 attendees per day.<sup>2</sup> Average delay reported as seconds per vehicle.<sup>3</sup> Intersections operating at LOS E or LOS F conditions are highlighted in **bold**. The volume-to-capacity (v/c) ratio provided in parentheses for intersections operating at LOS F conditions.

SOURCE: Moscone Center Expansion Project Transportation Impact Study, April 2014.





# **DRAFT ENVIRONMENTAL IMPACT REPORT**

## San Francisco 2004 and 2009 Housing Element

Volume I: Draft EIR (Section I to Section V.G)

PLANNING DEPARTMENT  
CASE NO. **2007.1275E**

STATE CLEARINGHOUSE NO. 2008102033



**SAN FRANCISCO  
PLANNING  
DEPARTMENT**

Draft EIR Publication Date:	<b>June 30, 2010</b>
Draft EIR Public Hearing Date:	<b>August 5, 2010</b>
Draft EIR Public Comment Period:	<b>June 30, 2010 – August 16, 2010</b>

*Written comments should be sent to:*

Environmental Review Officer | 1650 Mission Street, Suite 400 | San Francisco, CA 94103  
10759



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## V. ENVIRONMENTAL SETTING AND IMPACTS

### F. TRANSPORTATION AND CIRCULATION

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#### INTRODUCTION

This section addresses the potential impacts of the 2004 Housing Element and 2009 Housing Element related to the circulation system, congestion management system, air traffic patterns, the adequacy of emergency access, the adequacy of parking capacity, and potential conflicts with adopted policies and programs that support alternative transportation. The Planning Department prepared a transportation study, consistent with the Department's *Transportation Impact Analysis Guidelines for Environmental Review (SF Guidelines)*, to identify the impacts of the proposed Housing Elements on the transportation and circulation system, which serves as the data source for this section unless otherwise noted.<sup>1</sup>

Existing transit conditions are described in terms of available routes, transit ridership and capacity at the screenlines for San Francisco Municipal Railway (Muni) and regional transit carriers. A public transit screenline analysis was performed on key Muni routes and regional transit carriers under the study scenarios. Existing pedestrian and bicycle conditions are described qualitatively. Existing parking conditions in the city are also described qualitatively, with emphasis on the Residential Parking Permit program and its locations. The existing traffic conditions were evaluated at 60 study intersections during the p.m. peak period for a typical weekday. The peak period analyzed was between 4:00 p.m. and 6:00 p.m., which is generally the period of peak demand on the transportation network. The study intersections were identified by the Planning Department as the intersections citywide that experience the most congestion or represent the constraints on the transportation network.

#### ENVIRONMENTAL SETTING

The transportation study area is defined as the entirety of the City and County of San Francisco and is depicted in Figure IV-1 (Section IV. Project Description). The following section describes the existing transportation network.

##### Existing Roadway Network

The following describes of the existing transportation network, including descriptions of the existing roadway and transit network, parking, pedestrian, and bicycle conditions. Descriptions of the roadway system serving the project site use the classifications from the Transportation Element of the San Francisco General Plan. The Transportation Element of the General Plan classifies roadways within the City as Freeways, Major Arterials, Transit Conflict Streets, Secondary Arterials, Recreational Streets, Collector Streets, and Local Streets. It also identifies Transit Preferential Streets, which include Primary

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<sup>1</sup> *San Francisco General Plan Housing Element Final Transportation Impact Study* (hereinafter referred to TIS), TJKM Transportation Consultants, June 18, 2010. (See Appendix F).





# SAN FRANCISCO PLANNING DEPARTMENT

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## Second Street Improvement Project Draft Supplemental Environmental Impact Report

### Supplement to the San Francisco Bicycle Plan Environmental Impact Report

## Appendices



City and County of San Francisco Planning Department  
Case No. 2007.0347E  
State Clearinghouse No. 2008032052

Draft Supplemental EIR Publication Date: February 11, 2015  
Draft Supplemental EIR Public Hearing Date: March 19, 2015  
Draft Supplemental EIR Public Review Period: February 12, 2015 – March 30, 2015

*Written comments should be sent to:*

Sarah B. Jones, Environmental Review Officer  
San Francisco Planning Department  
1650 Mission Street, Suite 400  
San Francisco, CA 94103  
or  
[sarah.b.jones@sfgov.org](mailto:sarah.b.jones@sfgov.org)



## 1.0 SETTING

This section describes the existing street network and traffic, transit, pedestrian, bicycle, loading, and parking conditions in project study area, which is generally bounded by Market Street to the north, First Street to the east, King Street to the south, and Third Street to the west. Portions of Fifth and Bryant Streets, near the Interstate 80 ramps are also included in the study area.

The majority of traffic, transit, pedestrian, bicycle, emergency vehicle access, loading, and parking data presented herein was provided by San Francisco Planning Department, San Francisco Municipal Transportation Authority (SFMTA) and from relevant past and concurrent projects within the project study area. Additional data collection for project analysis was conducted in September 2013 by CHS Consulting Group and included traffic counts at five study area intersections. CHS also conducted field observations of vehicular queuing patterns, and conflicts among automobiles, bikes, pedestrians, and Muni buses in the vicinity of the proposed project.

### 2.1 Roadway Network

This section presents a discussion of existing roadway systems in the vicinity of the proposed project, including roadway designation, number of lanes, and traffic flow directions. The functional designation of these roadways was obtained from the *San Francisco General Plan*.<sup>11</sup> Detailed definitions of the *San Francisco General Plan*'s roadway classification schemes are included in **Appendix C**. It should be noted that as described in Section 1.1, the existing street layout of Second Street would be reconfigured as part of the proposed project.

#### 2.1.1 Regional Access

This study area is served by three freeways: Interstate 80 (I-80), Interstate 280 (I-280) and U.S. Highway 101. These facilities are described below.

**Interstate 80 (I-80)** provides the primary regional access to the project area. In the project vicinity this freeway is between Harrison and Bryant Streets. The San Francisco-Oakland Bay Bridge is part of I-80, connecting San Francisco to the East Bay. Between the East Bay and the project site, the primary access points are via the I-80 westbound off-ramp at Fremont and Harrison Streets and the eastbound on-ramp at Essex, Sterling and First Streets.

**Interstate 280 (I-280)** provides regional access to and from the South Bay. I-280 terminates at three blocks from the study area, at Fifth Street and the traffic merges with King Street traffic. I-280 also has nearby on- and off-ramps at Sixth Street, and Brannan Street intersection. I-280 connects to U.S. 101 approximately four miles south of the Study Area. I-280 and U.S. 101 continue as parallel freeways southbound along the Peninsula before reconnecting in San Jose.

**U.S. Highway 101 (U.S. 101)** provides regional access to both the north and south of San Francisco. I-80 joins U.S. 101 to the southwest of the project area and provides access to the South Bay and the Peninsula. U.S. 101 connects San Francisco to the North Bay via Van Ness Avenue, Lombard Street, and the Golden Gate Bridge. Access to and from U.S. 101 southbound includes the on- and off-ramps at Seventh/Harrison and Seventh/Bryant Streets, as well as at the intersections of Tenth/Bryant and Ninth/Bryant Street, respectively.

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<sup>11</sup> *San Francisco General Plan*, Transportation Element, July 1995. Available online at [http://www.sf-planning.org/ftp/General\\_Plan/14\\_Transportation.htm](http://www.sf-planning.org/ftp/General_Plan/14_Transportation.htm). Accessed April 14, 2014.







Figure 2  
Study Intersections





# DRAFT ENVIRONMENTAL IMPACT REPORT

## San Francisco Museum of Modern Art Expansion / Fire Station Relocation and Housing Project

PLANNING DEPARTMENT  
CASE NOS. 2009.0291E and 2010.0275E

STATE CLEARINGHOUSE NO. 2010102047



SAN FRANCISCO  
**PLANNING  
DEPARTMENT**

Draft EIR Publication Date:	JULY 11, 2011
Draft EIR Public Hearing Date:	AUGUST 11, 2011
Draft EIR Public Comment Period:	JULY 11, 2011 - AUGUST 25, 2011

*Written comments should be sent to:*

Environmental Review Officer | 1650 Mission Street, Suite 400 | San Francisco, CA 94103



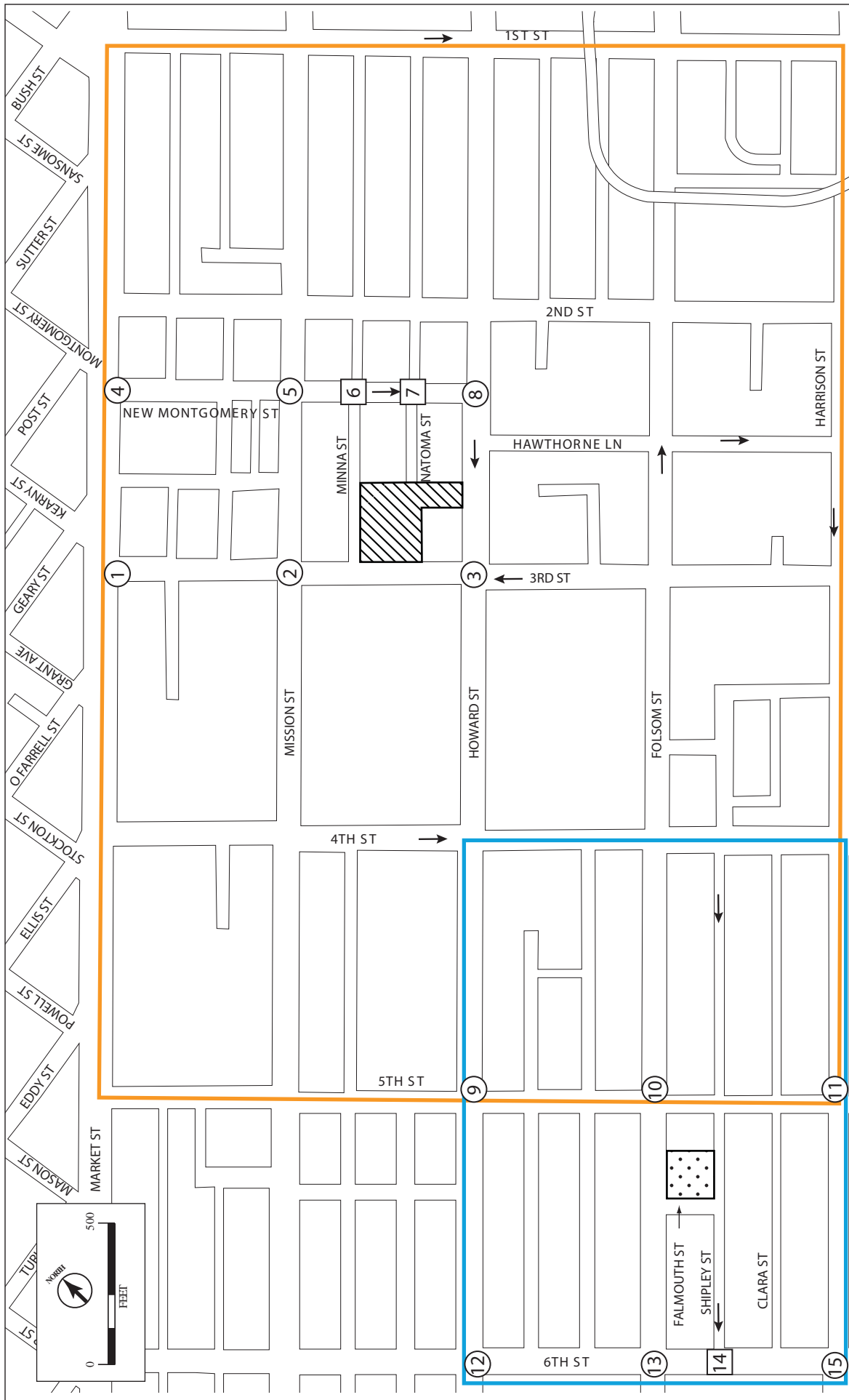


FIGURE IV.D-1

① SIGNALIZED STUDY INTERSECTION

← DIRECTION OF TRAVEL

② UNSIGNALIZED STUDY INTERSECTION

▨ SFMOMA EXPANSION SITE

⋯ FIRE STATION RELOCATION + HOUSING PROJECT SITE

— SFMOMA EXPANSION TRANSIT + PARKING STUDY AREA

— FIRE STATION RELOCATION TRANSIT + PARKING STUDY AREA

*SFMOMA Expansion and Fire Station Relocation and Housing Project EIR Study Area and Analysis Locations*

SOURCES: LCW CONSULTING, 2011.



# 255 SEVENTH STREET (WESTBROOK PLAZA) PROJECT

## Draft Environmental Impact Report

Planning Department Case No. 2004.0588E

State Clearinghouse No. 2006092050

Draft EIR Publication Date: February 24, 2007

Draft EIR Public Hearing Date: April 5, 2007

Draft EIR Public Comment Period: February 24, 2007 until April 9, 2007





during the PM peak hour; 217 daily walking trips of which 33 would be during the PM peak hour; and 27 other daily trips of which five (5) would be during the PM peak hour.

TABLE 3 – TOTAL DAILY AND PM PEAK HOUR TRIPS								
	Residential		South of Market Health Center				Total	
			Patients		Employees			
	Daily	PM Peak Hour	Daily	PM Peak Hour	Daily	PM Peak Hour	Daily	PM Peak Hour
Vehicle	128	22	16	1	31	3	175	26
Transit	121	21	30	3	20	2	171	26
Walk	168	29	46	4	3	0	217	33
Other	27	5	-	-	-	-	27	5

Source: South of Market Health Center, *SMHC Transportation and Trend Data*, November 2005; San Francisco Planning Department, November 2005.

## Traffic Impacts

The project site is located at 255 Seventh Street between Howard and Folsom Streets. Within the project site vicinity, Seventh Street is a one-way Major Arterial with four travel lanes in the northbound direction.<sup>24</sup> On-street parking is generally provided along both sides of the street with a bicycle lane, and metered parking is provided adjacent to the project site. Seventh Street is part of the #23 bike lane.<sup>25</sup> Howard Street is a one-way arterial with four travel lanes in the westbound direction and a bicycle lane. The *San Francisco General Plan* identifies Howard Street as a Major Arterial in the Congestion Management Program (CMP) Network. Howard Street is part of the #30 bike lane. Within the project site vicinity, Folsom Street is a one-way arterial with four travel lanes and a bicycle lane in the eastbound direction. The *San Francisco General Plan* identifies Folsom Street as a Major Arterial in the CMP Network and it is also part of the #30 bike lane. Moss Street is a one-way street with one lane in the southbound direction. Parking is permitted on the west side of the street only.

As discussed above, the proposed project would generate about 175 daily vehicle trips of which 26 would be during the PM peak hour (see Table 3). The number of vehicles that would be added to the PM peak hour by the proposed project is too low to have a perceptible effect on traffic flows on the street network serving the project area, particularly given the relatively high volume of traffic on Seventh, Howard, and Folsom Streets. The average driver would not discern a change in the level of delay or congestion they currently experience. Traffic impacts associated with the proposed project during the PM peak hour would not be a large enough increase to affect a significant increase relative to the existing capacity of the surrounding street system. Accordingly, the proposed project would result in a less-than-significant traffic impact.

<sup>24</sup> It should be noted that in the South of Market area, streets that run in the northwest/southeast direction are generally considered north-south streets, whereas streets that run in the southwest/northeast direction are generally considered east-west streets.

<sup>25</sup> Department of Parking and Traffic, Map 5: Bicycle Route Network, accessed at [http://www.sfgov.org/site/dpt\\_page.asp?id=13632](http://www.sfgov.org/site/dpt_page.asp?id=13632), November 9, 2005.





# SAN FRANCISCO PLANNING DEPARTMENT

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## Notice of Preparation of an Environmental Impact Report and Notice of a Public Scoping Meeting

1650 Mission St.  
Suite 400  
San Francisco,  
CA 94103-2479

Reception:  
**415.558.6378**

Fax:  
**415.558.6409**

Planning  
Information:  
**415.558.6377**

*Date:* May 6, 2015  
*Case No.:* **2014-001272ENV**  
*Project Title:* **Pier 70 Mixed-Use District Project**  
*Zoning:* M-2 (Heavy Industrial) and P (Public)  
40-X and 65-X Height and Bulk Districts  
*Block/Lot:* Assessor's Block 4052/Lot 001, Block 4111/ Lot 004  
Block 4120/Lot 002, and Block 4110/Lots 001 and 008A  
*Lot Size:* 35 acres (1,524,600 square feet)  
*Project Sponsor:* Port of San Francisco and Forest City Development California, Inc.  
*Lead Agency:* San Francisco Planning Department  
*Staff Contact:* Andrea Contreras – (415) 575-9044  
[andrea.contreras@sfgov.org](mailto:andrea.contreras@sfgov.org)

### PROJECT OVERVIEW

The proposed Pier 70 Mixed-Use District project site is an approximately 35-acre area bounded by Illinois Street to the west, 20<sup>th</sup> Street to the north, San Francisco Bay to the east, and 22<sup>nd</sup> Street to the south. (See Figure 1: Project Location.) The project site is south of Mission Bay South, east of the Potrero Hill and Dogpatch<sup>1</sup> neighborhoods, and within the northeastern portion of San Francisco's Central Waterfront Plan Area. In addition, the majority of the project site is located within the Pier 70 area (Pier 70), which is owned by the City and County of San Francisco through the Port of San Francisco (Port).

Two development areas constitute the project site. The "28-Acre Site" is an approximately 28-acre site located between 20<sup>th</sup> Street, Michigan Street, 22<sup>nd</sup> Street, and San Francisco Bay that includes Assessor's Block 4052/Lot 001 and Block 4111/Lot 004. The "Illinois Parcels" form an approximately 7-acre site that consists of an approximately 3.4-acre Port-owned parcel, called the 20<sup>th</sup>/Illinois Parcel, along Illinois Street at 20<sup>th</sup> Street (Assessor's Block 4110/Lot 001) and an approximately 3.6-acre parcel, called the Hoedown Yard, at Illinois and 22<sup>nd</sup> streets (Assessor's Block 4120/Lot 002 and Block 4110/Lot 008A),

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<sup>1</sup> The Dogpatch neighborhood is bounded by Mariposa Street to the north, I-280 to the west, Cesar Chavez Street to the south, and Illinois Street to the east.





# **DRAFT ENVIRONMENTAL IMPACT REPORT**

## San Francisco 2004 and 2009 Housing Element

Volume I: Draft EIR (Section I to Section V.G)

PLANNING DEPARTMENT  
CASE NO. **2007.1275E**

STATE CLEARINGHOUSE NO. 2008102033



**SAN FRANCISCO  
PLANNING  
DEPARTMENT**

Draft EIR Publication Date:	<b>June 30, 2010</b>
Draft EIR Public Hearing Date:	<b>August 5, 2010</b>
Draft EIR Public Comment Period:	<b>June 30, 2010 – August 16, 2010</b>

*Written comments should be sent to:*

Environmental Review Officer | 1650 Mission Street, Suite 400 | San Francisco, CA 94103  
10769



Table V.F-1

## P.M. Peak Hour Intersection LOS – Existing Conditions and Cumulative (2025) Conditions

ID	Intersection	Existing Conditions			Cumulative (2025) Conditions		
		P.M. Peak			P.M. Peak		
		Delay	LOS	V/C	Delay	LOS	V/C
1	Geary Blvd / 25th Ave	16.0	B		15.9	B	
2	Geary Blvd / Park Presidio Ave	22.9	C		26.8	C	
3	Geary Blvd / Masonic Ave	38.2	D		41.8	D	
4	Geary Blvd / Gough St	22.8	C		38.0	D	
5	Geary Blvd / Franklin St	20.6	C		47.1	D	
6	Geary Blvd / Van Ness Ave	35.9	D		<b>67.2</b>	<b>E</b>	
7	Lombard St / Richardson Ave	45.1	D		<b>61.5</b>	<b>E</b>	
8	Lombard St / Van Ness Ave	22.7	C		23.5	C	
9	Stockton St / Broadway	16.0	B		15.7	B	
10	The Embarcadero / Broadway	53.5	D		<b>&gt;80.0</b>	<b>F</b>	0.768
11	The Embarcadero / Washington St	42.5	D		<b>69.1</b>	<b>E</b>	
12	The Embarcadero / Harrison St	24.2	C		<b>55.0</b>	<b>E</b>	
13	1st St / Market St	<b>67.7</b>	<b>E</b>		<b>&gt;80.0</b>	<b>F</b>	0.750
14	1st St / Mission St	<b>&gt;80.0</b>	<b>F</b>	1.253	<b>&gt;80.0</b>	<b>F</b>	1.307
15	1st St / Harrison St	<b>&gt;80.0</b>	<b>F</b>	1.204	<b>&gt;80.0</b>	<b>F</b>	1.403
16	2nd St / Folsom St	44.7	D		<b>&gt;80.0</b>	<b>F</b>	1.558
17	2nd St / Bryant St	<b>60.3</b>	<b>E</b>		<b>&gt;80.0</b>	<b>F</b>	1.451
18	3rd St / King St	43.7	D		<b>&gt;80.0</b>	<b>F</b>	1.178
19	4th St / King St	35.0	D		<b>57.3</b>	<b>E</b>	
20	4th St / Harrison St	<b>63.2</b>	<b>E</b>		<b>67.4</b>	<b>E</b>	
21	4th St / Bryant St	20.9	C		23.8	C	
22	6th St / Market St	29.1	C		<b>60.2</b>	<b>E</b>	
23	6th St / Mission St	46.0	D		<b>&gt;80.0</b>	<b>F</b>	1.231
24	6th St / Brannan St	<b>&gt;80</b>	<b>F</b>	1.263	<b>&gt;80.0</b>	<b>F</b>	1.418
25	Market St / Van Ness Ave	21.8	C		54.9	D	
26	Mission St / South Van Ness Ave	<b>70.3</b>	<b>E</b>		<b>&gt;80.0</b>	<b>F</b>	0.940
27	10th St / Brannan St / Potrero St / Division St	<b>72.0</b>	<b>E</b>		<b>&gt;80.0</b>	<b>F</b>	1.264
28	9th St / Market St	15.1	B		17.9	B	
29	10th St / Howard St	18.9	B		24.9	C	
30	16th St / Mission St	30.8	C		34.7	C	
31	16th St / Potrero St	19.5	B		<b>&gt;80.0</b>	<b>F</b>	1.722
32	16th St / 3 <sup>rd</sup> St	35.8	D		37.3	D	
33	Market St / Octavia St	41.9	D		<b>&gt;80.0</b>	<b>F</b>	1.273
34	Market St / Guerrero St / Laguna St	40.1	D		45.1	D	



Table V.F-1

**P.M. Peak Hour Intersection LOS – Existing Conditions and Cumulative (2025) Conditions**

ID	Intersection	Existing Conditions			Cumulative (2025) Conditions		
		P.M. Peak			P.M. Peak		
		Delay	LOS	V/C	Delay	LOS	V/C
35	Mission St / Otis St / Division St	<b>65.2</b>	E		<b>70.8</b>	E	
36	Fell St / Divisadero St	20.1	C		25.4	C	
37	15th St / Market St / Sanchez St	47.9	D		<b>56.5</b>	E	
38	Fulton St / Stanyan St	47.8	D		<b>70.3</b>	E	
39	Lincoln Way / 19th Ave	<b>&gt;80</b>	F	1.243	<b>&gt;80.0</b>	F	1.229
40	Taraval St / 19th Ave	18.3	B		21.8	C	
41	Sloat Blvd / 19th Ave	<b>&gt;80</b>	F	1.346	<b>&gt;80.0</b>	F	1.411
42	Winston Dr / 19th Ave	<b>62.7</b>	E		<b>&gt;80.0</b>	F	1.373
43	Junipero Serra Blvd / 19th Ave	<b>75.9</b>	E		<b>&gt;80.0</b>	F	1.269
44	Junipero Serra Blvd / Ocean Ave	40.4	D		<b>59.0</b>	E	
45	Phelan Ave / Ocean Ave / Geneva St	17.6	B		34.7	C	
46	Lake Merced Blvd / Brotherhood Way	49.2	D		<b>&gt;80.0</b>	F	1.158
47	Mission St / Geneva St	28.9	C		33.9	C	
48	Mission St / Silver Ave	15.7	B		20.9	C	
49	Mission Street / Ocean Ave	8.2	A		8.9	A	
50	Sunnydale Ave / Bayshore Blvd	23.6	C		<b>&gt;80.0</b>	F	1.523
51	Gilman St / Paul Ave / 3rd St	23.9	C		33.3	C	
52	Industrial St / Bayshore Blvd / Alemany Blvd	51.2	D		<b>&gt;80.0</b>	F	1.150
53	3rd St / Palou Ave	30.1	C		<b>57.1</b>	E	0.713
54	3rd St / Evans Ave	35.7	D		<b>&gt;80.0</b>	F	1.309
55	3rd St / Cesar Chavez St	27.6	C		<b>&gt;80.0</b>	F	0.951
56	Evans Ave / Cesar Chavez St	47.4	D		<b>&gt;80.0</b>	F	1.365
57	Bryant St / Cesar Chavez St	51.4	D		<b>&gt;80.0</b>	F	1.474
58	Mission St / Cesar Chavez St	27.7	C		<b>64.9</b>	E	
59	Mission St / 24th St	28.0	C		36.3	D	
60	San Jose Ave / Randall St	25.8	C		52.9	D	
<i>Note: Delay = Overall average control delay in seconds per vehicle; V/C = overall volume to capacity ratio;  LOS = overall level of service</i>							

The LOS results for Cumulative 2025 Conditions reveal several traffic operational trends along a number of corridors in San Francisco:

- Existing Embarcadero corridor service levels will deteriorate from acceptable levels under Existing Conditions to unacceptable levels (LOS E/F) under Cumulative 2025 Conditions;





# SAN FRANCISCO PLANNING DEPARTMENT

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## Second Street Improvement Project Draft Supplemental Environmental Impact Report

### Supplement to the San Francisco Bicycle Plan Environmental Impact Report

## Appendices



City and County of San Francisco Planning Department  
Case No. 2007.0347E  
State Clearinghouse No. 2008032052

Draft Supplemental EIR Publication Date: February 11, 2015  
Draft Supplemental EIR Public Hearing Date: March 19, 2015  
Draft Supplemental EIR Public Review Period: February 12, 2015 – March 30, 2015

*Written comments should be sent to:*

Sarah B. Jones, Environmental Review Officer  
San Francisco Planning Department  
1650 Mission Street, Suite 400  
San Francisco, CA 94103  
or  
[sarah.b.jones@sfgov.org](mailto:sarah.b.jones@sfgov.org)



**Table 4 – Intersection Level of Service: Existing Weekday PM Peak Hour**

Intersection	Type <sup>1</sup>	Existing (2013)		
		Delay <sup>2</sup>	V/C <sup>3</sup>	LOS
1 New Montgomery St and Market St	Signal	51.0		D
2 New Montgomery St and Mission St	Signal	<b>61.3</b>	<b>1.04</b>	<b>E</b>
3 New Montgomery St and Howard St	Signal	39.5		D
4 Hawthorne St and Howard St	Signal	19.6		B
5 Hawthorne St and Folsom St	Signal	<b>74.5</b>	<b>1.08</b>	<b>E</b>
6 Hawthorne St and Harrison St	Signal	43.4		D
7 Third St and Bryant St	Signal	41.1		D
8 Third St and Brannan St	Signal	32.0		C
9 Third St and Townsend St	Signal	31.1		C
10 Third St and King St	Signal	<b>&gt; 80</b>	<b>0.97</b>	<b>F</b>
11 Second St and Market St	Signal	10.8		B
12 Second St and Mission St	Signal	15.0		B
13 Second St and Minna St	TWSC	16.5		C (WB)
14 Second St and Howard St	Signal	16.8		B
15 Second St and Folsom St	Signal	<b>64.6</b>	<b>0.94</b>	<b>E</b>
16 Second St and Harrison St	Signal	42.3		D
17 Second St and Bryant St	Signal	<b>&gt; 80</b>	<b>1.30</b>	<b>F</b>
18 Second St and South Park St	TWSC	<b>&gt; 80</b>	<b>N/A</b>	<b>F (EB)</b>
19 Second St and Brannan St	Signal	14.4		B
20 Second St and Townsend St	Signal	14.5		B
21 Second St and King St	Signal	42.9		D
22 Essex St and Folsom	Signal	30.3		C
23 Essex St and Harrison St	Signal	<b>&gt; 80</b>	<b>2.23</b>	<b>F</b>
24 First St and Market St	Signal	14.9		B
25 First St and Mission St	Signal	23.0		C
26 First St and Howard St	Signal	18.3		B
27 First St and Folsom St	Signal	<b>&gt; 80</b>	<b>1.26</b>	<b>F</b>
28 First St and Harrison St	Signal	<b>&gt; 80</b>	<b>1.44</b>	<b>F</b>
29 Fifth/Bryant/I-80 EB on-ramps	Signal	<b>&gt; 80</b>	<b>1.34</b>	<b>F</b>

Source: CHS Consulting Group, 2014.

Notes:

**Bold** indicates an unacceptable intersection level of service condition (LOS E or F).

1. Signal indicates signalized intersection; TWSC indicates a Two-Way Stop-Controlled intersection.

2. LOS and delay for signalized intersections represent conditions for the overall intersection; LOS and delay for TWSC intersections represent conditions for the side-street stop-controlled approach, eastbound (EB); westbound (WB).

3. Volume-to-Capacity (V/C) ratios are only presented for intersections that operate at unacceptable LOS conditions (LOS E or F), per City standards.





**Table 13 – Intersection Level of Service: Cumulative (2040) and Cumulative Plus Project – Weekday PM Peak Hour**

Overall Intersection Summary						
		2040 Cumulative			Cumulative + Project	
#	Study Intersection	Delay <sup>1</sup> (seconds)	V/C <sup>2</sup>	LOS	Delay <sup>1</sup> (seconds)	V/C <sup>2</sup> LOS
1	Market St/ Montgomery St	> 80	1.02	F	> 80	1.13 F
2	Mission St/ New Montgomery St	> 80	1.36	F	> 80	1.47 F
3	Howard St/ New Montgomery St	17.5		B	55.9	1.05 E
4	Howard St/ Hawthorne St	12.0		B	42.7	D <sup>3</sup>
5	Folsom St/ Hawthorne St	> 80	1.98	F	> 80	2.05 F
6	Harrison St/ Hawthorne St	30.5		C	> 80	1.38 F
7	Bryant St/ Third St	> 80	2.88	F	> 80	2.91 F
8	Brannan St/ Third St	> 80	1.30	F	> 80	1.51 F
9	Townsend St/ Third St	> 80	1.69	F	> 80	2.40 F
10	King St/Third St	> 80	1.34	F	> 80	1.39 F
11	Market St/ Second St	10.5		B	15.6	B
12	Mission St/ Second St	24.4		C	41.1	D
13	Minna St/ Second St	0.6		A (NB)	0.4	A (NB)
14	Howard St/ Second St	> 80	1.20	F	> 80	1.03 F
15	Folsom St/ Second St	> 80	1.62	F	> 80	1.72 F
16	Harrison St/ Second St	> 80	2.58	F	> 80	3.39 F
17	Bryant St/ Second St	> 80	2.26	F	> 80	2.56 F
18	South Park St/Second St	61.0	N/A	F	10.7	B
19	Brannan St/ Second St	31.8		C	31.6	C
20	Townsend St/ Second St	73.3	1.20	E	> 80	1.34 F
21	King St/ Second St	> 80	1.03	F	> 80	0.90 F
22	Folsom St/ Essex St	> 80	6.50	F	> 80	2.84 F
23	Harrison St/ Essex St	> 80	3.73	F	> 80	3.30 F
24	Market St/ First St	17.8		B	18.2	B
25	Mission St/ First St	33.7		C	27.0	C
26	Howard St/ First St	> 80	1.21	F	> 80	1.24 F
27	Folsom St/ First St	> 80	2.48	F	> 80	2.59 F
28	Harrison St/ First St	> 80	1.55	F	> 80	1.74 F
29	Fifth St/Bryant St/ I-80 EB On-Ramp	> 80	3.37	F	> 80	3.32 F

Notes:

**Bold** indicates an unacceptable intersection level of service condition (LOS E or F).

**Shaded** values indicate a *Significant Project-Specific Traffic Impact*.

1. LOS and delay for signalized intersections represent conditions for the overall intersection; LOS and delay for unsignalized (e.g., TWSC) intersections represent conditions for the side-street stop-controlled approach, northbound (NB).

2. Volume-to-Capacity (V/C) ratios are only presented for intersections that operate at unacceptable LOS conditions (LOS E or F), per City standards.

3. Intersection #4 Howard and Hawthorne Street was identified as resulting in a significant impact under Existing plus Project Conditions; therefore, it is identified as having a significant impact in the cumulative condition. Also, this intersection would operate at unacceptable LOS F under Cumulative plus Project conditions if the Central SoMa Plan, and its associated reduction in traffic volumes on Howard Street, was not adopted.

Source: CHS Consulting Group, 2014.







# DRAFT ENVIRONMENTAL IMPACT REPORT

## San Francisco Museum of Modern Art Expansion / Fire Station Relocation and Housing Project

PLANNING DEPARTMENT  
CASE NOS. 2009.0291E and 2010.0275E

STATE CLEARINGHOUSE NO. 2010102047



SAN FRANCISCO  
**PLANNING  
DEPARTMENT**

Draft EIR Publication Date:	JULY 11, 2011
Draft EIR Public Hearing Date:	AUGUST 11, 2011
Draft EIR Public Comment Period:	JULY 11, 2011 - AUGUST 25, 2011

*Written comments should be sent to:*

Environmental Review Officer | 1650 Mission Street, Suite 400 | San Francisco, CA 94103

10775



**Table IV.D-1: Intersection Level of Service, Existing Conditions – Weekday PM and Saturday Midday Peak Hours**

Intersection	Delay <sup>1</sup>	LOS <sup>2</sup>
<b>Weekday PM Peak Hour</b>		
1. Third/Market	56.2	E
2. Third/Mission	20.1	C
3. Third/Howard	36.1	D
4. New Montgomery/Market	42.6	D
5. New Montgomery/Mission	21.3	C
6. New Montgomery/Minna <sup>3</sup>	45.3 (wb)/44.3 (eb)	E/E
7. New Montgomery/Natoma <sup>3</sup>	30.4 (eb)	D
8. New Montgomery/Howard	56.7	E
9. Fifth/Howard	24.9	C
10. Fifth/Folsom	19.7	B
11. Fifth/Harrison/I-80 off-ramp	50.0	D
12. Sixth/Howard	23.6	C
13. Sixth/Folsom	20.0	B
14. Sixth/Shikey <sup>3</sup>	37.3 (wb)	E
15. Sixth/Harrison	25.7	C
<b>Saturday Midday Peak Hour</b>		
1. Third/Market	26.7	C
2. Third/Mission	16.0	B
3. Third/Howard	16.1	B

Notes:

<sup>1</sup> Delay presented in seconds per vehicle.

<sup>2</sup> Intersections operating at LOS E or LOS F highlighted in **bold**.

<sup>3</sup> Unsignalized intersection. Peak hour signal warrants are not met.

wb = westbound; eb = eastbound

Source: LCW Consulting, 2011.

The signalized intersections of Third/Market and New Montgomery/Howard Streets currently experience the greatest average delay per vehicle, and both intersections operate at an overall intersection operating condition of LOS E. In the vicinity of the SFMOMA Expansion site, Third Street and New Montgomery Street serve as primary routes to and from I-80. The poor operating conditions at the intersection of New Montgomery/Howard Streets are due to the high volumes of traffic on Howard Street westbound and on New Montgomery Street southbound. Conditions at this intersection are exacerbated by the nearby signalized intersection of Hawthorne/Howard Streets.



- Conversion of Natoma Street between First and Second Streets into a pedestrian-only street, and establishment and installation of signalized midblock pedestrian crossings on New Montgomery at Second Street and at Natoma Street.<sup>16</sup>

**Traffic Impacts.** Figure IV.D-16 presents the 2030 Cumulative traffic volumes for the weekday PM peak hour for intersections in the vicinity of the SFMOMA Expansion site, while Figure IV.D-17 presents the PM peak hour volumes for intersections in the vicinity of the Fire Station Relocation and Housing Project site. Table IV.D-27 presents a comparison between the Existing and 2030 Cumulative intersection operating conditions for the weekday PM peak hour. Under 2030 Cumulative conditions, vehicle delays would increase at the study intersections over Existing conditions, and 10 of the 15 study intersections would operate at LOS E or LOS F conditions (as compared with four intersections under Existing conditions).

**Table IV.D-27: Intersection Level of Service, Existing and 2030 Cumulative Conditions – Weekday PM Peak Hour**

Intersection	Existing		2030 Cumulative	
	Delay (v/c) <sup>1</sup>	LOS	Delay (v/c) <sup>1</sup>	LOS
1. Third/Market Streets	56.2	E	>80 (1.02)	F
2. Third/Mission Streets	20.1	C	>80 (4.78)	F
3. Third/Howard Streets	36.1	D	>80 (1.66)	F
4. New Montgomery/Market Streets	42.6	D	63.2	E
5. New Montgomery/Mission Streets	21.3	C	>80 (1.17)	F
6. New Montgomery/Minna Streets <sup>2</sup>	45.3 (wb)	E	>60 (wb/eb)	F
7. New Montgomery/Natoma Streets <sup>2</sup>	30.4 (eb)	D	36.8 (eb)	E
8. New Montgomery/Howard Streets	56.7	E	>80 (2.27)	F
9. Fifth/Howard Streets	24.9	C	51.3	D
10. Fifth/Folsom Streets	19.7	B	29.8	C
11. Fifth/Harrison Streets /I-80 off-ramp	50.0	D	>80 (0.97)	F
12. Sixth/Howard Streets	23.6	C	43.3	D
13. Sixth/Folsom Streets	20.0	B	31.0	C
14. Sixth/Shipley Streets <sup>2</sup>	37.3 (wb)	E	60.3 (wb)	F
15. Sixth/Harrison Streets	25.7	C	53.0	D

Notes:

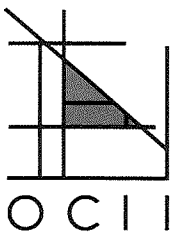
<sup>1</sup> Delay presented in seconds per vehicle. Intersections operating at LOS E or LOS F are highlighted in **bold**. Volume-to-capacity (v/c) ratio is presented for signalized intersections operating at LOS F.

<sup>2</sup> Unsignalized intersection. Peak hour signal warrants are not met.

Source: LCW Consulting, 2011.

<sup>16</sup> The SFMOMA Expansion would complement the proposed Transit Center District Plan improvements, as it would provide a new pedestrian connection between Natoma and Howard Streets. It would also allow for access between Natoma Street and Third Street through the public portion of the museum on the first and second floors.





office of

COMMUNITY INVESTMENT  
and INFRASTRUCTURE

November 12, 2015

101-0752015-132

***Via Email and U.S. Mail***

Angela Calvillo  
Clerk of the Board of Supervisors  
City Hall, Room 244  
San Francisco, CA 94102-4689

Re: Appeal Procedures for Successor Agency Environmental Leadership Projects

Dear Ms. Calvillo:

I am in receipt of the letter dated November 10, 2015 and sent on your behalf by Alisa Somera, Acting Legislative Deputy. In that letter, your office requests additional information regarding the appeal procedures authorized under the Commission on Community Investment and Infrastructure's ("CCII") Resolution No. 33-2015 (June 2, 2015). In consultation with counsel for the Successor Agency to the Redevelopment Agency, commonly known as the Office of Community Investment and Infrastructure, ("Successor Agency" or "OCII"), and the San Francisco City Attorney's Office, I am providing you with additional information below relating to appeals filed in accordance with that resolution.

The certification of any form of Final Environmental Impact Report ("FEIR") for an Environmental Leadership Project by the Successor Agency Commission, also known as CCII, may be appealed to the Board of Supervisors ("Board"), acting as the governing body of the Successor Agency, pursuant to the terms of Resolution No. 33-2015, approved by the CCII on June 2, 2015. The Successor Agency is a state authorized entity created by statute, the Redevelopment Dissolution Law, Cal. Health & Safety Code §§ 34170 et seq. The Successor Agency has succeeded to the "organizational status" of the Redevelopment Agency and is separate and distinct from the City and County of San Francisco ("City"). Cal. Health & Safety Code 34173 (g).

In adopting Ordinance No. 215-12, the Board, acting as the governing body of the Successor Agency, and consistent with the Redevelopment Dissolution Law, delegated to CCII exclusive final land use authority for certain Major Approved Development Projects (as defined in the Ordinance) in those geographic areas within the City formerly subject to the jurisdiction of the San Francisco Redevelopment Agency, including Mission Bay. Even so, CCII, through its Resolution No. 33-2015, created a right of appeal to the Board, acting as the Successor Agency's governing body having delegated such land use authority, on the issue of the adequacy of the FEIRs prepared by OCII for "Environmental Leadership Projects" meeting the terms set forth in

Edwin M. Lee  
MAYOR

Tiffany Bohee  
EXECUTIVE DIRECTOR

Mara Rosales  
CHAIR

Miguel Bustos  
Marilyn Mondejar  
Leah Pimentel  
Darshan Singh  
COMMISSIONERS

One S. Van Ness Ave.  
5th Floor  
San Francisco, CA  
94103

415 749 2400

www.sfocii.org

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NOV 16 PM 4:19  
AK



California Public Resources Code section 21183. CCII created this process with the specific goal of ensuring an increased level of public participation with respect to the substance and contents of Final EIRs for Environmental Leadership Projects.

You have asked what could be the potential outcomes of Board action under the appeal process here. The CCII, in adopting Resolution No. 33-2015, envisioned that the Board would follow the standards and procedures for appeals that it applies when it hears appeals of CEQA decisions by the City's Planning Commission or other City agencies. In this regard, CCII envisions that the Board by a majority vote of all of its members may affirm or reverse the certification of the FEIR by CCII. If the Board affirms CCII's certification, then CCII will consider such certification and the approvals following the certification as administratively final.

If the Board reverses the certification, prior project approvals would be rescinded to allow CCII to, if and as necessary, adopt additional findings, revise the FEIR, or amend the project approvals. The CCII, on remand, may consider new or additional mitigation measures or alternatives before reconsidering whether to certify the revised FEIR and reapprove the Project or one of its alternatives. Any further appeal from a subsequent CEQA decision by OCII after such remand shall be limited to the adequacy of changes made by OCII in response to the Board's findings relating to the initial appeal.

Please let me know if you have any additional questions.

Sincerely,

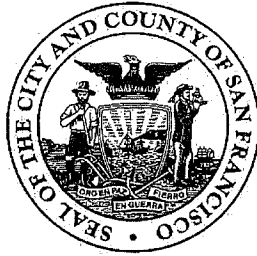
A handwritten signature in cursive script that reads "Tiffany Bohee". The signature is written in dark ink and is positioned above the printed name and title.

Tiffany Bohee  
Executive Director

cc: Members, Board of Supervisors  
Adam Van de Water, Office of Economic and Workforce Development  
Brett Bollinger, Planning Department  
John D. Malamut, Deputy City Attorney  
Jon Givner, Deputy City Attorney



BOARD of SUPERVISORS



City Hall  
1 Dr. Carlton B. Goodlett Place, Room 244  
San Francisco 94102-4689  
Tel. No. 554-5184  
Fax No. 554-5163  
TDD/TTY No. 544-5227

November 10, 2015

*Via Email and U.S Mail*

Tiffany Bohee  
Executive Director  
Office of Community Investment and Infrastructure  
1 South Van Ness Street, 5<sup>th</sup> Floor  
San Francisco CA 94103

Re: Golden State Warriors Appeal Procedures

Dear Ms. Bohee:

The appeal procedures for the Board of Supervisors to address appeals in accordance with the Commission on Community Investment and Infrastructure's (CCII) Resolution No. 33-2015 has been posted on the Board of Supervisors' website. A copy of those appeal procedures are attached for your reference. Appeal Procedure (7), as identified in CCII's Resolution, states: "the OCII Executive Director must otherwise assist the Clerk of the Board in accordance with any procedures established by the Clerk of the Board for such appeals." Consequently, we would like to know if there is any additional information that we should make available to the public and Board members regarding the appeal procedures that are not identified in the document we have posted; in particular, we are interested in what the potential outcomes could be from a potential appeal.

Sincerely,

A handwritten signature in cursive script that reads "Alisa Somera".

Alisa Somera  
Acting, Legislative Deputy

A handwritten signature in cursive script that reads "Angela Calvillo".  
Angela Calvillo  
Clerk of the Board of Supervisors

(Attachment)

c: Members, Board of Supervisors  
Adam Van de Water, Office of Economic and Workforce Development  
Brett Bollinger, Planning Department  
John D. Malamut, Deputy City Attorney  
Jon Givner, Deputy City Attorney





## **Appeal Filing to the Board of Supervisors In Its Capacity as Governing Body of the Successor Agency**

### **Environmental Leadership Projects California Environmental Quality Act (CEQA) Final Environmental Impact Report Appeal (Commission on Community Investment and Infrastructure Resolution No. 33-2015)**

The certification of a Final Environmental Impact Report (FEIR) for an Environmental Leadership Project by the Successor Agency to the former San Francisco Redevelopment Agency (Successor Agency, also known as the Office of Community Investment and Infrastructure along with its policy body the Commission on Community Investment and Infrastructure [CCII]) may be appealed to the Board of Supervisors (Board) pursuant to the terms of CCII Resolution No. 33-2015, approved on June 2, 2015

Any appeal filed pursuant to Resolution No. 33-2015 shall be filed in accordance with the procedures listed below. This document summarizes the process. Further details of this process and about Environmental Leadership Projects California Public Resources Code Sections 21178 et seq., are set forth in the text of CCII Resolution No. 33-2015, copies of which are available in the offices of the Clerk of the Board of Supervisors or at the following electronic link:

[www.sfocii.org/modules/showdocument.aspx?documentid=9140](http://www.sfocii.org/modules/showdocument.aspx?documentid=9140). In case of any conflict between any part of this document and CCII Resolution No. 33-2015, the provisions of CCII Resolution No. 33-2015 control. All references below to the Board are to the Board of Supervisors and all references to the Clerk of the Board are to the Clerk of the Board of Supervisors.

#### **Who May File An Appeal:**

Only a person or entity that submitted comments to the Office of Community Investment and Infrastructure (OCII) or the Commission on Community Investment and Infrastructure (CCII), either in writing during the public review period of an Environmental Leadership Project EIR, or orally or in writing at or before the close of a CCII public hearing on the EIR, may appeal a CCII certification of an FEIR on an Environmental Leadership Project.

CCII Resolution No. 33-2015, Exhibit A, Para. (1).

#### **Filing Deadline:**

The appellant or his or her agent must submit a letter of appeal to the Office of Community Investment and Infrastructure (OCII) Executive Director or his or her designee (collectively referred to as OCII Executive Director) within 10 calendar days of OCII's Environmental Leadership EIR certification and no later than 5:00 pm on that 10th day. No extension of this deadline may be granted.

CCII Resolution No. 33-2015, Exhibit A, Paras. (2), (3), and (5).

*(NOTE: If the 10<sup>th</sup> day falls on a Saturday, Sunday or holiday the appeal may be filed before 5:00 p.m. on the next business day. Also note that the appeal is filed with the OCII Executive Director, not the Clerk's Office.)*



**What and Where to File:**

The following must be filed with the OCII Executive Director at the address below:

Executive Director  
Office of Community Investment and Infrastructure  
1 South Van Ness, 5th Floor  
San Francisco, CA. 94103

*(NOTE: Filing is **not** to be made with the Clerk of the Board of Supervisors.)*

(1) A signed letter of appeal stating the specific grounds for appeal of OCII's Environmental Leadership EIR certification, including references to the written or oral comments that were timely submitted to OCII raising the issues identified in the appeal, and any other written materials in support of the appeal. The appeal may be based only on specific CEQA grounds alleged by any persons or entities before OCII makes its decision on the project. For purposes of these procedures, "project" has the meaning for such term set forth in CEQA Guidelines, Title 14 CCR, Division 6, Chapter 3, Section 15378, and "approval" has the meaning set forth for such term in Section 15352.

CCII Resolution No. 33-2015, Exhibit A, Paras. (4) and (5).

**Lodging of the appeal with the Clerk of the Board of Supervisors for purposes of scheduling an appeal hearing:**

After following the procedures established in CCII Resolution No. 33-2015, Exhibit A, Paragraph (6), the OCII Executive Director will advise the Clerk of the Board of the notice that he or she has accepted an appeal and provide a copy of the letter of appeal and a list of individuals and organizations that have requested notices relating to the project. The Clerk of the Board of Supervisors will then set the appeal for a public hearing before the Board in accordance with the "Hearing Date" provisions set forth below.

CCII Resolution No. 33-2015, Exhibit A, Para. (6).

*(NOTE: A decision by the OCII Executive Director rejecting an appeal is final and may not be appealed. CCII Resolution No. 33-2015, Exhibit A, Para. (6).)*



**Hearing Date:**

After the 10 days for filing an appeal with OCII has expired, the Clerk, if he or she has been notified that an appeal was accepted by the OCII Executive Director, will schedule an appeal hearing at a regular meeting of the full Board of Supervisors no less than 21 and no more than 45 days following the date(s) of the OCII Executive Director's notification of acceptance of an appeal to the Clerk of the Board. The Clerk will inform the appellant(s) of the hearing date and time after receipt of the OCII Executive Director's notification of acceptance of the appeal and the Clerk has scheduled the matter for hearing. If more than one appeal is filed on the same FEIR, the President of the Board may request the Clerk schedule a consolidated appeal hearing.

CCII Resolution No. 33-2015, Exhibit A, Paras. (6) and (8) and Administrative Code, Section 31.16 (b) (4).

**Hearing Notice:**

The Clerk will send notices to the appellant(s) and all organizations and individuals who previously have requested such notice in writing no less than 14 days prior to the date the appeal is scheduled to be heard by the Board. The appellant must provide the names and addresses in label format of interested parties that it wishes the Clerk to notify.

CCII Resolution No. 33-2015, Exhibit A, Paras. (6), (7), and (8) and Administrative Code, Section 31.16 (b) (4).

*(NOTE: If the OCII Executive Director has not done so already, he or she shall provide to the Clerk of the Board a list of individuals and organizations that have commented, in writing or orally during the public review period, on the decision or determination in a timely manner, and individuals who requested notice of an appeal, no less than 20 days prior to the scheduled hearing.)*

**Procedural Steps:**

The public, appellant, project sponsor and OCII may submit written materials to the Clerk of the Board no later than noon, 11 days prior to the hearing. Promptly, but no later than 11 calendar days before the scheduled hearing, the OCII Executive Director, if he or she has not done so already, will transmit copies of the environmental review document to the Clerk of the Board and make the administrative record available to the Board. Additional documentation the appellant would like the Board members to consider after the 11-day deadline must be delivered (18 hard copies and one electronic copy sent to [bos.legislation@sfgov.org](mailto:bos.legislation@sfgov.org)) to the Clerk no later than noon, eight days prior to the hearing. Materials submitted after the eight-day deadline will be marked as "received after the eight-day deadline" and placed in the Board file but not distributed.

CCII Resolution No. 33-2015, Exhibit A, Paras. (7) and (8) and Administrative Code, Section 31.16 (b) (5).

*(NOTE: The administrative record for any pending EIR for an Environmental Leadership Project can be found at the following electronic link [www.gsweventcenter.com](http://www.gsweventcenter.com).)*



**Decision:**

The Board by a majority vote of all of its members may affirm or reverse the certification of the FEIR by CCII. The Board will act on the appeal within 30 days of the date scheduled or within 40 days if the Board does not hold at least three regular Board meetings within 30 days of the scheduled hearing. If the full Board is not present, the Board may postpone a decision until the full Board is present. The Board may not postpone the decision on the appeal for more than 90 days following expiration of the time for appeal.

Administrative Code, Section 31.16 (b) (7) and (8).

**Continuances:**

Only the Board of Supervisors, acting as a body (and not the Clerk of the Board), may continue the appeal hearing or grant a written request for continuance. A written request must be submitted by an appellant and the project sponsor, in advance, for the Board's consideration. Administrative Code, Section 31.16 (b) (7).

**Contact:**

Office of the Clerk of the Board/Legislative Clerk  
(415) 554-5184 or (415) 554-4445



## Carroll, John (BOS)

---

**From:** Tom Lippe <lippelaw@sonic.net>  
**Sent:** Wednesday, November 25, 2015 12:00 PM  
**To:** Carroll, John (BOS); kaufhauser@warriors.com; CMiller@stradasf.com; BOS-Supervisors  
**Cc:** dkelly@warriors.com; CPC-WarriorsAdmin; Givner, Jon (CAT); Stacy, Kate (CAT); Malamut, John (CAT); Nuru, Mohammed (DPW); Sanguinetti, Jerry (DPW); Sweiss, Fuad (DPW); Storrs, Bruce (DPW); Sanchez, Scott (CPC); Jones, Sarah (CPC); Rodgers, AnMarie (CPC); Starr, Aaron (CPC); Pearson, Audrey (CAT); Rahaim, John (CPC); Bollinger, Brett (CPC); Ionin, Jonas (CPC); BOS-Legislative Aides; Calvillo, Angela (BOS); Somera, Alisa (BOS); BOS Legislation, (BOS); Patrick Soluri; Osha Meserve; Susan Brandt-Hawley  
**Subject:** Re: FW: California Environmental Quality Act Appeal - Tentative Map Appeal - Golden State Warriors Event Center Project - Appeal Hearing on December 8, 2015  
**Attachments:** C025c to BOS re EIR Appeal Hrg.pdf  
**Categories:** 150990

Dear Ms Calvillo and Mr. Carroll:

Please see attached correspondence regarding this matter.

Tom Lippe  
Law Offices of Thomas N. Lippe APC  
201 Mission St., 12th Floor  
San Francisco, CA 94105  
Tel 415 777-5604 x 1  
Fax 415 777-5606  
e-mail: [lippelaw@sonic.net](mailto:lippelaw@sonic.net)  
Web: [www.lippelaw.com](http://www.lippelaw.com)

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On 11/24/2015 11:55 AM, Tom Lippe wrote:

Dear Ms Calvillo and Mr. Carroll:

I am in receipt of your November 23, 2015, letter noticing the hearing in EIR appeal for December 8, 2015.

Your letter states:

"Please provide to the Clerk's Office by 12:00 noon: 14 days prior to the hearing: names and addresses of interested parties to be notified of the hearing, in spreadsheet format."

Your letter does not define "interested parties." Neither does Administrative Code section 31.16 or OCII Resolution No. 33-2015.

Your previous memorandum regarding EIR appeals for OCII certified EIRs (attached as Exhibit 3 to the Alliance's November 13, 2015, Notice of Appeal) states:

"The Clerk will send notices to the appellant(s) and all organizations and individuals who previously have



requested such notice in writing no less than 14 days prior to the date the appeal is scheduled to be heard by the Board. The appellant must provide the names and addresses in label format of interested parties that it wishes the Clerk to notify."

Based on this memorandum, I understand your letter's reference to "interested parties" to mean parties that the Alliance "wishes the Clerk to notify." There are no parties that the Alliance wishes the Clerk to notify.

However, I note that there are parties who should receive notice, namely the various City departments that have granted permits to the Project, the OCII, and the Golden State Warriors, LLC (also named GSW Arena, LLC, attention: David Kelly); and that the emails from your office yesterday and today providing this notice include all such parties as recipients.

Thank you for your attention to this matter.

Tom Lippe  
Law Offices of Thomas N. Lippe APC  
201 Mission St., 12th Floor  
San Francisco, CA 94105  
Tel 415 777-5604 x 1  
Fax 415 777-5606  
e-mail: [lippelaw@sonic.net](mailto:lippelaw@sonic.net)  
Web: [www.lippelaw.com](http://www.lippelaw.com)

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On 11/24/2015 9:25 AM, Carroll, John (BOS) wrote:

Good morning,

I am resending this message in order to update the recipients list for this and future document distributions. If you received this message previously, feel free to ignore these links; I have not updated them.

The Office of the Clerk of the Board has scheduled a hearing date for Special Order before the Board of Supervisors on **December 8, 2015, at 3:00 p.m.** Please find linked below a letter regarding the Final Subsequent Environmental Impact Report certification and Tentative Map appeals for the proposed Golden State Warriors Event Center Project, as well as direct links to the Office of Community Investment and Infrastructure's timely filing determination for the CEQA appeal.

[Clerk of the Board Letter Re: FSIER Appeal - November 23, 2015](#)  
[OCII Memo Re: FSEIR Appeal - November 16, 2015](#)

[Clerk of the Board Letter Re: Tentative Map Appeal - November 23, 2015](#)

I invite you to review the entirety of both matters on our [Legislative Research Center](#) by following the links below.



Board of Supervisors File No. 150990 - FSEIR Appeal  
Board of Supervisors File No. 151204 - Tentative Map Appeal

Thank you,

**John Carroll**

**Legislative Clerk**

Board of Supervisors

San Francisco City Hall, Room 244

San Francisco, CA 94102

(415)554-4445 - Direct | (415)554-5163 - Fax

[john.carroll@sfgov.org](mailto:john.carroll@sfgov.org) | [bos.legislation@sfgov.org](mailto:bos.legislation@sfgov.org)



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Law Offices of  
THOMAS N. LIPPE, APC

201 Mission Street  
12th Floor  
San Francisco, California 94105

Telephone: 415-777-5604  
Facsimile: 415-777-5606  
Email: [Lippelaw@sonic.net](mailto:Lippelaw@sonic.net)

November 25, 2015

Angela Calvillo  
Clerk of the Board of Supervisors  
1 Dr. Carlton B. Goodlett Place  
City Hall, Room 244  
San Francisco, Ca. 94102-4689

**Re: Notice of Hearing Re Appeal of SEIR for the Warriors Arena Project  
and Request for Continuance.**

Dear Ms Calvillo:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project").

I am in receipt of your November 23, 2015, letter noticing the hearing in EIR appeal for December 8, 2015. Your letter states:

"Please provide to the Clerk's Office by 12:00 noon: ...  
11 days prior to the hearing: any documentation which you may want  
available to the Board members prior to the hearing."

While your letter does not mention it, your Memorandum regarding EIR appeals for OCII certified EIRs (attached as Exhibit 3 to the Alliance's November 13, 2015, Notice of Appeal) states:

"The public, appellant, project sponsor and OCII may submit written materials to the Clerk of the Board no later than noon, 11 days prior to the hearing. ...  
Additional documentation the appellant would like the Board members to consider after the 11-day deadline must be delivered (18 hard copies and one electronic copy sent to [bos.legislation@sfgov.org](mailto:bos.legislation@sfgov.org)) to the Clerk no later than noon, eight days prior to the hearing."

Therefor, since your notice of hearing arrived in my email inbox at 4:56 pm on Monday, November 23, and because City office are closed on Friday, the Alliance will submit additional documentation the appellant would like the Board members to consider by noon on November 30, 2015, 8 days before the hearing, as provided in your Memorandum regarding EIR appeals for

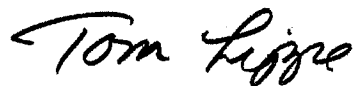


Angela Calvillo  
Clerk of the Board of Supervisors  
Re: Notice of Hearing Re Appeal of SEIR for the Warriors Arena Project  
November 25, 2015  
Page 2

OCII certified EIRs.

Thank you for your attention to this matter.

Very Truly Yours,

A handwritten signature in black ink, reading "Tom Lippe". The signature is written in a cursive, flowing style.

Thomas N. Lippe

\\Lgw-12-19-12\l\Mission Bay\Administrative Proceedings\LOTNL Docs\C025c to BOS re EIR Appeal Hrg.wpd



## Carroll, John (BOS)

---

**From:** SF Docs (LIB)  
**Sent:** Wednesday, November 25, 2015 9:12 AM  
**To:** BOS Legislation, (BOS)  
**Subject:** Re: Hearing Notices - California Environmental Quality Act Appeal - Tentative Map Appeal - Golden State Warriors Event Center Project - December 8, 2015

**Categories:** 150990, 151204

Hi John,

I have posted the notices.

Thank you,

Michael

---

**From:** BOS Legislation, (BOS)  
**Sent:** Wednesday, November 25, 2015 8:32 AM  
**To:** SF Docs (LIB)  
**Cc:** BOS Legislation, (BOS)  
**Subject:** FW: Hearing Notices - California Environmental Quality Act Appeal - Tentative Map Appeal - Golden State Warriors Event Center Project - December 8, 2015

Good morning,

Please post the hearing notices linked below for public viewing.

Thanks so much,

**John Carroll**

**Legislative Clerk**

Board of Supervisors

San Francisco City Hall, Room 244

San Francisco, CA 94102

(415)554-4445 - Direct | (415)554-5163 - Fax

[john.carroll@sfgov.org](mailto:john.carroll@sfgov.org) | [bos.legislation@sfgov.org](mailto:bos.legislation@sfgov.org)



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---

**From:** BOS Legislation, (BOS)

**Sent:** Tuesday, November 24, 2015 2:52 PM

**To:** lippelaw@sonic.net; dkelly@warriors.com; CPC-WarriorsAdmin <CPC-WarriorsAdmin@sfgov.org>; Givner, Jon (CAT) <jon.givner@sfgov.org>; Stacy, Kate (CAT) <kate.stacy@sfgov.org>; Malamut, John (CAT) <john.malamut@sfgov.org>; Nuru, Mohammed (DPW) <Mohammed.Nuru@sfdpw.org>; Sanguinetti, Jerry (DPW) <Jerry.Sanguinetti@sfdpw.org>; Sweiss, Fuad (DPW) <Fuad.Sweiss@sfdpw.org>; Storrs, Bruce (DPW) <Bruce.Storrs@sfdpw.org>; Sanchez, Scott (CPC) <scott.sanchez@sfgov.org>; Jones, Sarah (CPC) <sarah.b.jones@sfgov.org>; Rodgers, AnMarie (CPC) <anmarie.rodgers@sfgov.org>; Starr, Aaron (CPC) <aaron.starr@sfgov.org>; Pearson, Audrey (CAT) <audrey.pearson@sfgov.org>; Rahaim, John (CPC) <john.rahaim@sfgov.org>; Bollinger, Brett (CPC) <brett.bollinger@sfgov.org>; Ionin, Jonas (CPC) <jonas.ionin@sfgov.org>; kaufhauser@warriors.com; CMiller@stradasf.com; BOS-Supervisors <bos-supervisors@sfgov.org>; BOS-Legislative Aides <bos-legislative\_aides@sfgov.org>

**Cc:** Calvillo, Angela (BOS) <angela.calvillo@sfgov.org>; Somera, Alisa (BOS) <alisa.somera@sfgov.org>; BOS Legislation, (BOS) <bos.legislation@sfgov.org>; Carroll, John (BOS) <john.carroll@sfgov.org>

**Subject:** Hearing Notices - California Environmental Quality Act Appeal - Tentative Map Appeal - Golden State Warriors Event Center Project - December 8, 2015

Good afternoon,

The Office of the Clerk of the Board of Supervisors for the City and County of San Francisco has scheduled appeal hearings for Special Order before the Board on **December 8, 2015, at 3:00 p.m.**, for the Final Subsequent Environmental Impact Report certification and Tentative Map appeals for the proposed Golden State Warriors Event Center, filed by Thomas N. Lippe, on behalf of the Mission Bay Alliance.

The following links are the hearing notices:

[December 8, 2015 - Board of Supervisors - Appeal Hearing - FSIER - Golden State Warriors Event Center](#)

[December 8, 2015 - Board of Supervisors - Appeal Hearing - Tentative Map - Golden State Warriors Event Center](#)

I invite you to review the entirety of both matters on our [Legislative Research Center](#) by following the links below:

[Board of Supervisors File No. 150990 - FSEIR Appeal](#)

[Board of Supervisors File No. 151204 - Tentative Map Appeal](#)

Thank you,

**John Carroll**

**Legislative Clerk**

Board of Supervisors

San Francisco City Hall, Room 244

San Francisco, CA 94102

(415)554-4445 - Direct | (415)554-5163 - Fax

[john.carroll@sfgov.org](mailto:john.carroll@sfgov.org) | [bos.legislation@sfgov.org](mailto:bos.legislation@sfgov.org)



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BOARD of SUPERVISORS



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San Francisco 94102-4689  
Tel. No. 554-5184  
Fax No. 554-5163  
TDD/TTY No. 554-5227

## NOTICE OF PUBLIC HEARING

### BOARD OF SUPERVISORS OF THE CITY AND COUNTY OF SAN FRANCISCO

NOTICE IS HEREBY GIVEN THAT the Board of Supervisors of the City and County of San Francisco will hold a public hearing to consider the following appeal and said public hearing will be held as follows, at which time all interested parties may attend and be heard:


**Date:** Tuesday, December 8, 2015

**Time:** 3:00 p.m.

**Location:** Legislative Chamber, City Hall, Room 250  
1 Dr. Carlton B. Goodlett, Place, San Francisco, CA 94102

**Subject:** **File No. 150990.** Hearing of persons interested in or objecting to the certification of the Final Subsequent Environmental Impact Report for the proposed Golden State Warriors Event Center and Mixed-Use Development Project at Mission Bay South Blocks 29-32, an Environmental Leadership Development Project, as defined by California Public Resources Code, Section 21183, that consists of a multi-purpose mixed-use event center including office, retail, open space, and parking on an approximately 11-acre site within the Mission Bay South Redevelopment Plan Area, adopted by the Commission on Community Investment and Infrastructure (CCII) on November 3, 2015, through CCII Resolution No. 69-2015. (District 6) (Appellant: Thomas N. Lippe, APC, on behalf of the Mission Bay Alliance) (Filed November 13, 2015).

In accordance with Administrative Code, Section 67.7-1, persons who are unable to attend the hearing on this matter may submit written comments prior to the time the hearing begins. These comments will be made as part of the official public record in this matter and shall be brought to the attention of the Board of Supervisors. Written comments should be addressed to Angela Calvillo, Clerk of the Board, City Hall, 1 Dr. Carlton B. Goodlett Place, Room 244, San Francisco, CA, 94102. Information relating to this matter is available in the Office of the Clerk of the Board and agenda information relating to this matter will be available for public review on Friday, December 4, 2015.

  
Angela Calvillo  
Clerk of the Board

DATED: November 24, 2015  
POSTED/MAILED: November 24, 2015 10792



## Carroll, John (BOS)

---

**From:** BOS Legislation, (BOS)  
**Sent:** Tuesday, November 24, 2015 2:52 PM  
**To:** lippelaw@sonic.net; dkelly@warriors.com; CPC-WarriorsAdmin; Givner, Jon (CAT); Stacy, Kate (CAT); Malamut, John (CAT); Nuru, Mohammed (DPW); Sanguinetti, Jerry (DPW); Sweiss, Fuad (DPW); Storrs, Bruce (DPW); Sanchez, Scott (CPC); Jones, Sarah (CPC); Rodgers, AnMarie (CPC); Starr, Aaron (CPC); Pearson, Audrey (CAT); Rahaim, John (CPC); Bollinger, Brett (CPC); Ionin, Jonas (CPC); kaufhauser@warriors.com; CMiller@stradasf.com; BOS-Supervisors; BOS-Legislative Aides  
**Cc:** Calvillo, Angela (BOS); Somera, Alisa (BOS); BOS Legislation, (BOS); Carroll, John (BOS)  
**Subject:** Hearing Notices - California Environmental Quality Act Appeal - Tentative Map Appeal - Golden State Warriors Event Center Project - December 8, 2015

Good afternoon,

The Office of the Clerk of the Board of Supervisors for the City and County of San Francisco has scheduled appeal hearings for Special Order before the Board on **December 8, 2015, at 3:00 p.m.**, for the Final Subsequent Environmental Impact Report certification and Tentative Map appeals for the proposed Golden State Warriors Event Center, filed by Thomas N. Lippe, on behalf of the Mission Bay Alliance.

The following links are the hearing notices:

[December 8, 2015 - Board of Supervisors - Appeal Hearing - FSIER - Golden State Warriors Event Center](#)

[December 8, 2015 - Board of Supervisors - Appeal Hearing - Tentative Map - Golden State Warriors Event Center](#)

I invite you to review the entirety of both matters on our [Legislative Research Center](#) by following the links below:

[Board of Supervisors File No. 150990 - FSEIR Appeal](#)

[Board of Supervisors File No. 151204 - Tentative Map Appeal](#)

Thank you,

**John Carroll**

**Legislative Clerk**

Board of Supervisors

San Francisco City Hall, Room 244

San Francisco, CA 94102

(415)554-4445 - Direct | (415)554-5163 - Fax

[john.carroll@sfgov.org](mailto:john.carroll@sfgov.org) | [bos.legislation@sfgov.org](mailto:bos.legislation@sfgov.org)



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BOARD of SUPERVISORS



City Hall  
1 Dr. Carlton B. Goodlett Place, Room 244  
San Francisco 94102-4689  
Tel. No. 554-5184  
Fax No. 554-5163  
TDD/TTY No. 544-5227

PROOF OF MAILING

Legislative File No. 150990

Description of Items: **Hearing of persons interested in or objecting to the certification of the Final Subsequent Environmental Impact Report for the proposed Golden State Warriors Event Center and Mixed-Use Development Project at Mission Bay South Blocks 29-32, an Environmental Leadership Development Project, as defined by California Public Resources Code, Section 21183, that consists of a multi-purpose mixed-use event center including office, retail, open space, and parking on an approximately 11-acre site within the Mission Bay South Redevelopment Plan Area, adopted by the Commission on Community Investment and Infrastructure (CCII) on November 3, 2015, through CCII Resolution No. 69-2015. (District 6) (Appellant: Thomas N. Lippe, APC, on behalf of the Mission Bay Alliance) (Filed November 13, 2015).**

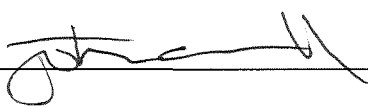
I, John Carroll, an employee of the City and County of San Francisco, mailed the above described document(s) by depositing the sealed items with the United States Postal Service (USPS) with the postage fully prepaid as follows:

Date: November 24, 2015

Time: 2:30 p.m..

USPS Location: Repro Pick-up Box in the Clerk of the Board's Office (Rm 244)

Mailbox/Mailslot Pick-Up Times (if applicable): N/A

Signature: 

Instructions: Upon completion, original must be filed in the above referenced file.



## Carroll, John (BOS)

---

**From:** Tom Lippe <lippelaw@sonic.net>  
**Sent:** Tuesday, November 24, 2015 11:56 AM  
**To:** Carroll, John (BOS); kaufhauser@warriors.com; CMiller@stradasf.com; BOS-Supervisors  
**Cc:** dkelly@warriors.com; CPC-WarriorsAdmin; Givner, Jon (CAT); Stacy, Kate (CAT); Malamut, John (CAT); Nuru, Mohammed (DPW); Sanguinetti, Jerry (DPW); Sweiss, Fuad (DPW); Storrs, Bruce (DPW); Sanchez, Scott (CPC); Jones, Sarah (CPC); Rodgers, AnMarie (CPC); Starr, Aaron (CPC); Pearson, Audrey (CAT); Rahaim, John (CPC); Bollinger, Brett (CPC); Ionin, Jonas (CPC); BOS-Legislative Aides; Calvillo, Angela (BOS); Somera, Alisa (BOS); BOS Legislation, (BOS); Patrick Soluri; Osha Meserve; Susan Brandt-Hawley  
**Subject:** Re: FW: California Environmental Quality Act Appeal - Tentative Map Appeal - Golden State Warriors Event Center Project - Appeal Hearing on December 8, 2015  
**Categories:** 150990

Dear Ms Calvillo and Mr. Carroll:

I am in receipt of your November 23, 2015, letter noticing the hearing in EIR appeal for December 8, 2015.

Your letter states:

"Please provide to the Clerk's Office by 12:00 noon: 14 days prior to the hearing: names and addresses of interested parties to be notified of the hearing, in spreadsheet format."

Your letter does not define "interested parties." Neither does Administrative Code section 31.16 or OCII Resolution No. 33-2015.

Your previous memorandum regarding EIR appeals for OCII certified EIRs (attached as Exhibit 3 to the Alliance's November 13, 2015, Notice of Appeal) states:

"The Clerk will send notices to the appellant(s) and all organizations and individuals who previously have requested such notice in writing no less than 14 days prior to the date the appeal is scheduled to be heard by the Board. The appellant must provide the names and addresses in label format of interested parties that it wishes the Clerk to notify."

Based on this memorandum, I understand your letter's reference to "interested parties" to mean parties that the Alliance "wishes the Clerk to notify." There are no parties that the Alliance wishes the Clerk to notify.

However, I note that there are parties who should receive notice, namely the various City departments that have granted permits to the Project, the OCII, and the Golden State Warriors, LLC (also named GSW Arena, LLC, attention: David Kelly); and that the emails from your office yesterday and today providing this notice include all such parties as recipients.

Thank you for your attention to this matter.

Tom Lippe  
Law Offices of Thomas N. Lippe APC  
201 Mission St., 12th Floor  
San Francisco, CA 94105  
Tel 415 777-5604 x 1  
Fax 415 777-5606  
e-mail: [lippelaw@sonic.net](mailto:lippelaw@sonic.net)  
Web: [www.lippelaw.com](http://www.lippelaw.com)



CONFIDENTIALITY NOTE: This and any accompanying pages contain information from Law Offices of Thomas N. Lippe APC which may be confidential and/or legally privileged. The information is intended to be for the sole use of the individual or entity named above. Unauthorized interception, review, use or disclosure is prohibited and may violate applicable laws including the Electronic Communications Privacy Act, 18 U.S.C. §§ 2510-2521. If you are not the intended recipient please contact the sender and destroy all copies of the communication.

On 11/24/2015 9:25 AM, Carroll, John (BOS) wrote:

Good morning,

I am resending this message in order to update the recipients list for this and future document distributions. If you received this message previously, feel free to ignore these links; I have not updated them.

The Office of the Clerk of the Board has scheduled a hearing date for Special Order before the Board of Supervisors on **December 8, 2015, at 3:00 p.m.** Please find linked below a letter regarding the Final Subsequent Environmental Impact Report certification and Tentative Map appeals for the proposed Golden State Warriors Event Center Project, as well as direct links to the Office of Community Investment and Infrastructure's timely filing determination for the CEQA appeal.

[Clerk of the Board Letter Re: FSIER Appeal - November 23, 2015](#)

[OCII Memo Re: FSEIR Appeal - November 16, 2015](#)

[Clerk of the Board Letter Re: Tentative Map Appeal - November 23, 2015](#)

I invite you to review the entirety of both matters on our [Legislative Research Center](#) by following the links below.

[Board of Supervisors File No. 150990 - FSEIR Appeal](#)

[Board of Supervisors File No. 151204 - Tentative Map Appeal](#)

Thank you,

**John Carroll**

**Legislative Clerk**

Board of Supervisors

San Francisco City Hall, Room 244

San Francisco, CA 94102

(415)554-4445 - Direct | (415)554-5163 - Fax

[john.carroll@sfgov.org](mailto:john.carroll@sfgov.org) | [bos.legislation@sfgov.org](mailto:bos.legislation@sfgov.org)



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## Carroll, John (BOS)

---

**From:** Carroll, John (BOS)  
**Sent:** Tuesday, November 24, 2015 9:26 AM  
**To:** lippelaw@sonic.net; dkelly@warriors.com; CPC-WarriorsAdmin; Givner, Jon (CAT); Stacy, Kate (CAT); Malamut, John (CAT); Nuru, Mohammed (DPW); Sanguinetti, Jerry (DPW); Sweiss, Fuad (DPW); Storrs, Bruce (DPW); Sanchez, Scott (CPC); Jones, Sarah (CPC); Rodgers, AnMarie (CPC); Starr, Aaron (CPC); Pearson, Audrey (CAT); Rahaim, John (CPC); Bollinger, Brett (CPC); Ionin, Jonas (CPC); kaufhauser@warriors.com; CMiller@stradasf.com; BOS-Supervisors; BOS-Legislative Aides  
**Cc:** Calvillo, Angela (BOS); Somera, Alisa (BOS); BOS Legislation, (BOS); Carroll, John (BOS)  
**Subject:** FW: California Environmental Quality Act Appeal - Tentative Map Appeal - Golden State Warriors Event Center Project - Appeal Hearing on December 8, 2015  
**Categories:** 150990, 151204

Good morning,

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[Board of Supervisors File No. 151204 - Tentative Map Appeal](#)

Thank you,

**John Carroll**

**Legislative Clerk**

Board of Supervisors

San Francisco City Hall, Room 244

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## **Carroll, John (BOS)**

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**Sent:** Monday, November 23, 2015 4:56 PM  
**To:** lippelaw@sonic.net; dkelly@warriors.com; CPC-WarriorsAdmin; Givner, Jon (CAT); Stacy, Kate (CAT); Malamut, John (CAT); Nuru, Mohammed (DPW); Sanguinetti, Jerry (DPW); Sweiss, Fuad (DPW); Storrs, Bruce (DPW); Sanchez, Scott (CPC); Jones, Sarah (CPC); Rodgers, AnMarie (CPC); Starr, Aaron (CPC); Pearson, Audrey (CAT); Rahaim, John (CPC); Bollinger, Brett (CPC); Ionin, Jonas (CPC)  
**Cc:** Calvillo, Angela (BOS); Somera, Alisa (BOS); BOS Legislation, (BOS); Carroll, John (BOS)  
**Subject:** California Environmental Quality Act Appeal - Tentative Map Appeal - Golden State Warriors Event Center Project - Appeal Hearing on December 8, 2015  
**Categories:** 150990, 151204

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Thank you,

**John Carroll**  
**Legislative Clerk**  
Board of Supervisors  
San Francisco City Hall, Room 244  
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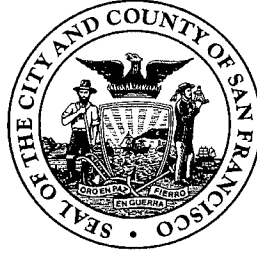
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BOARD of SUPERVISORS



City Hall  
1 Dr. Carlton B. Goodlett Place, Room 244  
San Francisco 94102-4689  
Tel. No. 554-5184  
Fax No. 554-5163  
TDD/TTY No. 544-5227

November 23, 2015

Thomas N. Lippe  
on behalf of the Mission Bay Alliance  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105

**Subject: Tentative Map Appeal - Proposed Golden State Warriors Event Center**

Dear Mr. Lippe:

This is in reference to the appeal you submitted concerning approval of the subject Tentative Map for properties located at:

Assessor's Block No. 8722, Lot Nos. 1 and 8.

Pursuant to Subdivision Code, Section 1314, an appeal hearing has been scheduled on **Tuesday, December 8, 2015, at 3:00 p.m.**, at the Board of Supervisors meeting to be held in City Hall, 1 Dr. Carlton B. Goodlett Place, Legislative Chamber, Room 250, San Francisco, CA 94102.

Please provide to the Clerk's Office by 12:00 noon:

**8 days prior to the hearing:** any documentation which you may want available to the Board members prior to the hearing.

For the above, the Clerk's office requests one electronic file (sent to [bos.legislation@sfgov.org](mailto:bos.legislation@sfgov.org)) and one hard copy of the documentation for distribution.

NOTE: If electronic versions of the documentation are not available, please submit 18 hard copies of the materials to the Clerk's Office for distribution. If you are unable to make the deadlines prescribed above, it is your responsibility to ensure that all parties receive copies of the materials.



If you have any questions, please feel free to contact John Carroll, Legislative Clerk, at (415) 554-4445.

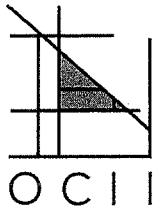
Sincerely,



*for* Angela Calvillo  
Clerk of the Board

c: Project Contact, GSW Arena LLC  
Jon Givner, Deputy City Attorney  
Kate Stacy, Deputy City Attorney  
Marlena Byrne, Deputy City Attorney  
John Malamut, Deputy City Attorney  
Mohammed Nuru, Director, Public Works  
Jerry Sanguinetti, Public Works-Bureau of Street Use and Mapping  
Fuad Sweiss, City Engineer, Public Works  
Bruce Storrs, Public Works  
Scott Sanchez, Zoning Administrator, Planning Department  
Sarah Jones, Planning Department  
AnMarie Rodgers, Planning Department  
Aaron Starr, Planning Department





office of  
COMMUNITY INVESTMENT  
and INFRASTRUCTURE

November 20, 2015

101-0772015-259

***Via Email and U.S. Mail***

Thomas N. Lippe, Esq.  
Law Offices of Thomas N. Lippe, APC  
201 Mission Street, 12<sup>th</sup> Floor  
San Francisco, CA 94105  
[Lippelaw@sonic.net](mailto:Lippelaw@sonic.net)

Re: Appeal of Office of Community Investment and Infrastructure ("OCII") Resolution Nos. 70-2015, 71-2015, and 72-2015 (Nov. 3, 2015) and Secondary Use Determination (Nov. 3, 2015) relating to the Golden State Warriors Event Center and Mixed-Use Development Project at Mission Bay South Blocks 29-32, an Environmental Leadership Development Project ("Project")

Dear Mr Lippe:

OCII is in receipt of your appeals dated November 13, 2015 regarding the above-referenced actions of the Commission on Community Investment and Infrastructure and its Executive Director (the "Appeals"). OCII received these Appeals in two separate letters on November 13, 2015 before the close of business. Previously, OCII informed you, by email and attachment dated November 16, 2015, 05:09 p.m., of its determination that we had accepted your appeal of OCII Resolution No. 69-2015 certifying the Final Subsequent Environmental Impact Report ("FSEIR") under the California Environmental Quality Act ("CEQA") for the Project (the "Certification Appeal"). This letter addresses your other Appeals, which do not directly challenge the FSEIR certification, but rather relate to project approvals.

OCII accepted the Certification Appeal under its policy governing appeals of EIR certifications. OCII Resolution No. 33-2015 ("Appeal Policy"). The Appeal Policy covers only the certifications of certain environmental impact reports ("EIR") for projects qualifying as Environmental Leadership Development Projects under state law, the Environmental Leadership Act of 2011, Cal. Public Resources Code §§ 21178 *et seq.*, and is not required by, or intended to function as, an appeal pursuant to Cal. Public Resources Code § 21151(c). OCII's Appeal Policy provides a special appeal process to the Board of Supervisors of the City and County of San Francisco, acting in its capacity as the governing body of the Successor Agency to the Redevelopment Agency ("Board of Supervisors") as to whether the EIR complies with CEQA. The Appeal Policy does not provide for the review and appeal of CEQA findings prepared pursuant to CEQA Guidelines § 15091, statements of overriding consideration prepared pursuant to CEQA Guidelines § 15093, or other actions related to OCII's approval of such projects.

Edwin M. Lee  
MAYOR

Tiffany Bohee  
EXECUTIVE DIRECTOR

Mara Rosales  
CHAIR

Miguel Bustos  
Marilyn Mondejar  
Leah Pimentel  
Darshan Singh  
COMMISSIONERS

One S. Van Ness Ave.,  
5th Floor,  
San Francisco, CA  
94103

415 749 2400

[www.sfocii.org](http://www.sfocii.org)

Under state and local law, OCII is a public entity separate from the City and County of San Francisco and has the final decision-making authority over projects that fulfill certain enforceable obligations entered into by the former Redevelopment Agency. One of these obligations is the



Mission Bay South Owner Participation Agreement ("OPA") whereby the Redevelopment Agency, and now its successor, OCII, must review and consider approval of projects subject to the Mission Bay South Redevelopment Plan ("Redevelopment Plan"), such as the Project. The California Department of Finance has finally and conclusively determined that implementation of the OPA has survived the dissolution of the Redevelopment Agency and is a continuing obligation of OCII. In this regard, OCII, as the successor agency, "succeeds to the organizational status of the former redevelopment agency" with the authority to "complete any work related to an approved enforceable obligation." Cal. Health & Safety Code § 34173 (g). Until its dissolution in early 2012, the Redevelopment Agency exercised land use authority under the Redevelopment Plan and OPA and finally approved numerous projects.

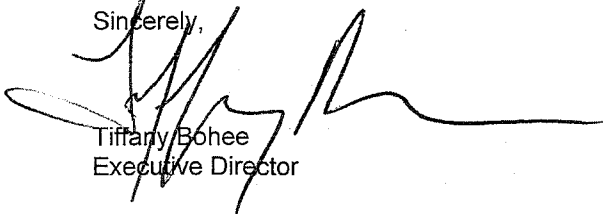
When state law dissolved the Redevelopment Agency, the Board of Supervisors became the governing body of the Successor Agency to the Redevelopment Agency under the authority of the Redevelopment Dissolution Law, Cal. Health & Safety Code §§ 34170 *et seq.* In that state-authorized capacity, the Board of Supervisors delegated its statutory authority to a mayoral-appointed commission to "act in place of the former [Redevelopment Agency] commission . . . to implement modify, enforce and complete the surviving redevelopment projects, . . . to exercise land use, development and design approval authority" for surviving redevelopment projects, and to "take any action that the Redevelopment Dissolution Law requires or authorizes on behalf of the Successor Agency. . ." SF Ordinance No. 215-12 (Oct. 4, 2012).

OCII was acting under this delegated state authority in adopting CEQA findings, including adopting a mitigation monitoring and reporting program and a statement of overriding consideration (Resolution No. 70-2015), approving amendments to the Mission Bay South Design for Development (Resolution No. 71-2015), conditionally approving a major phase and design applications (Resolution No. 72-2015), and determining the event center is a permitted secondary use under the Plan. None of these actions would have been appealable to the Board of Supervisors if they had been made by the former Redevelopment Agency. No provision of Redevelopment Dissolution Law, CEQA, local law, or the Appeal Policy now provides for an appeal of these actions related to project approvals to the Board of Supervisors.

While no appeal is available from OCII's approval of the Secondary Use Determination and Resolution Nos. 70-2015, 71-2015, and 72-2015, if the Board – in response to the Certification Appeal – reverses OCII's certification of the SEIR, then "prior project approvals would be rescinded to allow CCII to, if and as necessary, adopt additional findings, revise the F[S]EIR, or amend the project approvals." Letter, T. Bohee to A. Calvillo, Clerk of the Board, at page 2 (Nov. 12, 2015), available at <http://www.sfbos.org/Modules/ShowDocument.aspx?documentid=54283>.

Accordingly, I have determined that the Appeals do not comply with the standards under the Appeal Policy and thus reject the Appeals.

Sincerely,



Tiffany Bohee  
Executive Director

cc: John Malamut, Deputy City Attorney



## Carroll, John (BOS)

---

**From:** Carroll, John (BOS)  
**Sent:** Friday, November 20, 2015 3:28 PM  
**To:** CPC-WarriorsAdmin  
**Cc:** BOS Legislation, (BOS); Somera, Alisa (BOS); Gosiengfiao, Rachel (BOS)  
**Subject:** Transmittal of Content Received by the Office of the Clerk of the Board Re: GSW Project Appeals  
**Attachments:** Appeal Ltr 111915.pdf; Appeal Ltr 111315.pdf; Att 2\_GSW Notice Distribution List.docx; Emails Re Approvals Appeal to BOS 111615.pdf; OCII Memo 111215.pdf; OCII Memo 111615.pdf

Attaching:

Materials our office is adding to the new Board of Supervisors hearing files for the FEIR certification and Tentative Map Appeals.

Please let me know if this is all you need or expect for this transmittal. If you require any additional materials or coversheets or anything for these transmittals in the future, please just let us know.

Regards,

**John Carroll**  
**Legislative Clerk**  
Board of Supervisors  
San Francisco City Hall, Room 244  
San Francisco, CA 94102  
(415)554-4445 - Direct | (415)554-5163 - Fax  
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**Golden State Warriors Event Center & Mixed Use Development Project – Notice Distribution List**

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## **Carroll, John (BOS)**

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**From:** Somera, Alisa (BOS)  
**Sent:** Monday, November 16, 2015 1:37 PM  
**To:** Malamut, John (CAT); Van de Water, Adam (ECN); Bollinger, Brett (CPC)  
**Cc:** Carroll, John (BOS); CPC-WarriorsAdmin; Calvillo, Angela (BOS)  
**Subject:** FW: Warriors Arena Project: Appeal of OCII actions  
**Attachments:** C019 OCII Approvals Appeal to Clerk of BOS.pdf; ATT00001.htm

All,

FYI, I am forwarding the below email and attachments. As John Carroll had informed you last week, the individual attempted to file an appeal for the Warriors project with the COB and was informed by John that it needed to be filed with OCII.

The attached should also be added to the administrative record.

Lisa

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**From:** Carroll, John (BOS)  
**Sent:** Monday, November 16, 2015 12:48 PM  
**To:** Somera, Alisa (BOS) <alisa.somera@sfgov.org>  
**Cc:** Calvillo, Angela (BOS) <angela.calvillo@sfgov.org>  
**Subject:** Fwd: Warriors Arena Project: Appeal of OCII actions

Hi, Alisa,

I'm forwarding this to you as FYI. He told me that he had filed a duplicate of this to OCII, and that he was trying to file with us also, even though he didn't know what the jurisdiction to do so was. He let me know that the version he filed with OCII was identical, with the exception that this version is addressed to COB.

Let me know if anything comes up. I'll be in feeling better tomorrow.

John Carroll

Begin forwarded message:

**From:** Tom Lippe <lippelaw@sonic.net>  
**Date:** November 16, 2015 at 10:47:23 PST  
**To:** <john.carroll@sfgov.org>  
**Cc:** Susan Brandt-Hawley <susanbh@preservationlawyers.com>, Patrick Soluri <patrick@semlawyers.com>, Osha Meserve <osha@semlawyers.com>  
**Subject:** Warriors Arena Project: Appeal of OCII actions

Dear Mr. Carroll

This will confirm that I appeared at the Office of the Clerk of the Board of



Supervisors on Friday (November 14, 2015) at about 3:00 pm and asked to file appeals of the following actions taken by the Office of Community Investment and Infrastructure on November 3, 2015 regarding the Warriors Arena Project:

- Resolution 71-2015, approving amendments to the Mission Bay South Design for Development;
- Resolution 72-2015, approving the Major Phase application; and
- Executive Director' s Secondary Use Determination;

and that you declined accept or file the appeals on the ground the Board of Supervisors does not have appellate jurisdiction over these OCII actions.

A copy of the letter I presented to you on Friday, without exhibits, is attached.

Thank you for your courtesy and consideration regarding this discussion.

--

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November 13, 2015

Angela Calvillo  
Clerk of the Board of Supervisors  
1 Dr. Carlton B. Goodlett Place  
City Hall, Room 244  
San Francisco, Ca. 94102-4689

**Re: Notice of Appeal and Appeal of November 3, 2015, Commission on Community Investment and Infrastructure and Executive Director Approval Decisions for Warriors Arena Project:**

- **Resolution 71-2015, approving amendments to the Mission Bay South Design for Development;**
- **Resolution 72-2015, approving the Major Phase application; and**
- **Executive Director's Secondary Use Determination.**

Dear Ms Calvillo:

This office represents the Mission Bay Alliance ("Alliance"), an organization dedicated to preserving the environment in the Mission Bay area of San Francisco, regarding the project known as the Event Center and Mixed Use Development at Mission Bay Blocks 29-32 ("Warriors Arena Project" or "Project").

The Mission Bay Alliance hereby appeals:

1. Resolution 71-2015, approved by the Commission on Community Investment and Infrastructure on November 3, 2015, approving amendments to the Mission Bay South Design for Development, attached hereto as Exhibit 1.
2. Resolution 72-2015, approved by the Commission on Community Investment and Infrastructure on November 3, 2015, approving the Major Phase application for the Project, attached hereto as Exhibit 2.
3. Office of Community Investment and Infrastructure, Executive Director's Secondary Use Determination, dated November 3, 2015, attached hereto as Exhibit 3.

The grounds for these appeals are as follows.

1. The Event Center is not an allowable or conditional secondary use under section 302.4 of the Mission Bay South Redevelopment Plan, and even if it is, the Director cannot make the findings



Angela Calvillo

Clerk of the Board of Supervisors

**Re: Notice of Appeal and Appeal of Resolution 71-2015, Resolution 72-2015, and  
Secondary Use Determination**

November 13, 2015

Page 2

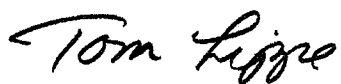
required for a secondary use required by section 302 of the Plan. These grounds are explained in detail in the November 2, 2015, letter from Susan Brandt-Hawley to the OCII regarding the Secondary Use Determination, attached hereto as Exhibit 4 and incorporated herein by reference.

2. The November 2, 2015, letter from Susan Brandt-Hawley attached as Exhibit 4, demonstrates this Project is not an allowable secondary use under the Plan. Thus, a variance is not available because, as shown by Ms Brandt-Hawley, the Project “will change the land uses on this Plan.” (Plan, § 305.) However, in the alternative, if the Project is an allowable secondary use under the Plan, then the OCII must process this Project application as a variance and make the findings required by Plan section 305 before Project approval; and the failure to do so is an abuse of discretion. These grounds are explained in detail in the November 2, 2015, letter from Thomas N. Lippe to OCII re: Warriors Arena Project, Violation of Variance Requirement, attached hereto as Exhibit 5 and incorporated herein by reference.

3. By approving the Project, which is defined as including the “Transportation Management Plan” setting forth the City’s financial commitments to fund mitigation measures addressing the Project’s transportation impacts, the City unlawfully committed to an economic development subsidy without prior public notice and disclosure required by Government Code section 53083. (See, November 2, 2015 letter from Soluri Meserve, pp. 14-17; November 3, 2015 letter from Soluri Meserve to SFMTA, pp. 2-4, and Exhibit 1, report dated November 2, 2015 by Jon Haveman, Ph.D. entitled “Warriors Stadium Economics: Uncertainty and Alternatives”; Oral comments by Demetri Blaisdell, on behalf of Mission Bay Alliance, to the SFMTA on November 5, 2015.)

Thank you for your attention to this matter.

Very Truly Yours,

A handwritten signature in black ink that reads "Tom Lippe". The signature is written in a cursive, flowing style.

Thomas N. Lippe



# Introduction Form

By a Member of the Board of Supervisors or the Mayor

Time stamp  
or meeting date

I hereby submit the following item for introduction (select only one):

- ☐ 1. For reference to Committee. (An Ordinance, Resolution, Motion, or Charter Amendment)
- ☐ 2. Request for next printed agenda Without Reference to Committee.
- ☒ 3. Request for hearing on a subject matter at Committee.
- ☐ 4. Request for letter beginning "Supervisor  inquires"
- ☐ 5. City Attorney request.
- ☐ 6. Call File No.  from Committee.
- ☐ 7. Budget Analyst request (attach written motion).
- ☐ 8. Substitute Legislation File No.
- ☐ 9. Reactivate File No.
- ☐ 10. Question(s) submitted for Mayoral Appearance before the BOS on

Please check the appropriate boxes. The proposed legislation should be forwarded to the following:

- ☐ Small Business Commission      ☐ Youth Commission      ☐ Ethics Commission
- ☐ Planning Commission      ☐ Building Inspection Commission

**Note: For the Imperative Agenda (a resolution not on the printed agenda), use a Imperative Form.**

**Sponsor(s):**

**Subject:**

**The text is listed below or attached:**

Hearing of persons interested in or objecting to the certification of the Final Subsequent Environmental Impact Report for the proposed Golden State Warriors Event Center and Mixed-Use Development Project at Mission Bay South Blocks 29-32, an Environmental Leadership Development Project, as defined by California Public Resources Code, Section 21183, that consists of a multi-purpose mixed-use event center including office, retail, open space, and parking on an approximately 11-acre site within the Mission Bay South Redevelopment Plan Area, adopted by the Commission on Community Investment and Infrastructure (CCII) on November 3, 2015, through CCII Resolution No. 69-2015. (District 6) (Appellant: Thomas N. Lippe, APC, on behalf of the Mission Bay Alliance) (Filed November 13, 2015).

150990



Signature of Sponsoring Supervisor:

*Alisa Jomera*

For Clerk's Use Only: